

GIBBY'S GUIDE TO THE QUEST 2!

BUMPER 130-PAGE ANNUAL EDITION!

50,000
DOWNLOADS!

NOW AVAILABLE AS A
PODCAST!



A FREE MONTHLY ALTERNATIVE ZINE!
V13 | DECEMBER 2021



MEET THE DEV!
JAKE KAZDAL



SONG
+ THE
SMOKE

PLUS! BEGINNER'S GUIDE! | TOP 100 GAMES RANKED AND REVIEWED! | 200+ FEATURED TITLES!

FULLY

**CLICK ON ANY iCON TO
TAKE YOU TO THE CONTENT!**

iNTERACTIVE!

BRAND NEW

**GO TO THE BLUE REFERENCE
PAGES TO GET STARTED!**

TO QUEST 2?

10
100
GAMES
RANKED!

GAMES &
APPS!



 CIBBY'S GUIDE
 GAME OF
 THE YEAR!
 SONG IN
 THE SMORE
 2021

22
MEET THE DEVS!

103
FILMS &
ANIMATIONS!

124
GETTING STARTED!

KEY!



hand tracking



best in roomscale



adventure



puzzle



sports game



ar passthrough



perfect for seated



roomscale essential



fitness



creator tool



meditation



possible motion
sickness

HAPPY HOLIDAYS!

PATREON LAUNCH!

SUBSCRIBE!
PATREON.COM
/GIBBYSGUIDE



SEE PAGE 5!

HELP KEEP
THIS GUIDE
FREE & AD-FREE!

GAME OF THE YEAR!

Announcing the best game of 2021 and the new number one title in this guide, **song of the smoke**. Meet the mind behind the primal survival adventure, Jake Kazdal, and ten other developers in this special 130-page bumper annual edition!

PODCAST!

Listen to Ep 3 'Inside Jake's Lizard Brain & Other Primal Stuff!' Available on Spotify & Apple Podcasts!



FREE STUFF!



Check out v12 of the guide for 132 free & quality experiences to install right now! There's a list of the best 72 free games & demos plus 48 films and animations!

RANKED!



Look out for these guarantees of fresh, quality ingredients - according to me!

QUEST STORE!

The official store. It is what it says on the tin! Browse all the content [here](#).

APP LAB!

The official non-official store! Over 600 apps and counting. Go [here](#).

SIDEQUEST!

The non-official store! Now available as an Android app! See [here](#) and [here](#).

WHY 'ALTERNATIVE'?

A handful of games are pushed hard and dominate a lot of VR space. I like to make positive recommendations of the stuff I like and look beyond the best-sellers. It all comes down to personal choice in the end - each to their own! All the titles in this guide are native to Quest 2, no PC required!
gibby@gibbysguide.org

SUBSCRIBE! HELP KEEP THIS GUIDE FREE & AD-FREE!



A message to you, dear reader!

What began as a pandemic passion project has grown into a monthly up-to-date zine with developer interviews, competitions, news and reviews and even a podcast. The feedback has been amazing and the guide has reached 50,000 downloads.

This bumper annual edition is the fruit of all that labour. As it grows, I don't want to go down the route of accepting freebies and sponsorship and risk being accused of favours and hype.

I don't want to put it behind a paywall, it's more useful to the VR community if it's free. So I've chosen go a third way, paying for all apps, supporting the developers and being ad-free because I believe what people value most is an unbiased and independent view.

So, I'm asking for your support. If you find this guide helpful - or maybe it's even saved you some money! - become a Patreon. If not, enjoy it anyway! Thank you for listening.

patreon.com/gibbysguide

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I'm all-in!



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You are subscribed, an official supporter and all-in!

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**NOW AVAILABLE AS A
PODCAST!**

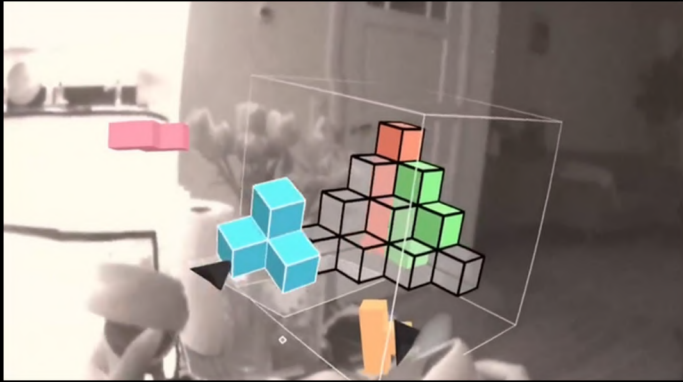
EPISODE THREE *INSIDE*
JAKE'S LIZARD BRAIN
& OTHER PRIMAL STUFF!



AD FREE! LISTEN **HERE, OR SUBSCRIBE
ON APPLE PODCASTS & SPOTIFY.
JUST SEARCH FOR 'GIBBY'S GUIDE'**

NEW FOR QUEST 2!

cubism passthrough beta testing puzzler!



grapple tournament multiplayer goes live!



resist swing through the city!



unplugged: air guitar time to rawk!



simple planes vr diy flying!



vault of stars eco fantasy!



luna episode one!



the school trip more tales from soda island!



plus **updates** & **dlds** ...



COMING in 2022!

little cities world builder II!



cities vr world builder II!



ziggy's cosmic adventures cockpit fun!



green hell amazonian survival!



moss: book II tbc for quest 2

garden of the sea ...

ultimechs ...



ruins magus ...

propagation paradise hotel ...



COMING in 2022!

wanderer time travelling!



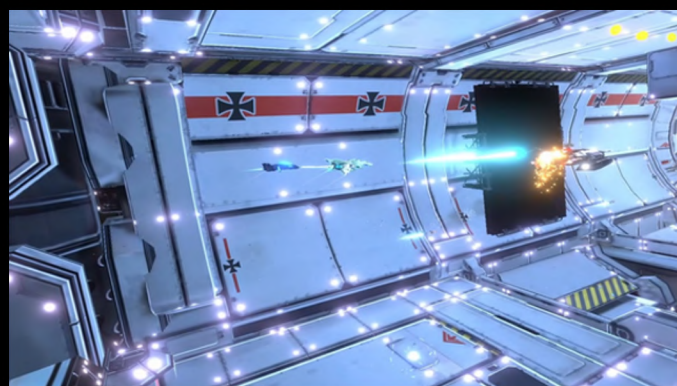
lost recipies learning lost arts of cooking!



the amusement impossible spaces!



2076 midway multiverse pancake to VR!



the last worker survival at amazon!



ultrawings II combat flying sequel!



vertigo 2 ...



twilight zone vr ...





best of the quest!

Here's my personal favourite 100 games - ranked!

one! game of the year!



song in the smoke 🟢 🚗
app | \$30
soul, spirit, survival

two!



pistol whip 🏠 ❤️
app | \$30
shoot to the beat in a
cinematic bullet hell!

three!



audio trip 🏠 ❤️
app | \$20
rave to quality tunes with
top-class choreography!

four!



red matter 🟢
app | \$25
surreal & spectacular
sci-fi adventure in space

five!



the climb 2 ❤️ 🟢 🎯
app | \$30
epic free solo climbing -
now with skyscrapers!

six!



down the rabbit hole 🟢 🚗
app | \$20
gorgeous alice in
wonderland prequel!

seven!



the room vr 🟢 🚗
app | \$30
detective mystery!

eight!



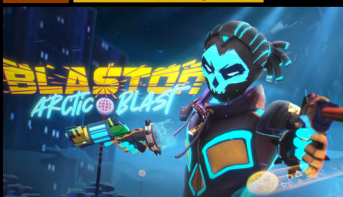
moss 🟢 🚗
app | \$30
magical mouse diorama!

nine!



crashland 🏠
app | \$20
aaaaaarrrrrrrgggggghhhh!

ten! multiplayer!



blaston 🏠 ❤️ 🎮
app | \$10
duelling AI or randoms!

eleven! multiplayer!



real vr fishing 🟢 🚗
app | \$20 (+\$12 dlc)
Now fish in the US West!

twelve!



yupitergrad 🟢 🎯
app | free demo | \$15
superb Slavic spiderman!

* free demo on sidequest!

thirteen to twenty-four!

Buy and try on the official store - you get an automatic refund if you've played for less than two hours and within 14 days of purchase. And look out for sales!

thirteen! multi!



eleven table tennis 🏠🎮

app | \$20

AI ping & multiplayer pong!

fourteen!



i expect you to die 2 🚶🧩

app | \$20

welcome back, agent!

fifteen!



phantom: covert ops 🕒🚶

app | \$30

stealth kayaking?! oh, yeah!

sixteen!



superhot vr 🏠❤

app | free demo | \$25

the matrix!

seventeen!



tea for god 🏠👉

app lab | free demo

non-euclidean geometry!

eighteen!



a fisherman's tale 🏠🧩

app | \$15

macro to micro seafaring!

nineteen! multi!



the under presents 🕒

app | free | \$ in-app

open world theatrics!

twenty! multi!



walkabout mini-golf 🎮

app | \$15 + \$3 dlcs

pitch 'n' putt with friends!

twenty-one!



star wars: tales from 🕒🚶

the galaxy's edge app | \$35*

child's play but epic optics!

* including DLC 'Last Call'

twenty-two! new!



resist 🕒🚶🕒

app | \$20

fast grapple action!

twenty-three!

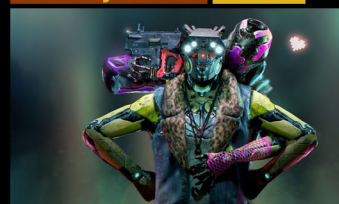


waltz of the wizard 🕒👉

app | \$20

natural magic!

twenty-four! multi!



space pirate trainer dx 🏠

app | \$25

trailblazing arena mode!

twenty-five to thirty-six!

twenty-five!



squingle 🧩

app lab | free demo | \$15
totally trippy puzzler!

twenty-six! multi!



traVRsal 🏠

app lab | free
natural walking in VR!

twenty-seven!



virtuoso 📱 🎮

app lab | free
trip out on your own loops!

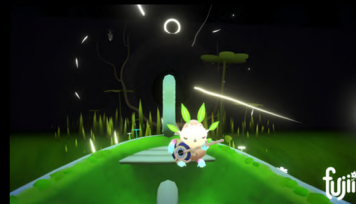
twenty-eight!



stride 🏠 ❤️

app | \$15
parkour madness!

twenty-nine!



fujii 🧑 🎮

app | \$15
kaleidoscopic gardening!

thirty!



holopoint 🏠 🎮 ❤️

app | \$15
intense ninja archery!

thirty-one!



lies beneath 🕵️

app | \$30
graphic novel thriller!

thirty-two!



shadow point 🕵️ 🎮

app | \$20
mystery in Inverness!

thirty-three!



myst 🕵️ 🎮

app | \$30
remake of 1993 classic!

thirty-four! multi!



ragnarock 🎮

app | \$25
crazy viking rhythm race!

thirty-five! new!



unplugged: air guitar 🎸 🎮

app | \$25
hand tracking guitar hero!

thirty-six!




thrill of the fight 🏠 🎮 ❤️

app | \$10
down-at-heel in-yr-face!

thirty-seven to forty-eight!



thirty-seven!



daedalus 
app | \$5
 amazing flying sensations!

thirty-eight!



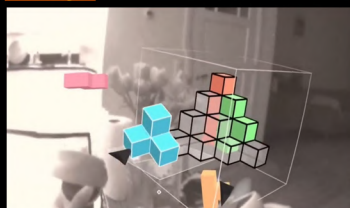
crazy kung fu   
app lab | **free demo** | \$10
 now with passthrough!

thirty-nine! **new!**



vinyl reality lite 
sidequest | **free**
 put the needle on the record!


forty!



cubism     
app | \$10
 puzzle, piano & passthrough!

forty-one!



ARK-ADE 
app lab | **free demo** | \$20
 inside the game Tron style!


forty-two!



deisim 
app lab | \$8
 be a powerful God!

forty-three! **multi!**



wander 
app | \$10
 google street view!



forty-four! **multi!**



multibrush 
app lab | **free**
 three-dimensional painting!



forty-five!



gadgeteer  
app | \$15
 incredible machine building!

forty-six! **multi!**



carly and the reaperman  
app | \$20
 play with non-VR in co-op!



forty-seven!



carve  
app | \$20
 smooth snowboarding!

forty-eight!



wind wind  
app lab | \$20
 cute Korean diorama!

forty-nine to sixty!

forty-nine! multi!



racket nx 🏠❤️🎮
app | **free demo** | \$20
 some kinda future squash!

fifty! multi!



guardians 🚗
app lab | \$20
 sci-fi strategy shooter!

fifty-one!



ancient dungeon 🎮
app lab | **free demo** | \$20
 hilarious pixel adventure!

fifty-two! multi!



warplanes 🎮🚗
app | **free demo** | \$10
 Great War missions!

fifty-three!



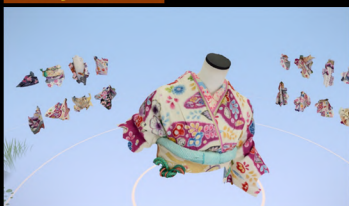
directive nine 🚗
app lab | \$13
 moody sci-fi shooter!

fifty-four!



time stall 🏠🧩
app | \$15
 save the captain!

fifty-five!



puzzling places 🚗🧩
app | \$15
 photogrammetry jigsaws!

fifty-six!



DAVID 🚗
app lab | \$15
 sleek 3rd person shooter!

fifty-seven! multi! new!



grapple tournament 🏠
app lab | \$15
 swinging mechanic shooter!

fifty-eight!



gravity lab 🧩
app | \$15
 physics head scratchers!

fifty-nine!



custom home mapper 🏠
sidequest | \$8
 map your entire house!

sixty!



gladius 🏠
app lab | \$15
 comedy gore!

sixty-one to seventy-two!

sixty-one!



help yourself

app lab | free

unique clone co-op!

sixty-two!



invaders

app lab | \$15

kitsch arcade tower defence!

sixty-three!



windlands 🌿 🌀

app lab | \$15

classic grapple adventure!

sixty-four!



a rogue escape 🏠 🧩

app | \$20

underwater escape room!

sixty-five!



cosmodread 🌀

app | \$15

terrifying space maze!

sixty-six! **multi!**



to the top 🏠

app lab | \$20

rooftop to rooftop!

sixty-seven!

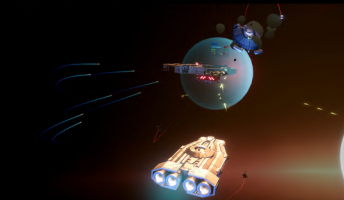


hand physics lab 🧑‍🔬 🧩 🤖

app | \$10

zany hand tracking tricks!

sixty-eight!



eternal starlight 🚀 🤖

app | \$20

tactical space battles!

sixty-nine!



art plunge 🚀

app lab | \$2

masterpieces come alive!

seventy!



warchasm 🚀

app lab | \$13

rockin' and railin'!

seventy-one!



the final overs 🏠 🎱

app lab | \$15

knock 'em for six!

seventy-two! **multi!**



chess club 🚀 🧩 🤖

app | \$15

battle chess in Stonehenge!

seventy-three to eighty-four!

seventy-three!



BRINK traveler

app | \$10

photogrammetry tourism!

seventy-four!



the curious tale of 🧩🏠👉

the stolen pets app | \$15

touch that cuteness!

seventy-five!

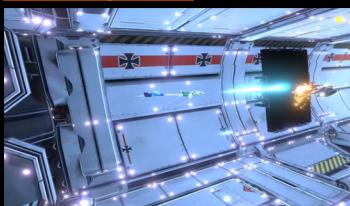


HAX

app lab | **free demo**

cel-shaded shooter!

seventy-six!



2076 midway multiverse

app lab | **free demo**

immersion zone!

seventy-seven!



arrows

app lab | **free demo** | \$10

defend the villages!

* free demo on sidequest!

seventy-eight!



galaxy forces vr 🧑🏠

app lab | **free**

1980s wet dream!

seventy-nine! **multi!**



war yards

app lab | **free**

gunslingin' guffaws!

eighty! **multi!**



black hole pool 🎱

app lab | **free demo** | \$10

brilliant cue action!

eighty-one!



city of eternity

sidequest | **free**

get chased - by yourself!

eighty-two!



flowbourne 🧘

app lab | \$10

breathing meditation!

eighty-three!



tiny castles 👉

app lab | **free**

incredible hand tracking!

eighty-four!



v-speedway 🏎️🎱

app lab | **free**

arcade racing!

eighty-five to ninety-six!

eighty-five!



wrong voyage ex 🕒
sidequest | free
 spiders! zombies! retro!

eighty-six!



spacewalker vr 🚀
app lab | \$7
 go Earth gazing!

eighty-seven!



vault of the stars 🚀 🕒
app lab | \$10
 eco-fantasy takes flight!

eighty-eight!



flux ball 🏠
app lab | free
 glove & gun, catch & shoot!

eighty-nine! multi!



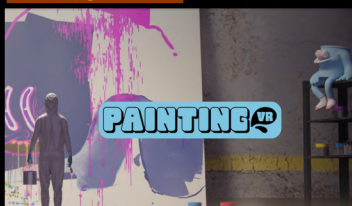
do you copy? 🏠
sidequest | \$13
 thief in VR, hacker on PC!

ninety!



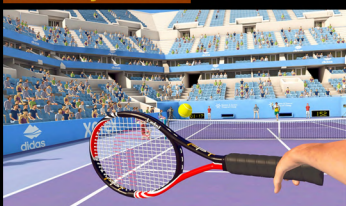
grooVR 🚀
app lab | \$20
 drum Brazilian death metal!

ninety-one!



painting VR 🏠 📝
app lab | \$10
 realistic art creation!

ninety-two!



first person tennis 🏠 🎾
app lab | \$23
 get your Raducanu on!

ninety-three! multi!



gorilla tag 🏠 ❤️
app lab | free
 daft monkey business!

ninety-four!



gravity sketch 🚀 📝
app | free
 3D design and modelling!

ninety-five! multi!



acron: attack of the squirrels! 🐿️ **app** | \$20
 family party game!

ninety-six!



exit condition one 🏠
app lab | free demo
 experimental escape room!

ninety-seven to one hundred!

ninety-seven!



neon kite 🎈
app lab | \$7
glide and vibe!

ninety-eight!



just hoops! 🏀👤
app lab | \$10
bare hands basketball!

ninety-nine!



peco peco 🧩
app lab | \$10
remix giant puzzles!

one hundred!



zombies in your home 🧟
sidequest | free demo
passthrough zombie scares!



older stuff!

Bonus! These titles have been ported from their original on the Oculus Go

multiplayer!



alcove

app | free

ever-evolving social VR
for families



oxygen dreams 🕹️

app lab | \$3

another pixel adventure by
the 'wrong voyage ex' dev!



nature treks 🧘👤

app | \$10

meditation in vivid wild
environments



coaster combat 🎮

app | \$10

theme park ride action!



thumper

app | \$20

you need insane reactions
to beat the boss!



dead and buried II

app | \$20

comedy cartoon zombie
cowboys attack!



end space

app | \$15

star wars!



bait! 🎣👤

app | free

silly hippy fishing!



ultrawings 🛩️

app | \$15

relaxing arcade flight sim



cosmic flow 🧘👤

app lab | free

fractal meditation



anne frank house 🏠

app | free

explore the house of
WWII diarist Anne Frank



mission: iss 🚀

app | free

zero gravity inside the
international space station

weird & wonderful!

Bonus! Really random shit that pops up on App Lab and Sidequest!



playing VR with girlfriend
app lab | \$10
 just ... no.



high voltage electrical substation training
app lab | free
 catchy name, hot app!



dissection simulations 🧩
app lab | \$25 each
 cat, shark, frog and pig editions!



VR pigeons ❤️
app lab | \$3
 do yourself a favour -
 just watch the trailer!



beers and boomerangs
app lab | free demo
 throw another shrimp on
 the barbie, mate!



replika 🚗
app lab | free
 it's Spike Jonze's *Her*!



into the metaverse 🚗
app lab | free demo
 the story of storytelling!



don't upset bobby 🧩
app lab | free
 threatening freak doll!



rollercoaster vr box ☹️
sidequest | free
 genius vomit fest!

multiplayer!



golf pool vr 🎱
app lab | \$6
 ... on the moon!

multiplayer!



flying squirrel chase 🏠
app lab | free
 flap your wings!



who do you voo doo 🚗
app lab | \$1
 name your doll and kill!

TRAVRSAL! ROBERT WETZOLD

JAREK CIUPIŃSKI TEA FOR GOD!

LAVRYNTHOS! FABITO RYCHTER

LLŶR AP CENYDD CRASHLAND!

ELEVEN TABLE TENNIS! ROMAN REHKLER

JAKUB MATUSZCZAK YUPITERGRAD!

AUDIO TRIP! ASHLEY COOPER & BRADY WRIGHT

JONATAN CRAFOORD VIRTUOSO!

SQUINGLE! BENJAMIN OUTRAM

JAKE KAZDAL SONG IN THE SMOKE!

HAND PHYSICS LAB! DENNYS KUHNERT



TALES FROM AROUND THE WORLD! SWITZERLAND | USA | WALES | SWEDEN

MEET THE DEVS!

GERMANY | POLAND | BRAZIL | ENGLAND | JAPAN

Dennys is a neuroscientist who wants you to cut off your own hands ... Ashley and Brady fell in love and gave birth to a virtual rave ... Llŷr is a university lecturer who created a hit horror title in his spare time ... Jonatan is a musician who has invented new instruments you can play without touching ... Roman has designed the world's best sports simulator ... Impossible Robert would like you walk forever ... Jakub wants you to be a Slavic kosmonaut ... Fabito is a former TV producer who quit his job to make VR theatre ... Jarek is an expert in non-Euclidean geometry ... Benjamin went from studying liquid crystals to creating trippy puzzles ... and Jake just wants you to be a caveman.

COVER FEATURE

SONG IN
THE SMOKE



SURVIVAL SPIRIT

MEET THE DEV! JAKE KAZDAL

ANOTHER WORLD

Song In The Smoke is a simulated survival in a prehistoric universe

Sometimes VR can give you amaze-fatigue. And then once in a while an experience comes along that just floors you once more. That game is Song In The Smoke.

I've spent the last month living as a caveman. Hiding out, making fires, drying pelts, roasting meat. Planning my next attack. I'm still getting over that desperate dash yesterday, blindly running around in the pitch black trying to find a purple herb that was my only salvation against bleeding to death. At least the hyena came off worse.

I'm worrying about how I'm going to eat today. I'm gonna have to fix my bow. I'll have to club a beast to death before nightfall to get their guts for the string.

'Oh the daily woes of a humble *homo sapiens*'

OK, gotta build another dying rack. Craft a new knife - it's on its last legs. Make some arrows. Oh the daily woes of a humble *homo sapiens*.

Song Of The Smoke is an extensive survival simulator full of mythical fantastic creatures, a wild world that takes you on an almost spiritual journey.

It's less of a game and more of a parallel existence, living alone against the odds. It's totally compelling, all-consuming.



I'll think about how I'll try to poison the lion while I'm shopping. I'm saying 'hi' to people but really I'm just thinking whether I should make the next campsite behind the waterfall (I can trap animals down a one-way alley) or if it'd be better nearer the river (easier to find wood down there).

This heavyweight title comes from 17-bit, an indie studio based in Kyoto, Japan. Jake Kazdal is the creative lead of a 15-strong team that was in production for four-and-a-half years.

'I'd wanted to do a prehistoric man-themed survival engagement in the frozen north with these big beasts, making fires,' says Jake.

'I realised that in simulations the tendency is that you ask too much of the player. So I had this mantra: 'Let's simplify'. Let's create a world that is simple enough that it can live on its own, and the player is going to have absolute freedom to do whatever they want.

'I wanted to create a beautiful, languid, juicy world'

'The game doesn't force you to do much. You could sit in one area and just hunt deer and make clothing, eat berries and watch sunsets and do whatever you want for as long as you want.

'I wanted to create a beautiful, languid, juicy world to just walk around in and to sing on its own. As soon you understand the rules of the world you can just exist in the space. The day comes and then the night comes. A rock has inherent properties. I can pick it up, I can throw it. I know what to expect from a rock.



'I know that if I hear a growl around the corner of something that I can't identify I'm scared. I really wanted to play with these basic level instincts, with the fears and the triumphs.'

One of the key collaborators was the artist Katsuya Terada, known as 'the doodle king'.

'I didn't want to just do standard issue caveman stuff, everyone's seen that a thousand times. I was like 'can we *not* do sabre-toothed tigers and woolly mammoths?!

'And Terada-san just started coming back with these crazy creatures and I was like 'You know what? Fuck it!'. There's that little bird-like ferret thing that's got three tails.

He just started coming up with this weird shit and I was like 'Yes! We are going all in. Why not?!' he laughs.

Song Of The Smoke opens with a huge three-headed crow with the face of a hag, beating its wings. Beckoning.

'Everybody's response is just like 'Wooah!'

'It's the first thing you see in the game. And everybody's response is just like 'Wooah!'. Everybody falls out of their chair. Let's just establish the tone right away. This not the world you think it is. There's a lot going on here and expect the unexpected,' he says.

Jake was born in Seattle, Washington, and grew up during the heyday of arcade games in the '80s.

'The sense of control and understanding of space in these early games was absolute. As games moved into 3D, your space within it became much more ambiguous, muddled,' he says.



'Portraying a 3D world on a 2D flat screen takes away much of the understanding of the space and you are crippled. It's honestly driven me crazy.

'I also hate camera in games. I don't want to be the camera man, I want to focus on my job which is sliding around and jumping off things and hitting guys!

'Everything I wanted games to come back to, VR magically satisfies'

'So everything that I wanted games to come back to, VR magically satisfies. Suddenly you've got actual 3D depth, you've got real world scale, you've got an inherent understanding of the whole world around you.

'And most importantly, the camera is the one you were built with. It's your neck, and your eyeballs, which you've been using since the day you were born. You have absolute control over it and you don't even think about it. It's perfect.

'All of a sudden there's the whole new generation of video games and it's so much more than anything that has come before,' says Jake.

An early adopter, Jake secured some VR development kits and scoured the internet for tech demos. His first experiences left their mark.

'I was just absolutely flattened. I couldn't believe how incredible it was and how scared I was.

BECOMING A CAVEMAN!

getting started! a reference guide to get you on your feet **overleaf**

tips and tricks! survival tutorials from the developers **here**

spoiler alert! from Chapter 4 The Cathedral (no commentary) **here**

'I was just blown away by how much more engaging and demanding and terrifying the whole experience was.

'I really felt a fight or flight mechanism that I'd never experienced with a regular video game, not even a horror movie. This was personal, part of my brain was screaming at me: 'We're gonna die!'

'This zombie that is shuffling at me literally is gonna kill me and my body is screaming at me to do something about it. My cognitive senses are saying 'hey this is just a video game'.

'But my lizard brain is not interested in my logic, it was terrified on a fundamental level that I'd never experienced before. And I was like 'wow' well this is the future of video games.'

Early on in testing for the game - code-named 'Savage!' - Jake knew he was on to something.

'You would hear screaming and a guy would come running upstairs and tell us excitedly about this crazy moment that had happened and that is fucking awesome.

'My lizard brain was terrified on a fundamental level I've never experienced before'

'I love that that was your moment and it will never happen exactly the same way again. It was a live moment in your brain and you were completely freaking out.

'You'll remember that in a way that you would never remember a scene from a movie because it happened to you and you were involved and it's your story. I love that sooo much', ' he says.

There's a satisfying depth to the steps it takes to build a fire and acquire clothes in Song In The Smoke despite the head-spinning hunger and cold. Hiding out in your cave at night, tending to the fire and crafting tools is right at the heart of the game.

'I love camping. I love the simple joy of building a fire at night and watching it crackle and knowing that it brings safety and warmth and some heat and it's going to cook your meal, ' says Jake.

Although you have no other human companions in your world, you sometimes see hallucinations of them. These visions can be intense. Jake says that his own Shamanic experiences informed his decision to include them.

'I thought that it bled perfectly into this experience. Traditional medicine has been part of our lives forever. Humanity has lost its connection with nature because we have stopped using these psychoactive substances.



'I think spiritual development is a crucial for our species, of who we are.

'I wanted to celebrate this blurry line between the natural world, the dream world, the waking world as you get deeper and deeper into the game, ' says Jake.

CAMPING TRICKS!



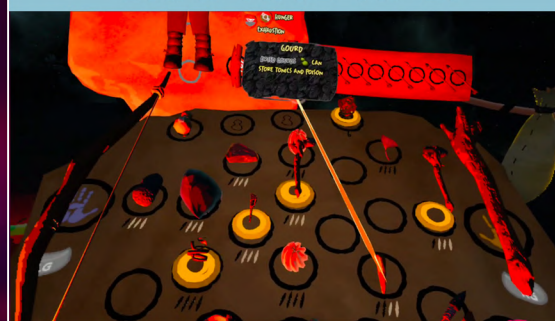
tanning rack 6 xl & 6 bindings

drying rack 3 xl, 3 m, 3 s & 6 bindings

storage sack 3 xl & 4 bindings

You can break xl wood to get one m and one s, plus an extra binding. Add binding to boost fire. You need about two full fires to get through one night.

CRAFTING TIPS!



billet bone + s rock

arrowhead billet + s rock

arrow s wood + arrowhead

knife arrowhead + bone

torch handle m wood + knife

torch handle + sparkling stone

bow xl wood + dried guts

club head billet + m rock

club wood + club head

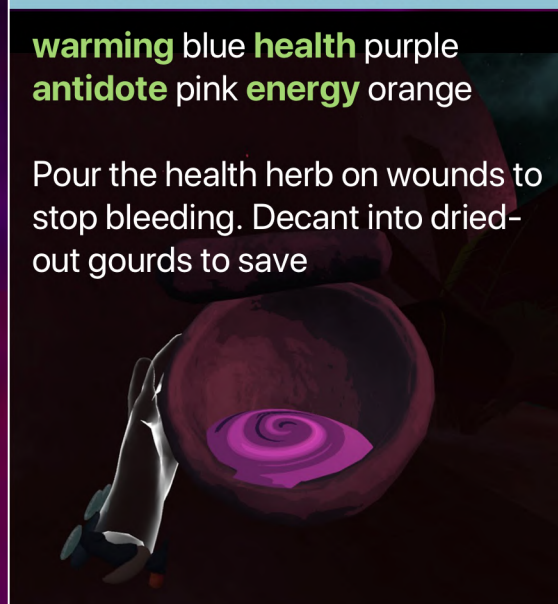
To assess the strength of any object, hover over it and look for the number of teeth (one to three). Swap leather bindings directly over the top of wooden bindings to add durability (club, torch, clothing etc)

HERBS & HEALTH!

warming blue **health** purple


antidote pink **energy** orange

Pour the health herb on wounds to stop bleeding. Decant into dried-out gourds to save



IN FOR THE KILL!

stalking crouch down (in seated mode press right thumbstick) to see tracks, smell, hear heartbeat, and see beast's heart to aim at

block use the club horizontally (grip with both hands) 

one-handed bow turn on in settings

When hunting, run *and* jump at the same time to move faster

There are eight levels and it takes anything between 30-50 hours to finish the game. But now you can go through it all over again with the difficulty ramped up in the new Savage mode.

'Basically I spent too much time playing the game and I got really good at it! It's like a heroin addiction, you need to keep upping the dose to stay high,' he laughs.

What was his motivation to spend so much time developing a single title?

'I love video games and I've played games for 25 years of every genre and I'm bored of the same shit. So I need to make games that are infinitely replayable, that are challenging and interesting.

'I like exploring strange worlds, I like things that can surprise even their creator'

'I'm into meaningful relationships with artificial entities, I like exploring strange worlds, and I like things that can surprise even the creators of it years later.

'I love the artistry of all these facets coming together, I love the symphony of the music, the intonation of the intention, the visual effects, the storytelling, the gameplay, the world building.

'To have something so awesome that you have built and that people continue to enjoy on a daily basis as a legacy to what you've done with your life, to me is the most worthwhile thing I could think of,' he says.

*** Song In The Smoke is out now \$30**

Listen to the podcast!

'Inside Jake's Lizard Brain & Other Primal Stuff'

Subscribe on Apple Podcasts or Spotify!



REVIEWS

ar passthrough games!



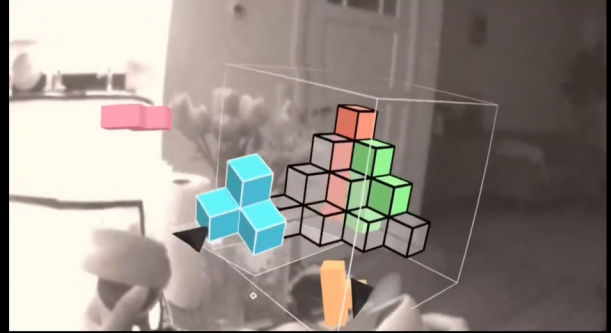
Crazy Kung Fu | \$10

The first to the punch with a pioneering release on App Lab is Crazy Kung Fu, allowing you to arrange digital assets in your room to build your very own dojo!

Pitted against a spinning Wing Chun wooden dummy, you must dodge flashing blades, block and punch as you train under the wise man's watchful gaze. Can you be quicker than the human eye?!

Solo developer Arnaud from London-based Field of Vision originally designed CKF for his own training as a practitioner of martial arts for 12 years.

There's even the option to have falling shrimps to munch on to test your reflexes! To get passthrough mode go to the game's menu, choose extras > MR.



Cubism | \$10

This has always been a meditative puzzle game with a gentle piano accompaniment adding to the zen-like tranquility. But now with passthrough it feels like playing with a little bit of magic in the air.

You can pet the dog or reach for a glass of water without removing the headset as you rearrange those multicoloured shapes for the hundredth time trying to get them to fit.

Belgian developer Thomas van Bouwel has created 90 puzzles with increasing difficulty levels. There's also a nifty hand tracking mode although it won't work in passthrough, which is available in beta. You have to manually enable the build on the store page.

Zombies In Your Home | \$1

The jump recoil as you spin around and see for the first time a zombie *in your living room* is worth the dollar price. Your room is darkened and all you are armed with is a flashlight which kills your foes after a five-second long beam.

REVIEWS

rock rhythm games!

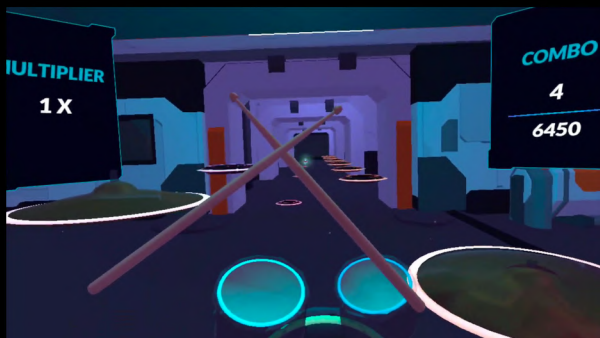


Unplugged: Air Guitar | \$25

A poster child for hand tracking technology, Unplugged takes the air guitar to its natural conclusion. If you've ever played Guitar Hero you'll know the sketch, lining up your fingers to the flying colour coordinated chords.

The sensation of holding an invisible guitar in your hands is incredible. Vibe with the audience doing the sign of the horns and you'll even get panties thrown at you - get it wrong and you'll drown in boos and tomatoes.

Satchel from Steel Panther will guide you on your journey from playing dives like Satan's Whiskers to being a rock God on stage at the Mercury Arena. There's 25 tracks from The Clash to Ozzy Osbourne. Now with passthrough!



Ragnarock | \$25

A quick wave of your huge hammers to your rivals left and right, an 'Ah-Hoooo!' with your fist-waving troops and off you go on a mental rhythm race in your Viking ship to some crazy Celtic tune.

The premise is simple, just hit the four drums in synch with the runes as your crew rows you through Scandinavian mythological scenery. The trick to going faster is all about getting your combo bonuses by hitting the shields to the sides.

There's solo mode but Ragnarock really comes alive in multiplayer, as up to five other boats line up in a chase of the longships. There's 32 head-banging tunes and it even supports custom songs. A classic party game. 'Ah-Hooooooooo!'

GrooVR | \$20

There's something about Brazilian death metal that will you up out of your virtual seat! GrooVR is arcade fun air drumming to 38 songs with an adjustable kit and the familiar flying patterns to play along to. From São Paulo-based Infinity Dreams.

REVIEWS

heart-pumping games! ❤️



Pistol Whip | \$30

Where else can you enter a pulsating arena taking out enemy assassins who are blazing ammo while dancing to the filthy electro of Black Tiger Sex Machine?!

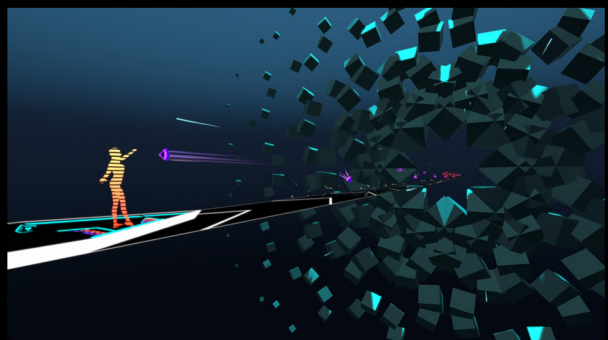
An absolute monster of a must-have VR title, Pistol Whip is all about shooting to the beat in a unique cinematic bullet hell.

With 23 full-on tracks in arcade mode presented like cool movie posters, it's a high-octane trip. Vancouver Island-based Cloudhead Games delivers a visual art style that's polished and class throughout and they're always adding new content.

The latest free dlc, Smoke & Thunder, is a five-track campaign in the Wild West plus a whole new customisable styles system offering endless combinations.



meet the dev!



Audio Trip | \$15

One of the purest and most ecstatic experiences in VR, Audio Trip is an exhilarating choreographed dance experience.

Fly through a surreal universe, moving your body in ways you never knew you could - heart racing, feet dancing and arms making glorious arcs. The sweat, the adrenaline, the euphoria!

Developed by [Ashley Cooper and Brady Wright](#), Audio Trip has 84 hand-crafted choreographies from beginner through to Cardio level. There's a great in-VR editor tool to make your own choreographies - follow the tutorial. Download custom ones at the unofficial Audio Trip Choreography Discord. Quality over quantity - and no money grab DLCs.

Gladius | \$15

'I'm Spartacus!' Comedy gore sword-fighting as you go from slave to Thunder God at the Colosseum in Rome. Slo-mo dismemberment! Cheering crowds! Lions! Tigers! Minotaurs! Sell heads in the market place! And still in Early Access!

FITNESS BY STEALTH!

MEET THE DEVS!
ASHLEY COOPER
& BRADY WRIGHT



FITNESS SPECIAL!

MEET THE DEVS!



ashley cooper & brady wright

Audio Trip is an exhilarating choreographed dance experience

'Take a deep breath and get ready for your trip'

It's the phrase that first greets you in the game, but it could just as well be the prelude to the life together of Ashley Cooper and Brady Wright.

Architect and professional dancer meets VR game developer. They fall in love, quit their 'cushy' jobs and risk it all. The result? One of the purest and most ecstatic experiences in VR, Audio Trip.

It's like walking into a rave and you are at the decks. Drop the tune and you are flying through a surreal universe, moving your body in ways you never knew you could, heart racing, feet dancing and arms making glorious arcs. The sweat, the adrenaline, the euphoria ...

Confirmed festival lovers, it's easy to understand the couple's inspirations.

Ashley and Brady met in Austin, Texas. But right now they are as far away from their roots as you could imagine. The American couple have ended up in the most unlikely setting - a small coastal town on the Albanian Riviera.

Albania?! 'We were on our way to a Game Dev house in Sweden but the border shut because of the coronavirus' explains Brady, 'so we had to find a place to stay.'

'But it feels like paradise! The culture of Albania is so interesting, it's got one of the oldest languages in Europe and people are so friendly. Jackpot!' laughs the effervescent Ashley.



Ashley Cooper plays Audio Trip

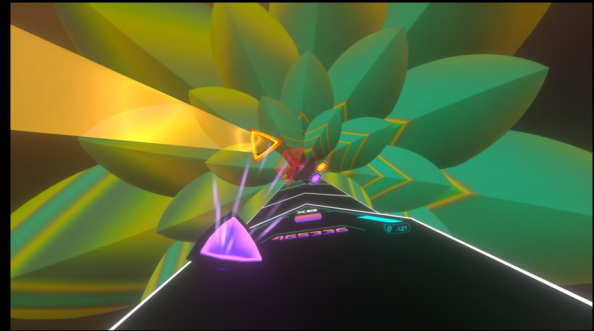


Once upon a time back in Texas, Brady was listening to an electro track, Red by Rafaël Frost. 'I felt like I wanted to get up and run, ' he says. He told Ashley.

'So I said, the first thing I wanna do is get up and dance! Wait, what if we could do something that's shows people the joy of how I feel when I dance? So Brady videoed me doing improv. And I thought 'how do we reverse engineer this using just our head and our hands in VR?'

The seed for Audio Trip was planted and together they set up Kinemotik Studios. For Ashley it was an emotional moment.

'I had been an architect by day and a dancer by night. I started dancing when I was three, competitively when I was seven. I did jazz, tap and ballet. You name it, I danced it!



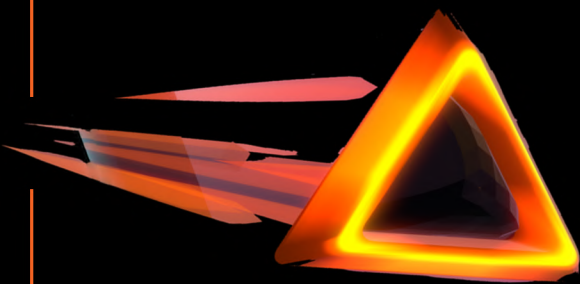
'They said I'd never dance again and I'd never walk the same way'

'And then I had three different knee surgeries because my knees started falling apart. And they said I'd never dance again and I'd never walk the same way, ' she remembers.

Demoralised, Ashley sought out therapy and yoga 'to rebalance my body.' She bounced back and took up belly dancing and flash-mobbing professionally.

Now she could see how to share her passion. They got to work. For Brady, who had lost 100 pounds 'the old fashioned way' years earlier, it was a no-brainer it terms of how you could have fun and keep fit.

'Finally a workout you'll enjoy doing! It's the Holy Grail. I spent so much time on treadmills and it's so boring! You are aware the whole time that you are uncomfortable and you are pushing yourself. But in VR you don't feel like that at all. Generations have been looking for this and millions of products have made promises, ' he muses.

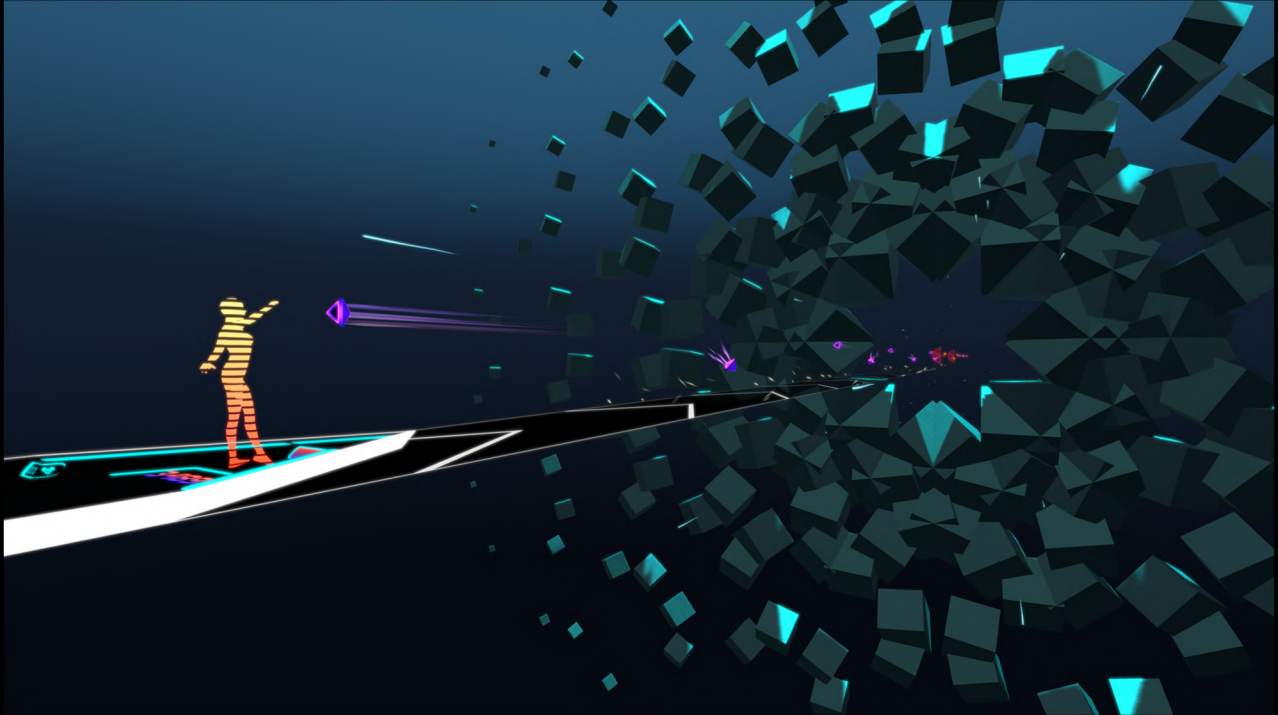


MAKING A SONG & DANCE!

To import tunes and make your own choreographies, follow the tutorial [here](#)! Download custom ones at the unofficial Audio Trip Choreography Discord [here](#) and follow instructions. Copy to Android > data > com. KinemotikStudios.AudioTripQuest > files > Songs.

FITNESS SPECIAL!

MEET THE DEVS!



'Feel what I feel, squeeze that joy into another body!'

'Some people wanted us to put an inappropriate emphasis on the fitness angle. But we were very adamant that we wanted you to love Audio Trip first and not feel that you are being 'forced to eat your vegetables!' says Brady.

Ashley designs all the moves as you catch gems, ride ribbons, smash drums and dodge barriers. You move exactly as she intended.

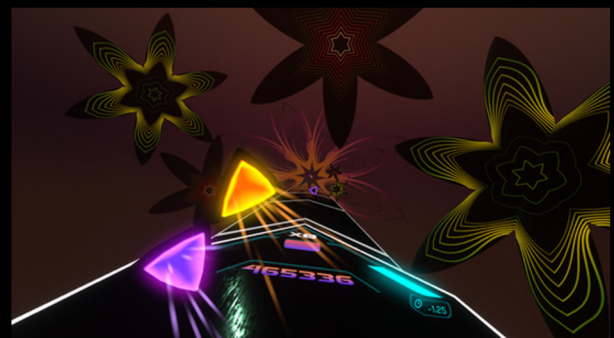
'Brady is the first play tester of my choreographies and doesn't think he can dance, so if it really makes him move I'm hitting the nail on the head,' she laughs.

'You just feel better when you move and when you are healthy. I want others to feel what I feel, to squeeze that joy into another body!'

'We had multiple reviews saying it was too difficult, you have to reach too far, but I didn't want to make it too easy. Sometimes it just takes practice and experience and time. It's like climbing a mountain, and then it's worth it when you get to the top,' she says.

This year they released the Cardio update, cranking it up a notch.

'It's funny because people had the opposite reaction, they were fine with it. There are huge, huge movements but we'd telegraphed it with the name.'



RAVE RUNNING!

Audio Trip has 84 hand-crafted choreographies from beginner, normal and expert through to the Cardio level! You can go on a full or short trip over 21 tracks.

Addicted To A Memory - Zedd
Anemone - Naden
Bangarang - Skrillex
Can't take it - Hot Rod Elegants
Dance Monkey - Tonnes and I
Drift - Rafaël Frost
Freedom - The Originals
Golden Pineapple - Tolan
Jurassic Snack Pack - Prototyperaptor
Just Dance - Lady Gaga
Keep My Cool - Benji Heard
Krishna - Dropgun
Mandala - Blastoyz
Red - Rafaël Frost
Satisfaction - Benny Benassi
Show me - Tiësto
Sofi Needs a Ladder - Deadmau5
X-type - I Kill Pxls
Gangnam Style - PSY
Makamba - Trobi & Vorwerk
SIDthesize - InSine

There's an incredible in-VR editor tool to make your very own choreographies and lots of great customisation tweaks.

Audio Trip is US\$20



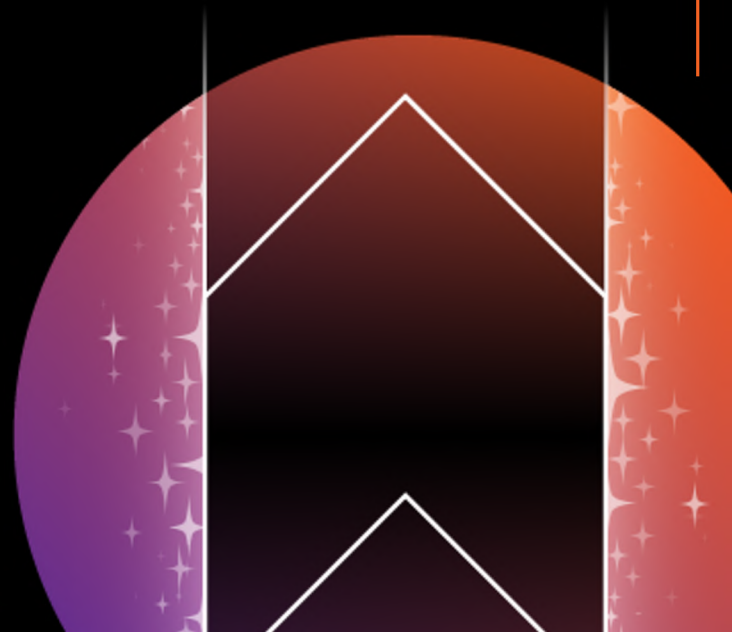
'I danced ballet a lot in my youth and this brings that feeling back. I'm nearing 70 years old'

I read to Ashley one of the many reviews of Audio Trip written by older fans: 'I danced ballet a lot in my youth and this brings that feeling back. I am nearing 70 years old and my daily routine now includes working through all the tracks.' How does she feel when she hears that?

'My heart explodes out of my body when I hear things like that. It means so much to me especially because I was told that I would never dance again. I'm already starting to cry!

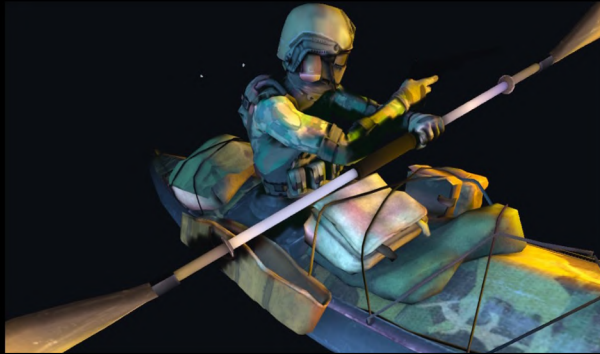
'It's completely heart-warming. I have a mantra that I want to reach my potential by creating things in the world that help others reach their potential', she says. 'Give people the confidence that they didn't think they had but they do.'

'I'm really grateful that Brady showed me VR and invited me to jump off a cliff with him', she beams. The couple are now married. It's been a heck of a trip ❤️



REVIEWS

crazy motion games!



Phantom: Covert Ops | \$30

In December 1942 ten British marines embarked on what has become known as the most courageous raid of WWII. They kayaked 100 miles at night to plant limpet mines on enemy German ships moored in France. Known as the Cockleshell Heroes, only two men lived to tell the tale.

UK-based nDreams cite the raid as the inspiration behind the phenomenal Phantom: Covert Ops. Stealth kayaking is certainly a unique VR experience – seven levels sneaking around in the pitch black infiltrating an old Cold War naval base.

There's a reach-over-your-shoulder machine gun amongst your arsenal but this is no shoot-'em-up – covert is key. A tense drama from inspiring origins with outstanding atmospherics.



Superhot | \$25

With over a million copies sold over five years, Superhot is a true VR classic. It's the matrix made real – time only moves when you move.

Featuring minimalist white environments, red polygonal people made of glass and unique gameplay, you are outnumbered and outgunned.

In July the developers decided to remove suicide and self-harm scenes, saying 'we regret it took us so long.'

It has caused controversy but the problem was the 10 age rating and no parental warning. That was indefensible.

Whether they took the right course of action is the only thing up for debate.

Daedalus | US\$5

A real gem from the Spanish indie VR studio Vertical Robot – the makers of Red Matter – Daedalus delivers a wonderful sensation of flying. Glide and ride currents of multicoloured air to solve oneiric and surreal puzzles.

REVIEWS

parkour games!

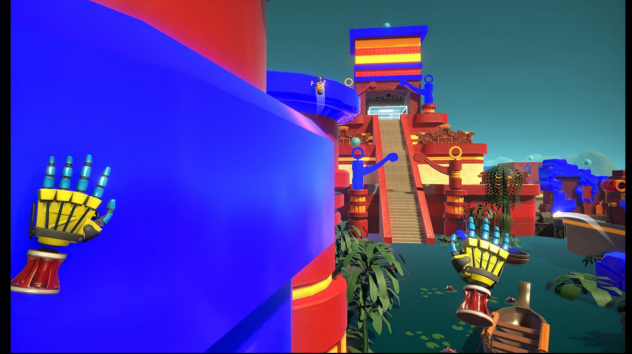


Stride | \$15

Parkour is really about the ultimate fantasy getaway escape route and Stride delivers to an edgy deep bass soundtrack as you leap across the rooftops.

Executing a wall run while gunning mid-air in slow motion feels good! This is parkour with pistols, climbing and cat leaps, swinging from hooks and flying down zip lines. All while trying not to get killed. It's a physical game - you swing your arms to run, throw them up to jump, push down to vault and crouch to slide.

In endless mode you get chased by an advancing red line as a minimalist world disintegrates behind you. Time attack is for speed runs, while arena mode has the proper cityscape. There's no multiplayer or story - yet. A free update is promised.



To The Top | \$20

Gaze and leap, fly and climb. Use monkey bars, grappling hooks, shuttles - the crazy movement mechanics are a joy to behold in this older experimental title from Electric Hat Games.

To The Top is a platformer with an incredible amount of freedom of movement. Spring through 35 innovative levels in solo or multiplayer to a great soundtrack culled from local artists from Austin, Texas. Once you master the controls you can 'pounce through the levels like a robotic cheetah.'

Bounce across trucks moving through the desert, sail through a construction site, climb a giant moving robot - there's a fluid energy to the game design, and each level has its own unique flavour.

Gorilla Tag | free

Indie smash hit Gorilla Tag is a hilarious multiplayer with unique movement to run, climb and monkey around! It's playground tag - get your arms burning as you jump through a lo-fi jungle or canyon. And now you can mute the kids!

REVIEWS

horror games!

meet the dev!



Crashland | \$20

Aaaaaarrrrrrrgggggghhhh! That's the sound of both terror and frustration as you perish once more from another brutal onslaught of giant hellworms, vicious waves of squealing pig burrowers and a relentless blitz of bloodsucking ticks.

Crashland is played in frenetic intense bursts on alien worlds until some unseen Scotty beams you up to safety. The relentless nightmare continues as you learn teleporting tactics, unlock perks and figure out how the hell to survive. Fire into the sky to get turret support and level up to hellfire and the funky boomshot!

It's far from easy but the relish is in the challenge. There's 24 finely engineered levels. From the evil genius of Welsh developer [Llyr ap Cenydd](#).



Lies Beneath | \$30

Far from being yet another zombie slasher, Lies Beneath is a graphic novel thriller wearing suspense and surrealism in its finest comic book garb.

It begins with the aftermath of a car crash and quickens the pace with a chase before you start to pick up some weapons to begin to defend yourself against the mysterious unknown in Slumber, Alaska.

Use your Zippo lighter to burn glowing voodoo dolls, pinpoint where to shoot and guide you through the darkness.

The story reveals itself through text bubbles along the 20 creepy chapters. More atmospheric than jumpy, but with enough horror to recoil in this cel-shaded yarn. From Seattle-based dev Drifter VR.

Cosmodread | \$15

Set on a dying spacecraft, Cosmodread is a moody maze of strategy, stealth and cunning with surprises behind every door. Ethereal and terrifying, it's another hit from the solo Spanish developer Sergio Hidalgo, creator of the classic Dreadhalls.

**MEET THE DEV!
CRASHLAND!**



**SALVATION IN
60 SECONDS!**

**YOU HAVE CRASH-LANDED ON
A HOSTILE ALIEN PLANET.
CAN YOU SURVIVE?**

LLŶR AP CENYDD!

MEET THE DEV!
CRASHLAND!

Welsh university lecturer developed the hit horror title in his spare time

Aaaaaarrrrrrrgggggghhhh! That's the sound of both terror and frustration as you perish once more from another brutal onslaught of giant hellworms, a vicious wave of squealing pig burrowers and a blitz of bloodsucking ticks.

This is Crashland. And it's an absolute nightmare for those with fears of creepy crawlies. Welsh developer Llŷr ap Cenydd blames his childhood.

'When I was a kid there was a school project where we had to take a spider in and overnight it just made a horrible web in the jam jar. It became a sinister thing so that's where it started, ' he says.

The game is played in frenetic intense bursts on alien worlds until some unseen Scotty beams you up to safety.

You have to learn teleporting tactics, unlock perks and figure out how the hell to survive while facing down more than fifty different gruesome creatures.

But it's the eight-legged variety and especially the giant ones, 'that make people scream for the first time.'

'you get that tingling sense of arachnophobia'

'I knew I was getting somewhere with the animations when it really creeped *me* out. You get that tingling subconscious sense of arachnophobia.

'You have a captive audience in VR and there is some trust that is put in you. It's quite intense and you can scare someone quite easily.'





ELECTRODON!



BURROWER!



BUZZERS & LONGLEGS!



TERRORBIRD!



BANSHEES!



KING HELLWORM & CRAB!

'One of the early creatures I made was a spider running across the ground. But there was something missing – it was the silhouette. I wanted to play on that fear too, so I eventually made some flying spiders I called banshees which were silhouetted against the sky.

'The banshees scream, too. The inspiration for that came from Dunkirk, the Christopher Nolan film. The dive bombers that the Nazis used made this noise as they were coming down. It's basically psychological warfare, it's like a siren with a propellor attached.

'So I've tried all the tricks in the book with the subconscious stuff,' he says.

What dark corners did Llŷr look in to for inspiration to create his horrific beasts?

'Crashland took seven to eight years to develop so I guess it is all over the place. Sometimes it's just classic science fiction, like the movie monsters. It could be the Velociraptor from Jurassic Park or even Ray Harryhausen and his scorpions from Clash of the Titans. Sometimes it comes from Earth's prehistory.

'I'd search for weird creatures that used to live in the sea in the pre-Cambrian period, prehistoric flightless birds. They come from everywhere, sometimes it might just be an idea I had on the bus'.

'I love them all, they are my little children!'

He says that the Hellworm is his favourite, although he jokes: 'I love them all, they are my little children!'

'The Hellworm you don't see in other games, I think that's a unique creature. It's above ground, multistory, intimidating and kind of comes out of nowhere. It was a massive amount of work on the procedural animation system for that.'

Llŷr's journey to the release of Crashland is remarkable. The procedural animation that he talks about was the subject of his Phd at Bangor University, where he now lectures at the school of Computer Science and Electronic Engineering.

He developed the game on his own in his spare time.

'I guess a lot of games are made with design documents and an art department and people whose role it is to come up with creatures. I don't have that luxury, I'm one person working in my spare time so its a bit more organic and haphazard how these things come about.

'There's a freedom to have a vision and see where it goes and sometimes completely change direction,' he says.

His first title, a tech demo called Ocean Rift, eventually became a launch title for the Gear VR and remains popular today.

It's an underwater safari park with cutesy dolphins - almost the polar opposite of Crashland. But the techniques are the same.

'Procedural animation uses AI or algorithms instead of having an

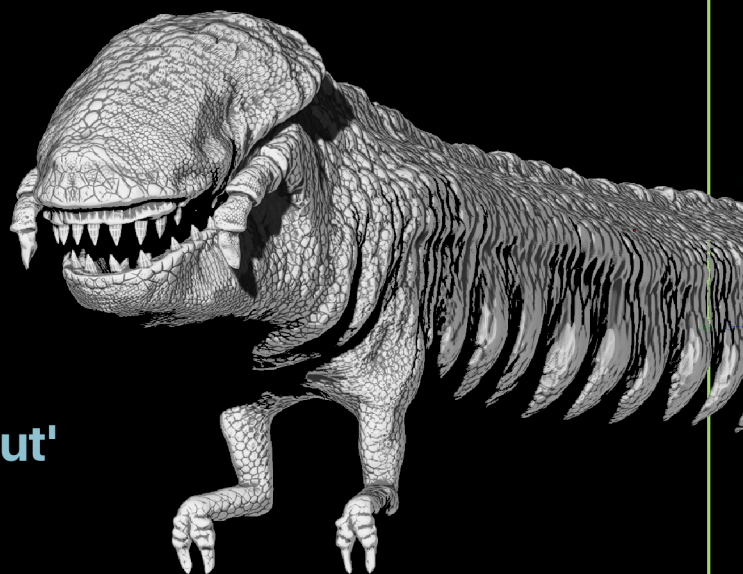
'Procedural animation is breaking through the *uncanny valley* so it doesn't creep you out'

animation play on a loop. It might be as simple as the placement of feet on the ground, and at it's most extreme you are animating a creature as though it were a virtual robot, essentially. Creatures in Crashland behave differently every time.

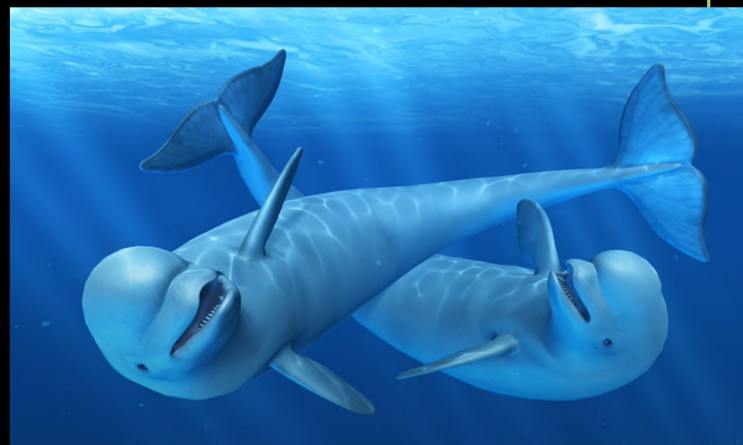
'It's often in the small micro details like blinking, breathing, or making a character look at you. Animation is getting close to photorealistic. It's breaking through what is known as the *uncanny valley* where it doesn't creep you out, basically. A virtual human would be the Holy Grail. It's come a long way but there's a long way to go.'



An early version of Crashland circa 2014



Above: Early concept model for Crashland's Sand Dragon
Below: Beluga Whales from Ocean Rift



PERKS



SELECT 5 PERKS
CURRENT LEVEL : 30

But as anyone who works in the visual arts knows, sound design can be just as crucial an element. With so many alien bugs to voice, Liÿr ended up using some pretty bizarre sources.

'When you have fifty creatures you'd be surprised how quickly you run out of animal sounds to mix together.

'Towards the end I was basically making my own noises and speeding them or slowing them down and getting my wife to do the same. Just brushing my teeth and gargling became the death throes of a shock slug!

'In game development 'barking' is when a creature makes a noise every now and again to let you know it's there. It's really important in a game where the screen can go black so quickly.

'For the prehistoric terror birds, it's actually the mating call of a Galapagos tortoise, like the raptors in Jurassic Park.

'Squealing pigs feature a lot, you can get a lot of mileage out of them,' he jokes.

'when you crank up the difficulty level certain perks become essential'



Crashland has gained a notoriety for being too hard. After the launch, Liÿr created an easy mode after some criticism that the difficulty level was too high. Is it the toughest game in VR?

'I didn't set out to make a difficult game, I did not consider that at all when I launched it.

'When you crank up the difficulty level it becomes a wholly different game because techniques that used to work don't work anymore. Certain perks become essential. There's longevity there if you want it.'

BEST WEAPONS!

Hellfire 'It comes in the game at quite a good time when you are low and at a weak point and then suddenly you can just burn through things'.

Rocket launcher 'This was the first weapon I made for the tech demo. You can detonate the rockets in the air. It's one of those cathartic turn-the-table ones'.

Burst fire 'It's based on the pistol in RoboCop. It's just three round bursts. Powerful, short range. Just chews through things'.

TOP PERKS!

Turret 'There are missions in the dark or others when you just know something horrible is going to start appearing. It's like a friend you'll have for thirty seconds to ease the pain and the stress'.

Reaper 'You get a free powerful shot instantly and you get one teleport back which can be huge just to get out of trouble'.

Teleport punch 'It's a risk reward thing where you can just slam into stuff and zip around the battlefield. Good for small enemies'.

'I followed the concept of 30 seconds of fun, that every 30 seconds something new happens. Every mission has one or two new aliens in it, and a new weapon periodically drops every few missions.

'There is always something new over the horizon - a new alien that is horrifying in its own new way - so that's how I've dealt with the difficulty being as it is.'

I tell him I must have died fifty times trying to get past mission 11 of 24, Mine Sweeper.

'These are very sadistic design decisions made on purpose! I cursed myself a lot when I was play testing. You rely on certain tools in the game and all of a sudden those tools are taken away. It's a bump in the road, but you'll get past it,' he laughs.

'I just want to give people experiences they can't get anywhere else'

'I'm just trying to entertain people in VR, I try to push a genre forward. The powerful thing about VR is ... if you are a film director or an author you are just hoping that you have got the person's attention - they might be daydreaming or on the phone.

'But in VR you have got people's full attention, you are taking control of everything they have got. I want to give someone an experience that they can't get anywhere else whether that's swimming with dolphins or fighting with giant spiders'.

Crashland is available now priced \$20.

REVIEWS

virtual tourism apps!



Wander | \$10

It might only be Google Street View in VR but being able to go to any address on the planet in an instant never gets old.

The street where you were born? The city your friend has moved to? The neighbourhood near the Air BnB you'll be staying in? Just type in the address and immerse yourself in the surroundings.

This is photo, not video, of course but it's one of the best multiplayer hang out apps, touring the world with friends and family.

Play geo guessing as you land in a random spot, or try out the flawed but fun voice recognition system. You can bookmark your favourites and even 'time travel' to older registers of the same locations. Hours of engrossing fun.



Brink Traveler | \$10

This is hi-res photogrammetry but with special sauce - flying birds, grass bending in the breeze, flowing waterfalls.

Crucially you can move around a few feet in any direction and there's binaural soundscapes to add to the illusion.

There are 18 spots across 12 locations which feels like double when you switch to night mode. You've got a notebook in your left hand and a compass in your right for bite-sized information panels and you can even take photos.

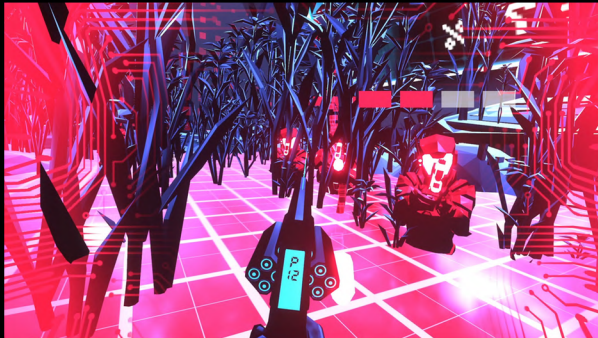
Highlights include Haifoss in Iceland and the Horseshoe Bend with more locations promised. You can turn off narration and just commune with nature. All in all, a beautifully executed experience.

Space Walk VR Experience | \$7

How else could you go Earth-gazing? This is goosebump material as you open the doors of the space shuttle and venture out. You can view the Earth from any angle and at any time of day while you float in space. Epic.

REVIEWS

back to the 80s games!



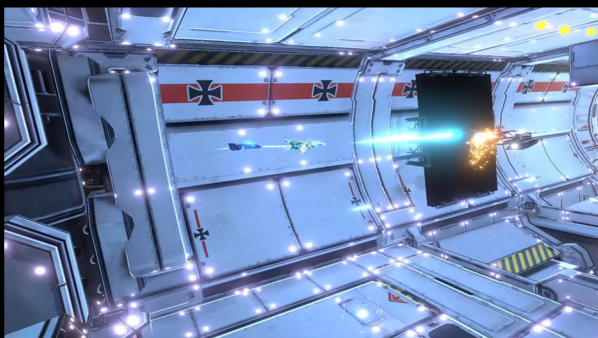
ARK-ADE | **free demo** | \$20

Are you ready, human? With Pistol Whip vibes, ARK-ADE is a beautifully polished FPS - a love song to 80s arcade games.

Glance to the right on any of the seven blue and purple neon levels and you'll see that you are inside the actual cabinet. Those cool touches set ARK-ADE apart.

It's got a clever dynamic of having 'ARK', a spinning cube whose health is linked to yours, as you blast through Tron-like enemies to an ear-worm soundtrack.

First-time devs Castello Inc refined the game along with the community and it shows in the ultra smooth and satisfying end product. Make sure to turn on the 'Italian taste' option - 'Bellissimo!' 'Bravo!' 'Mamma mia!' Eccellente.



Galaxy Force VR | **free**

With a cool and all-to-rare 'sky view' option for playing while horizontal, Galaxy Forces VR is a wet dream for old skool arcaders.

Lie back and think of the original Lunar Landers and Gravity Forces (hence the name), while you nudge, nudge, nudge the thrusters of that little red triangular spaceship to pause. Tink!

Each level - there are 55 official ones and a bunch of user-created ones - takes place inside a 2D space cave.

Either go all-out doing speed laps on time attack or accept missions to transport fuel cargo. The slightest touch more than a scrape of the cave walls and it's boom! Leaderboard scores are frightening.

2076 Multiverse | **free demo**

Barcelona-based Ivanovich Games have a habit of VRifying side-scrolling shooters and 2076 promises to be their best yet. There are some insane perspective shifts, from pancake to X-wing starfighter style immersion and back again.

REVIEWS

grappling games!

meet the dev!



Yupitergrad | \$15

'Be careful, brave komrade Kosmonaut!' Being a Slavic spiderman you don't fire silk but instead have some very Soviet-era red plungers. At least they seem reliable, and the suction cups give a satisfying 'plop' every time they land.

This is your only form of locomotion and you blast off to the 'top class space station' Yupitergrad to a stirring patriotic anthem. There are 55 fun cartoon-style levels to swing through, 40 more on time attack and a new 'Gymnasion' play space.

It's all laced with delicious deadpan one-liners: 'Our crew gathers here to learn what they think' and the classic 'Breathe economically, never for pleasure'. Unique brilliance from Polish studio Gamedust, headed up by [Jakub Matuszczak](#).



Resist | \$20

Hear the whistling of the wind in your ears as you speed-grapple at night in the rain between the skyscrapers of the city of Concord, leading the resistance against Astra Robotics - tagline 'Keeping Humanity Safe From Itself'.

There's euphoric high once you get the hang of swinging, leaping and generally jet-packing around. Zoom down to attack giant drones and indulge in a bit of billboard-hacking as spy Sam Finch while comms chatter in your ear.

The flying can be a little unsettling at first but there's a huge range of comfort settings (try detached camera mode) from Australia's The Binary Mill studio. At street level the faceless populace remain blissfully unaware of their superhero.

Windlands | \$15

A port of a classic VR title, Windlands is one of the original swing, jump and run adventure games. Don't expect top level graphics from 2014, but the locomotion still feels great. Windlands 2, which adds archery combat and co-op, is due out.

MEET THE DEV!

JAKUB MATUSZCZAK



Yupitergrad

MEET THE DEV!

jakub matuszczak

'Yupitergrad is a game about a swinging cosmonaut in a tracksuit'

It's the delicious deadpan one-liners that first introduce you to Yupitergrad's peculiarly Slavic flavour.

'Our crew gathers here to learn what they think,' announces AISha (Olga Shepel), your off-camera cheerleader, advising you to 'breathe economically, never for pleasure'.

Being a Slavic spiderman you don't fire silk but instead have some very Soviet-era red plungers. At least they seem reliable, and the suction cups give a satisfying 'plop' every time they land.

This is your only form of locomotion and you blast off to the 'top class space station' Yupitergrad to a stirring patriotic anthem and with the words of General Varnikov (Evgeniy Golov) in your ears.

It's all the work of a fun-looking gang of 20 employees at Gamedust, a studio based in Poznan, Poland.

'Swing, brave komrade kosmonaut, swing!'

Head honcho Jakub Matuszczak, who describes it as 'a game about swinging cosmonaut wearing a tracksuit', says the inspiration for the humour comes from the self-styled 'Slav King', youtuber Boris from The Life Of Boris and hardbass music subcultures that 'exaggerate the stereotypes about people from Eastern Europe and its history by Western societies.'

But let's get back to the stand-out feature of Yupitergrad - the swinging!



What you might imagine at first would be a guaranteed queasy fest turns out to be a brilliantly executed and super fun way to move around.

Gamedust talk about a passion for new game mechanics.

'The whole idea emerged during an internal game jam when we were looking for innovative VR mechanics. One of them was the ability to grab and play the objects with grappling hooks which gave us a lot of fun during testing', says Jakub.

'However - after some iterations, the team realised that it's much more fun to pull yourself to the objects and that's how Yupitergrad was born.'

'the killer soundtrack goes from synthwave to retropunk to hardbass'

There are 55 fun cartoon-style levels to swing through and 40 more on Time Attack mode - half of which have been added for free since the game's launch.

'With such a dynamic game we needed to make some concessions regarding the art style.

SNEAKI PEAKI DEMO!

The **free** Yupitergrad demo, called Sneaki Peak!, is downloadable from Sidequest [here](#). There are all the training levels from the main mission so you can test the controls and comfort settings, plus three Time Attack levels to race through and climb the local leaderboards!



'We wanted the game to be visually attractive, hence cel-shading which is visually appealing, but easier for optimisation,' says Jakub.

Not to mention that all this takes place in a retro futuristic world against the backdrop of a killer soundtrack, from synthwave to retropunk to hardbass.

Gamedust have even released an album featuring 15 tracks by Piotr Surmacz, with Pink Floyd-inspired artwork (as featured on the cover of this guide).

'Piotr is responsible not only for the music, but for the whole story and most of the dialogues as well,' explains Jakub.

'We had a lot of discussions about the tone of the story and the music, so we worked very closely. Even now with the updates when we add new music. He is like a member of our team to us.'

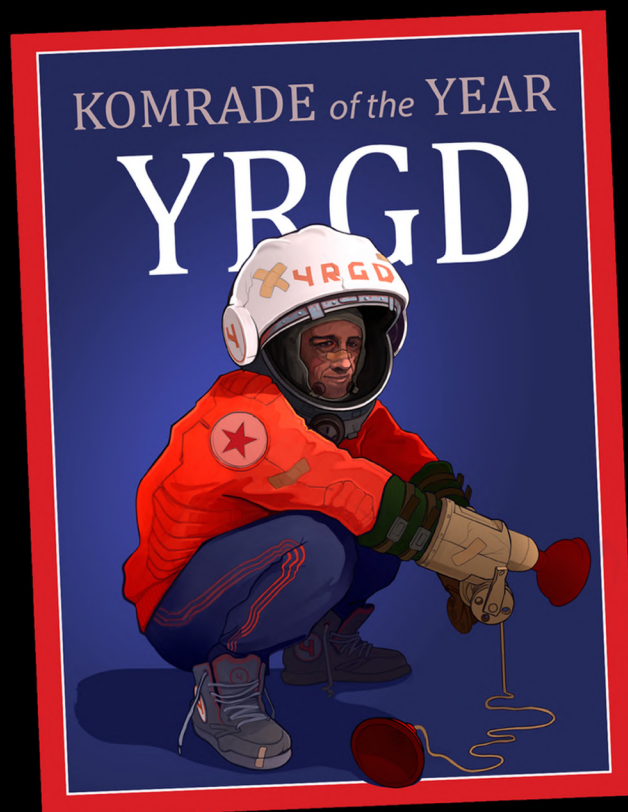
When I complain that some of the Time Attack levels - I'm looking at you level 9! - are fiendishly difficult, Jakub responds that 'we never aimed for a 'walk in the park' type of game, especially in the additional mode. We had a lot of players who are looking for increased challenge.

'We also have one person - nicknamed Awesomecar - whose main aim is to maintain the world records in all of our Time Attack levels. His dedication to the game is the best praise for us.'

Yupitergrad has been a success for the studio and although Jakub won't reveal sales figures, 'I need to admit it is a satisfying result that keeps on growing.

'As a studio we just want to deliver great and fun games captivating the players on this new and fascinating medium. VR is expanding faster than ever and it's great to be part of this innovation.'

Yupitergrad Sneaki Peak demo (see box) is **free**. The full game is US\$15.



'we just want to deliver fun games that captivate players on this new and fascinating medium'



REVIEWS

adventure puzzle games!



Red Matter | \$25

Often cited as the best-looking game on the Quest 2, Red Matter is a true heavyweight title, a spectacular sci-fi adventure set in an alternate future Cold War.

As Agent Epsilon, you are an astronaut isolated on the abandoned Volgravian base on one of Saturn's moons, surrounded by propaganda in a pseudo-Soviet script.

In this game of psychological warfare chess, what's real and what is surreal keeps you guessing all the way to the end. What happened here? And who is watching your every move?

Sheer brilliance from the Spanish indie studio Vertical Robot.



Moss | \$30

'Your time has come at last, dear Reader' says the narrator as you open an dusty book in a candle-lit Cathedral. Here begins your bond with Quill, a young mouse, whose excited squeaks and cute high-fives will melt your heart.

She uses pantomimes and even sign language to communicate as you navigate your hero through temples and castles to save her imprisoned uncle. Sometimes you just want to stop and gawp at the beautiful scenery, so drop-dead gorgeous are the dioramas.

Together you'll fight giant blood-red stag beetles, things that go 'boom' and the final 'unconquerable nightmare' - a fire-breathing serpent. A truly magical journey from Seattle-based Polyarc.

Shadow Point | \$20

A wonderful adventure with a Scottish lilt set on a mountaintop observatory in Inverness. Travel through portals to reveal a fantasy kingdom and solve puzzles of light and shadow to unlock the mystery of Lorna. Narrated by Sir Patrick Stewart!

REVIEWS

more adventure puzzle games!



Down The Rabbit Hole | \$20

The unique and astonishing perspectives of the theatrical dioramas put Down The Rabbit Hole in a league of its own. Hold the writhing roots and you can twist the scenery around at your will, even pulling it to your eye like a giant inspecting a tiny fantastical world.

But it's not the only jaw-dropping aspect of Cortopia studio's tale, as you guide 'Elise' around a prequel to the Adventures in Wonderland with her side-kick, the four-and-a-half of spades. It's the intense attention to detail, like the words on a pot in the kitchen or the smoke billowing from The Caterpillar's opium pipe.

Levels like the mirrored Winter Lake are a showcase of puzzling ingenuity. You just never want the magic to end.



The Room VR | \$30

It's 1908 at Bloomsbury Police Station in London and an archeologist is missing. As a detective you have to solve the mystery by collecting the four artifacts in the hidden realm of The Null.

Without music, 'A Dark Matter' bets its chips on brooding atmospherics, leaving you alone in your thoughts. Your only guide is through cryptic letters from 'The Carpenter' and hints if you need them.

Use the Eyepiece to gaze into a ghostly green parallel universe as you collect the clues of the visually stunning intricate puzzles from inside gnarly trees or Egyptian tombs. If that's not enough, red crystals reveal the secret wonders of a macro universe within, in this spellbinding adventure from Fireproof Games.

Myst | \$30

A reworking of Cyan's classic title from 1993, Myst still demands a high level of dedication to solve the mysteries of the island. There's puzzle randomisation for those who have played the original. Challenging, beautiful and rewarding.

REVIEWS

even more adventure puzzles!



A Fisherman's Tale | \$15

One of those only-in-VR experiences, this title is a box of tricks that plays on the macro and micro scale as you embody a puppet seafarer on the choppy waters of a sea of confusion.

Best played in roomscale, it's an inspired piece of genius, with your lighthouse rendered as an exact replica miniature model of your surroundings and the clever interplay between the two. You can pick almost anything up and play around as you explore the parallel universes.

There's very French flavour to Vertigo Games' unique puzzler, and its comic narrative delivers. As the 'biggest fish my papa ever caught' says to you: 'If you want to go upstairs, my little *amuse bouche*, you'll have to feed me first!'



Star Wars: Tales from the Galaxy's Edge | \$35 including DLC

The puzzles are child's play but the optics are epic in this excellent long-haul adventure, now a complete package with the addition of part two, the Last Call.

Six-eyed Cantina barkeep Seezelslak is the star turn but he's backed up by a stellar cast of favourites as you play a droid repair technician roaming around the howling winds of the Batuu Wilds.

Everything sparkles from the voice acting to the jaw-dropping alien vistas. Along with the shooter-based central missions are some serious sidequests, like taking a bounty playing droid assassin IG-88 or dressing up as a stormtrooper. It's fun, it's a thrill and it all comes down to the bottom line - it's Star Wars and you're in it.

Vault of Stars | \$10

With one of the best and most original superman-style flying mechanics, this eco fantasy indie title shines bright. Go from a bird's eye view to morphing into a giant golem to solve the puzzles and save the world.

REVIEWS

impossible spaces games!

meet the dev!



TraVRsal | free

Teleportation? Smooth locomotion? Snap turns? Warp? Gaze? Nope, says developer **Impossible Robert**, why not just use your legs? Walking around in VR is so natural and liberating you wonder why more games are not made like this.

You might be going round and round in circles on the carpet but in VR you'll be stepping over snake pits and avoiding spike traps in ancient Egypt!

The Pyramid is just one of more than half a dozen experiences that await you on the holodeck, and you can now play with friends in multiplayer.

Wander around your curated art gallery together - you can upload your own images and customise your installation.

There are even user-generated 'worlds' like The Tower, made by people with zero game-building experience thanks to the developer's world building tools.

It's difficult not to see TraVRsal as paving the way for whole new genre of VR experiences. A ground-breaking pioneer.

meet the dev!



Tea for God | free

Another candidate for the best natural walking in VR, Tea For God adds the hand tracking factor to strip away another layer of immersion breaking.

It doesn't matter how much space you have, the game will expand and contract to fit using procedurally generated levels.

Known as non-Euclidean geometry it's a magic trick the remembers Doctor Who's TARDIS - bigger on the inside than it is on the outside. It even utilises an elevator mechanic to expand vertically.

The game itself is an atmospheric maze shooter set in some kind of interstellar universe. Just the opening sequence is jaw-dropping. There's a checkpoint-based arcade mode and roguelite for 'tinkerers and explorers'.

You'll come across a variety of quirky robots and surreal environments.

'There's a lot going on that the players don't see. It's actually a bit of smoke and mirrors' says solo developer Void Room, aka **Jarek Ciupiński**.

The background image is a virtual reality scene. It shows a corner of a room with a textured, grey stone wall. A vine with large, green, heart-shaped leaves is climbing up the left side of the wall. In the lower right foreground, there is a large, rectangular stone block or pedestal. On top of this block is a circular hole. A person's hand, wearing a black VR controller, is visible in the bottom right corner, reaching towards the stone block. The lighting is dim and atmospheric, typical of a VR environment.

MEET THE DEVS!

**IMPOSSIBLE
SPACES!**

**NATURAL
WALKING in VR!**

MEET THE DEVS! IMPOSSIBLE SPACES

JUST KEEP WALKING ...

Innovations in making the most of your available playspace!

Teleportation? Smooth locomotion? Snap turns? Warp? Gaze? There have been many attempts at solving the riddle of how to move around in VR but it might just come down to the simplest method of all - why not just use your own legs?!

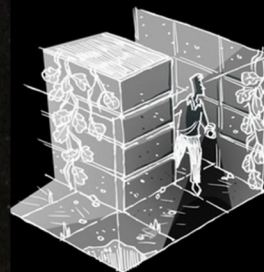
Walking around in VR is so natural and liberating you'll wonder why more games aren't made like this.



WHAT IS NON-EUCLIDEAN GEOMETRY?

Euclid was a Greek born in 4th century. He worked and died in Alexandria, Egypt and is known as the father of geometry. His theories held until the 19th century, when new non-logical mathematical axioms were proven by negating the parallel postulate, known as hyperbolic or Bolyai-Lobachevskian geometry. Hence the phrase 'non-Euclidean'. Understood?!

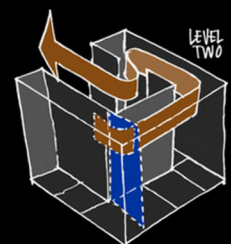
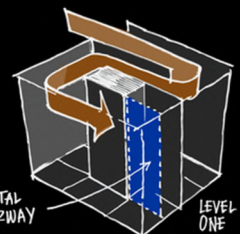
WHAT YOU EXPERIENCE:



AVAILABLE PLAY AREA



WHAT IS ACTUALLY HAPPENING:



You might be going round and round in circles on the carpet but you'll be stepping over snake pits in Egypt, exploring surreal planets or stepping inside a labyrinth in ancient Greece.

It works by using a method known as impossible spaces, or non-Euclidean geometry (see box).

Essentially, like the TARDIS in the sci-fi series Doctor Who, it's bigger on the inside than the outside. Every time you turn a corner, your world is recreated, and you can just keep on walking.

With a nod to the original VR game that used this trick back in 2016 - Unseen Diplomacy - meet the developers of three amazing impossible spaces experiences in the following pages - [TraVRsal](#), [Tea for God](#) and [Lavrynthos](#).

MEET THE DEV! ROBERT WETZOLD

TRAVRSAL!

Adventures with Impossible Robert inside his app, TraVRsal.

The brilliantly-monikered Impossible Robert appears in a spiky red leather jacket with slate grey eyes and a five-o'clock shadow. His avatar is true to form. 'That's me', he laughs.

I'm on a beach volleyball court in Brazil and he's in his apartment in Heidelberg, Germany. We are virtually face to face inside the lobby area of the app he created, TraVRsal.

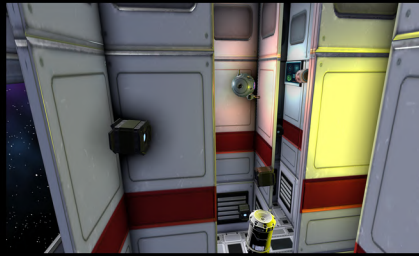
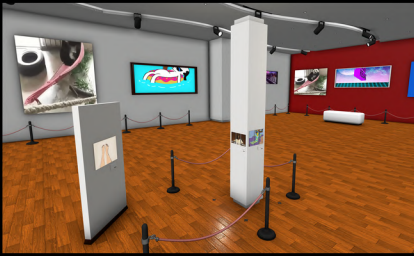
'To my knowledge this has never been done before, it's a world first!' he exclaims, waving excitedly. As pioneers we are inside the first multiplayer example of an 'impossible space', a passion project Robert began two years ago and launched on App Lab in June.

I spin around the holodeck. There's half a dozen games to choose from. 'Let's go into the Pyramids,' announces Robert and a pair of red feet appear facing a portal. I venture forwards and suddenly we are inside a labyrinth. I point my torch up at Robert and his face, lit from beneath, glows demon-like.

'to my knowledge this has never been done before, it's a world first!'

We walk on past the mushrooms and vines inside the dark chamber, listening out for the chains of a spike trap, finally reaching an open area on top of a grave pit where snakes slither beneath.





'The Pyramids is the first world I created', says Robert. 'I wanted to transport people to a place they could never go to like the Pyramids, full of traps and riddles and so on, and just give them this explorer feeling.'

We pause at an ancient door with two statues guarding it, a fire burning and a fresco of pharaohs.

'It all began when I stood in the middle of my playspace and I thought 'there's not so much space, maybe we need some tricks'. Then I discovered some games that had tried it. And I thought 'let's expand on this'.

'I think it comes down to fooling the brain. Let's imagine that you walk in a circle and when you look around the scenery constantly changes, so you think that you are walking towards a certain goal but actually you are still in your playspace.

'And just by constructing a level in a very intelligent way you can trick the brain and make the people think that they are going further than they actually are', he says.

One of the best uses of this is The Gallery, where you can upload your own photos. Not content with designing his own games, Robert has made available a

'world builder' for anyone to create their own impossible spaces experiences and upload them to TraVRsal.

It's an idea that was quickly embraced by the community. One user, Andi C, created two worlds without any previous coding experience. One, The Tower, is a vertical high-stakes drama against the clock.

'Andi is a poster child because he hadn't developed in his life before and he was so happy and enthusiastic about it. It's amazing to see what he came up with,' beams Robert.

Has he ever met Andi in real life? 'No not yet! We met here in the multiplayer environment. It's a pure virtual team and collaboration. I love it.'

We come to the end of our session, a final race through The Spaceman game. TraVRsal clocks the number of metres walked - 57 - and a robotic overlord chimes in: 'Impossible Robert has left the party'.

Listen to the podcast
'Adventures with
Impossible Robert!'





Aside from **Tea for God** and **Lavrynthos** (featured on the following pages) Robert points to a handful of inspirational apps on his field research blog [here](#).

One of the original games is Katie Goode and John Campbell's **Unseen Diplomacy**, released for Vive in 2016.

'It's an amazing four minute random maze experience using a room-swapping corridor method which is nicely masked by using doors one can open and close.

NATURAL WALKING IN VR!

Space Pirate Trainer DX added an Arena Mode last month, enabling players to use the max guardian boundary of 10m x 10m. It means you can freely run around in a game of space laser tag!

In **Custom Home Mapper** you can map your own home using the new Passthrough feature and safely disable the guardian. Then recreate your entire house in the style you desire, transform it into a jungle lodge or play mini-golf! Genius.



'It's fascinating to see what ideas people come up with. Artificial locomotion techniques are really ingrained and just starting to walk really surprises many people,' he says.

Some like **Eye of Temple**, **Spellbound Spire** and **Shattered Lights** are only available on PCVR. But he points to Quest launch title **Shadow Point** which uses portals, and an upcoming title from fellow Germans, Curvature Games.

'I'm really curious about **The Amusement** which is slated for next year. Using multiple redirected walking mechanics the player can explore environments. It seems to focus on moving platforms, elevators, climbing and room switching.

'I never see those games or experiences as any competition. The rising tide lifts all the boats because we are in this niche area of impossible spaces.

'We have to bring this notion of natural walking to the public because it is not yet a well known concept,' says Robert.

* **TraVRsal** is **free** on App Lab.

MEET THE DEV! JAREK CIUPIŃSKI

TEA FOR GOD!

The cult indie game that just got a fresh App Lab release.

A door opens, a corridor beckons and into the maze you go. It's a crazy feeling and incredibly liberating to literally walk inside this surreal universe.

Thanks to hand tracking you are free of the controllers, too. Make the gesture of a gun with your hands and you can pull an invisible trigger, shooting a scuttling robot or two.

Suddenly there's a window. The outside world is barren save for some imposing structures and what looks like the odd Zeppelin flying overhead.

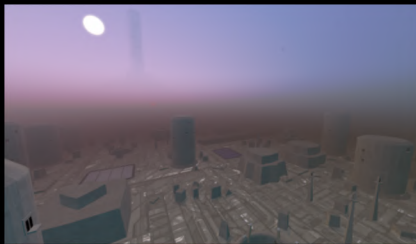
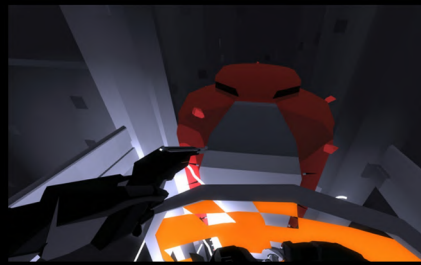
This is Tea for God and it's all the work of Jarek Ciupiński, aka Void Room. He began fiddling with portals as a way of countering motion sickness.

'I like doing things. I like creating worlds, I like exploring new possibilities. I have been thinking about doing games since I was a little kid,' says Jarek, who is from the small Polish city of Marki, just outside the capital Warsaw.

'In 1980s Poland it was hard to get new games so I began to make them'

'I started to make games because back in Poland in the 1980s there was very limited ways of getting new games and when I'd played all the games that I had, I thought 'OK, you have to make them.'

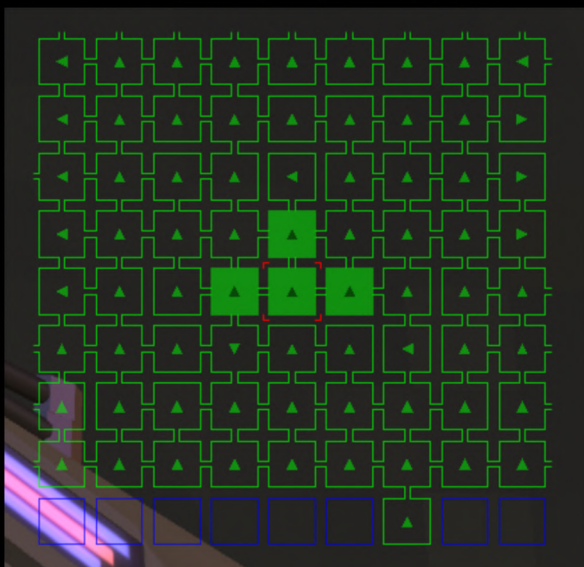




'And I enjoyed it. I enjoyed making games and making things move on screen. Creating characters, worlds and stuff happening. And I still do.'

What makes this mysterious adventure special is that doesn't matter how much space you have, the game will expand and contract to fit using procedurally generated levels. It would work inside a cupboard, says Jarek.

'You can just walk for miles and it doesn't require any loading screens, it generates the world in real time. There's a lot going on that the players don't see. It's actually a bit of smoke and mirrors,' he explains.



The game itself is an atmospheric shooter set in some kind of interstellar universe. Mankind is ruled by a God-Emperor. There's an arcade mode which is checkpoint-based and roguelite 'for tinkerers and explorers'.

Tea for God has an almost legendary status amongst impossible spaces aficionados, with a 90% positive rating.

'It's overwhelming. Whenever I read the reviews I'm surprised that people love the demo so much but I'm anxious to see how people react to the finish product. It's thanks to the players I have got this far.'

But despite the plaudits, Jarek reckons that the motion technique is not yet quite ripe for the big boys.

'Impossible spaces are quite experimental. It won't be the only way of doing games in VR but I hope it will be a significant locomotion solution,' he says.

And why is it called Tea for God? 'The God-Emperor cannot get anything from outside unless someone brings it to her. And she loves tea,' he laughs.

* **Tea for God** is **free** on App Lab.

MEET THE DEV! FABITO RYCHTER

LAVRYNTHOS!

From the amphitheatres of ancient Greece to animation in VR!

From the very cradle of modern dramatic theory to the cutting edge of VR, Lavrynthos tells the story of an unlikely relationship between a minotaur and a young girl.

In a tale once played out 3,000 years ago in ancient Greece, the mythical half-man half-bull creature has been imprisoned in a maze.

Enter Cora, a plump maiden who is delighted to have been chosen at birth to be fed to the minotaur. But rather than a monster, she finds an emaciated snow-white beast. You walk around the labyrinth from scene to scene using ingenious space-shifting dynamics.

'Every storyteller should wake up everyday and pray to Aristotle!' jokes Brazilian director and former TV script writer, Fabito Rychter.

'We thought it was cool because VR is the most modern format to tell these stories and we thought it would be a fun game to go the full circle.

'I've tried many times to explain impossible spaces for people who have not tried it and I think it *is* impossible.

'At the Venice Film Festival I could see in people's faces that they had no idea what I was talking about!'





'At lot of people get stuck in the first room but if you make everything too obvious you miss the 'A-ha!' moment, the magic. You need to leave some space for the audience to feel smart.'

Fabito breaks the fourth wall and has the characters speaking to you to aid your path through the labyrinth. There's some exaggerated pointing and the whole play takes on a humourous tone.

'You need to leave some space for the audience to feel smart'

'Writing for VR is hard. On paper it works but when you try it in VR it doesn't work. We had a cartoon character delivering a very deep and serious text.

'It felt a bit like The Muppets reading Shakespeare, it wasn't working at all. So we added some jokes and lightness to the text and had the characters talking directly to you,' he reveals.

Fabito set up Delirium XR with Amir Admoni in 2016 after one of those moments of epiphany common to VR enthusiasts.

'It felt like The Muppets reading Shakespeare so we changed the script!'

'I had just moved to Peru and one day I went to a shopping mall and they had an Oculus demo, something about dinosaurs. It was the first time I had ever tried a headset and I quit my job of 15 years right there and then.

'I realised that this was the future of entertainment because it was impossible to do in TV. I saw the opportunity to create a new language, and that's what motivated me to drop everything.

'Why am I doing art? There's a huge army of people producing crappy stuff and I think it is our mission to be on the other side creating cool and beautiful stuff,' he says. 'VR needs its own tricks for telling a story and causing emotion. Now is a good time to create something new.'

* **Lavrynthos** debuted at the Venice Film Festival last month and although it is yet to have an official release on the Quest, keep your eye out for a showing at one of the many hybrid online events.

REVIEWS

arena scale games! 🏠↔️



Space Pirate Trainer DX | \$25

It's paintball in VR! It's laser tag in space! It's a groundbreaking first major arena scale game and a protent to a whole new genre.

Requiring a minimum of 10m squared - roughly half a tennis court - Arena mode gives you the incredible liberation of being able to run freely around inside five bespoke lels shooting droids or each other. It's hide and seek and it's a lot of fun!

In Online Arena you can challenge a friend and in Co-located Arena two can play in the same physical space. Single-player is against the AI bots.

You'll need space, light and wifi! Play at dusk or under illumination.



Custom Home Mapper | \$8

The new Passthrough feature should finally bring this genius app to the audience it deserves. Map your home and safely disable the guardian. Then recreate your entire house in the style you desire or turn it into mini-golf!

REVIEWS

escape room games!



A Rogue Escape | \$20

A polished and stylish entry with escape room vibes, A Rogue Escape is a puzzler with zero hand-holding.

It all takes place inside the Nauticrawl - some kind of underwater craft - and you are left to figure it all out standing at the controls without a manual (well, just an iPad-like device with cryptic clues).

What does that lever do? What happens if I flip that switch? Why does the power keep running out? It's a logic brainteaser which edges slowly and satisfyingly forwards as things start to fall into place.

You'll need a bit of space to operate the monster machine designed by Italian developer Spare Parts Oasis, but everything is in reach. Keep looking!



I Expect You To Die 2 | \$25

This sequel to a much-loved older puzzler, The Spy and the Liar delivers six fresh new fiendish escape rooms.

Still as a 007-style secret agent with seemingly unlimited access to cigars and champagne, your mission is to stop Zoraxis plans for world domination.

As a theatre hand in Operation Stage Fright to the Operation Rising Phoenix finale, you will perish repeatedly but the difficulty level is perfectly weighted to push you all the way to a triumphant solution. There's a host of bonus souvenirs to collect.

The nod to spy films and voice acting is top class with a warm humour percolating throughout. Welcome back, agent!

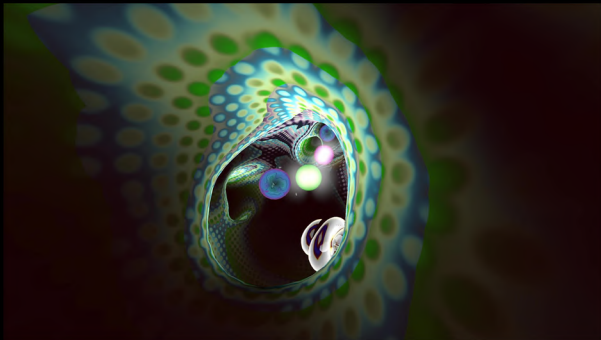
Exit Condition One | **free demo**

You wake up trapped in dark room alone. The light flickers. The only door is locked. You can interact with almost every object and it's best played in roomscale. Pilot a drone, smash things and find the exit! Full game expected in 2022.

REVIEWS

puzzle games!

meet the dev!



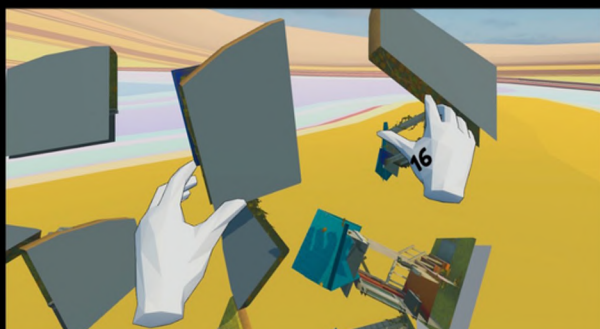
Squingle | \$15

Squingle is a totally trippy puzzler that doesn't shy away from being an out and out psychedelic experience.

Dance with your hands as you guide two revolving glowing orbs through iridescent tubes to a trance and ambient dub sound track with amazing binaural sound FXs.

Created by [Benjamin Outram](#), there are 100 levels which start easy and progressively challenge your spacial awareness. The game really comes alive in roomscale as you can walk around the puzzle, twisting it in space as you play.

There are some spectacular replays of your runs inside the tubes themselves in a meditation mode. A surreal, clever and addictive addition to the genre.



Wind Wind | \$20

Wind wind is a cute Korean diorama platformer featuring two characters that you control in turn as you climb the tower.

Joe and Koji are adorable - she giggles like she's being tickled while Joe does a great vacant stare. With controllers like pocket fans you push them with wind, but very gingerly, as they can wobble and fall.

You need get your new best mates to work together. Joe can smash boxes and block red lasers heroically with his welding helmet, while Koji has the ability to fly with her red umbrella.

The game sounds are wonderful, the cartoon art style is captivating and the mechanics are fun. With eight levels to solve, this is up there with the best.

Peco Peco | U\$10

Solve giant preloaded 3D puzzles from hippy art to the Mars rover Perseverance as they come to animated life on completion. Go from a simple seven-piece to an intricate 180. You can recut and remix any puzzle to challenge friends!

**MEET THE DEV!
SQUINGLE!**

A hand is shown holding a glowing, futuristic device. The device has a bright yellow and orange outer ring that glows intensely. Inside the ring, there is a dark, oval-shaped opening. Within this opening, two small, glowing spheres are visible: a green one on top and a purple one on the bottom. The background is dark and blurry, with some faint, glowing lines and shapes that suggest a futuristic or sci-fi environment.

TRIPPY FINGERS!

MEET THE DEV! BENJAMIN OUTRAM

DANCE WITH YOUR HANDS!

Psychedelic puzzler Squingle aims to take you on a spiritual journey

'When climbing up a mountain, it's sometimes nice to smell the flowers and feed the lizards,' opines your Goddess guide, a golden shimmering entity, encouraging you on your journey in the psychedelic puzzler, Squingle.

It's a reflection of the path UK developer Ben Outram has taken - through Buddhist meditation to living in Japan.

'It's something a teacher once told me,' says Ben. 'During meditation, when you get really concentrated, things can start to happen. People develop quite joyful experiences and that's wonderful but it can be an addictive problem to progress.

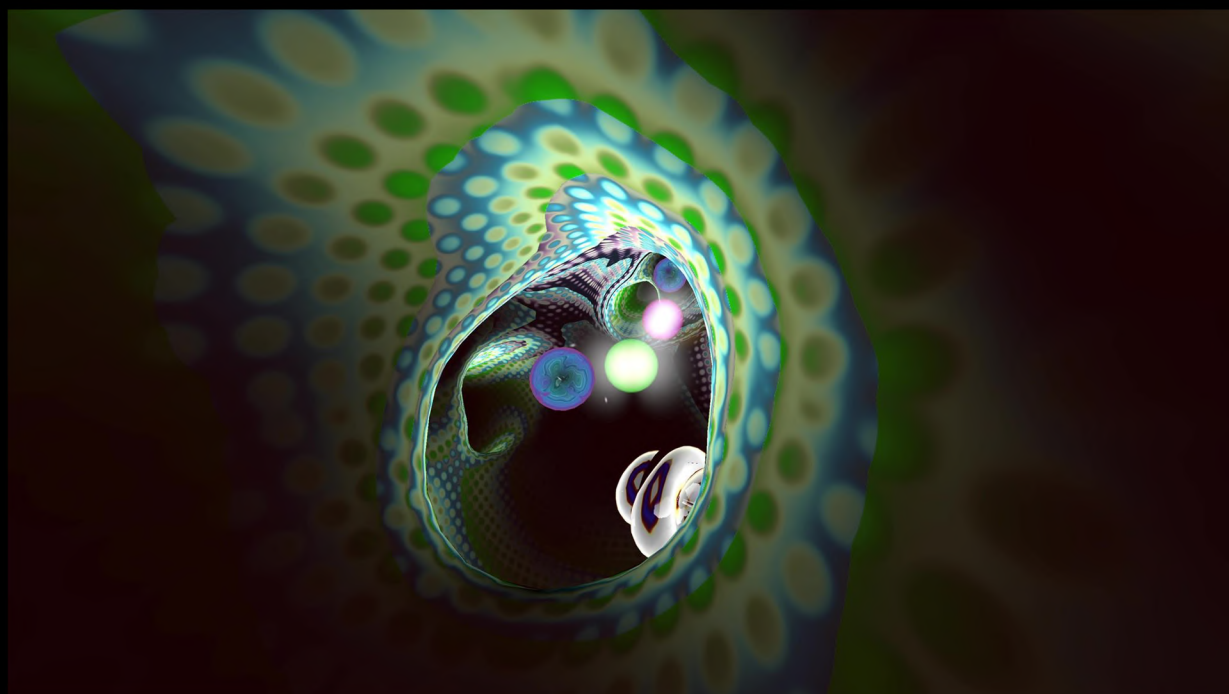
'At the same time it's OK to dabble in the joy and it's a bit like when you are

going up a mountain. You've got your eye on the top of the mountain but sometimes there's nice things to look at on the way up.'

There's plenty of beauty to admire in Squingle, a totally trippy puzzler that doesn't shy away from being an out and out hallucinatory experience.

'it's nice to smell the flowers and feed the lizards'

Dance with your hands as you guide two revolving glowing orbs through iridescent tubes to a trance and ambient dub sound track with amazing binaural sound effects.





There are 100 levels which start easy and progressively challenge your spatial awareness. The game really comes alive in roomscale as you can walk around the puzzle, twisting it in space as you play.

There are some spectacular replays of your runs inside the tubes themselves in a meditation mode. It's a surreal, clever and addictive addition to the genre.

'My background is actually in physics, and I did a PhD in liquid crystal display engineering in Oxford,' says Ben.

'Then I spent some time in Japan and learned Japanese where I did a post doc and that's where I made the switch to virtual reality.

'Liquid crystals are absolutely fascinating, not just from the visual perspective, they are very trippy-looking and beautiful structures under a microscope.

'They melt and writhe around and change their structures and you see this dance of nature self-creating these micro structures.

'You can sit there for hours getting mesmerised by these phase-shifting liquid crystals.

'With Squingle, a lot of the environments and textures I've used are from liquid crystal photography so it's a huge theme through the entire game,' he says.

It sounds gorgeous, too, with underwatery sound effects and calm trance music from Cai Jones. Ben has dabbled in this area before.

'if you get stuck, a good cup of tea goes a long way'

'Although Squingle is my first major game, I was involved in a project called Crystal Vibes, which was a very psychedelic music visualiser in VR.

'It converts sound frequencies into light frequencies, taking the sound spectrum of the music and mapping it to a visual spectrum of light. Having that in VR and combining the haptic suit and psy dub, it was quite a nice compelling piece to present,' he explains.

An occasional presence, The Goddess returns to lead you through the beginning of each of the five stages of the game - form, birth, life, love, awake. 'If you get stuck, a good cup of tea goes a long way (I have a potent selection),' she says.



Methinks she is not referring to a good old English cuppa.

'The Goddess character is inspired by author Terrance McKenna's descriptions of DMT experiences. He was completely crazy but I love the descriptions of self-transforming elf machines, ' laughs Ben.

'I'm happy to have been fortunate to have had many positive experiences with psychedelic drugs. I'm very interested in psychedelics as a field and in terms of personal experience. I'm interested in physics, cosmology and the universe, philosophy, things like lucid dreaming, altered states of consciousness, meditation.

'I feel like in my work on Squingle I like to have this lofty idea that I'm contributing to this cosmological process of going from no consciousness to some sort of culmination of whatever the universe has to offer in terms of consciousness or even post-consciousness. Who knows whether consciousness is where the buck stops?, ' he asks.

He thinks that blazing fast advances in tech could bring about a profound change.

'The universe *is* media technology. The trend is that every time there's a new media technology, there's an increase in the quantity, diversity and speed of information transfer. It's safe to assume it will continue at an accelerating rate.

'When we have fast telecommunications being able to transfer and read each others minds through technology, it's conceivable that our identity will change and that we'll no longer identify as separate individuals but as a single individual.'

Now *that's* what I call a metaverse.

'They say once you've got the message hang up the phone but I think it's about encouraging other people to pick the phone. I feel that there is something there to explore.

'It's part of my mission to try and improve that aspect of myself, and also it's fun to communicate about developing awe and curiosity about the nature of the world, of oneself and of consciousness, ' says Ben.

'I think this game brings all of those things that I'm interested in in one place.'

* **Squingle** is available as a **free demo** or on App Lab for \$15.

Listen to the podcast!

'Gazing At Ben's Liquid Crystals And Other Trippy Stuff!'

Subscribe on Apple Podcasts or Spotify!



REVIEWS

more puzzle games!



Gravity Lab | \$15

From the opening elevator muzak at The Gravitational Testing Facility & Observations (*sic*), there's a nice line in quirky humour here as you take on physics-based head-scratchers on an abandoned moon base.

You have to make trial test runs by spawning the tools at your disposal to solve each one, with acceleration tubes ('originally an upmarket potato cannon'), laser gates, sensor rings and other funky gizmos.

Bend time and gravity with over 50 puzzles by solo dev Mark Schramm. The difficulty level soon ramps up: 'Fun fact: Chimpanzees couldn't solve this one'. There's even a cute miniature version for seated mode.



Gadgeteer | \$15

Gadgeteer indulges your childish joy of building mad machines out of buckets and blocks and balls and bendy tubes that uses plain old physics to make crazy runs.

Endlessly customisable, you can create your contraption from scratch from 100 gadgets or adapt from a tonne of user efforts online. Make a chain reaction with boots, bananas, ping pong balls, skittles, rails, plungers, pots, plastic cups and even a rubber duck.

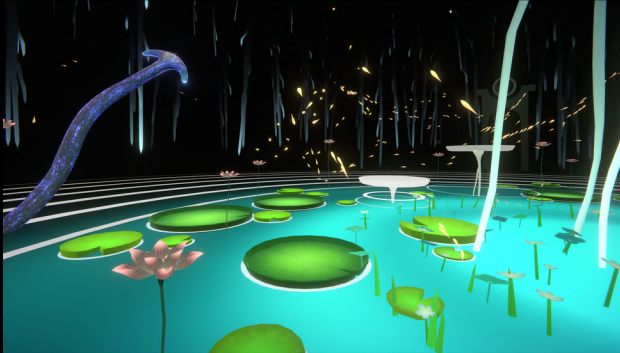
But first there's a campaign of 60 puzzles to plough through. You have a limited menu of available bits and bobs to get from A to B, but there's exploding confetti and party horns to celebrate your every victory along the way. Get your Rube Goldberg on!

Puzzling Places | \$15

A polished zen experience with gorgeous ambient sounds as you piece together 16 photogrammetry jigsaws. The puzzles - from 25 to 400 pieces - are obtuse, from the Cultural Heritage of Armenia to the Mars Desert Research Station (\$5 dlc).

REVIEWS

meditative games!



Fujii | \$15

With a child-like wonder, climb into a boat with your guitar-playing spirit guide as you journey to three psychedelic biomes before indulging in a bit of soulful cosmic gardening.

Yes, Fujii is unique. Soothing, playful and gorgeous, it's a fluid magical trip through lush forests, deserts and beaches. Bring them back to life through touch, light and energetic harmony.

Collect mysterious seeds along the way to plant and cultivate back at your own kaleidoscopic allotment.

With a therapeutic soundtrack by French composer Norman Bambi, Funktronic Lab's gem of a game leaves you in a state of relaxed delight.



Flowborne | \$10

Flowborne is a gentle meditative biofeedback breathing experience. The key here is the innovative movement design - place one controller on your abdomen and the very act of breathing out propels you through the calming natural worlds.

Travel through the The Hills of Hope or the Caves of Calmness at your own pace to soft piano and string arrangements as the occasional rabbit or elephant pops up to say hello in the minimalist stylised wilderness.

The app, which counts the length and number of your breaths, was developed by Johannes Blum & Christoph Rockstroh, two psychologist researchers at the University of Freiburg in Germany.

Cosmic Flow | free

Crucially this app allows to to re-centre your view to the ceiling so you can lie back and let the fractal patterns wash over you. Set the length to your own preference and bliss out to mellow music as your mind enters the tranquility zone!

REVIEWS

p v p multiplayer!

meet the dev!



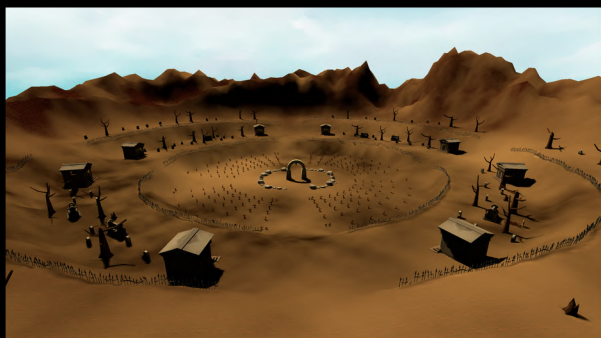
Eleven | \$20

This is some serious ping pong club. With 600,000 registered users, Eleven table tennis now hosts well over a million monthly multiplayer matches - that's almost 50,000 a day.

One of the world's leading sports simulators, it also has an incredible AI for solo play that goes from Easy to Legend.

'There are no tricks. This *is* table tennis,' says **Roman Rekhler**, co-founder of New York-based For Fun Labs. Clever illusions that shave milliseconds off the latency of the game means you can play from New York to China in real time.

Climb the rankings and enter official tournaments. You can watch the finals and some expert tutorials on youtube.



Blaston | \$10

3 ... 2 ... 1 ... Blaston! The genius of this duelling multiplayer that it is mute, creating the social mimes of bowing, waving and fist bumping as you face off like gladiators on neon podiums in front of a cheering audience.

It's like a non-aggressive fight with an array of toy weapons that deliver slow motion scatter bombs and splats. You need both tactical quick-thinking and premeditated skullduggery as you chop and change your arsenal of big pink balls and ice lasers between matches. It's deceptively energetic.

Resultion games continue to innovate - there's an amazing new passthrough mode, a single player mission and wild west quick draw duelling!

War Yards | free

The ace in the hole here is the slo-mo matrix-style 'bullet time' as your foes recoil as ragdolls! There's the fort, the mine, the train and now even 'Sand Hill' Cemetery, inspired by The Good, the Bad and the Ugly. Gunslingin' guffaws!

MEET THE DEV!
ROMAN REKHLAR



**VIRTUAL
OLYMPICS!**



MEET THE DEV!
ELEVEN TABLE TENNIS



roman rekhler

table tennis



eleven | \$20

We've come a long, long way since Pong. The very first video game I ever played - in 1977 - was as a knee-high nipper against my older sister with a white line hitting a square of pixels on the telly. Fast-forward almost half a century and I can now play across continents - still against my sister, over 5,000 miles away - on a perfectly authentic-looking table, *inside* the game and in real time. That is amazing.

'There have been so many iterations of Pong since the Atari. We are no longer thinking 'what kind of variant of Pong shall we make?', it's 'how close can we get this to reality'', says Roman Rekhler, co-founder and lead developer of New York-based For Fun Labs along with Hamzeh Alsalhi and Oscar Vazquez.

This is Eleven table tennis, one of the world's leading sports simulators.

So realistic is the game that leaning on the virtual table is considered a real risk and has caused many a player to face-plant the fireplace.

'There's a million monthly multiplayer matches'

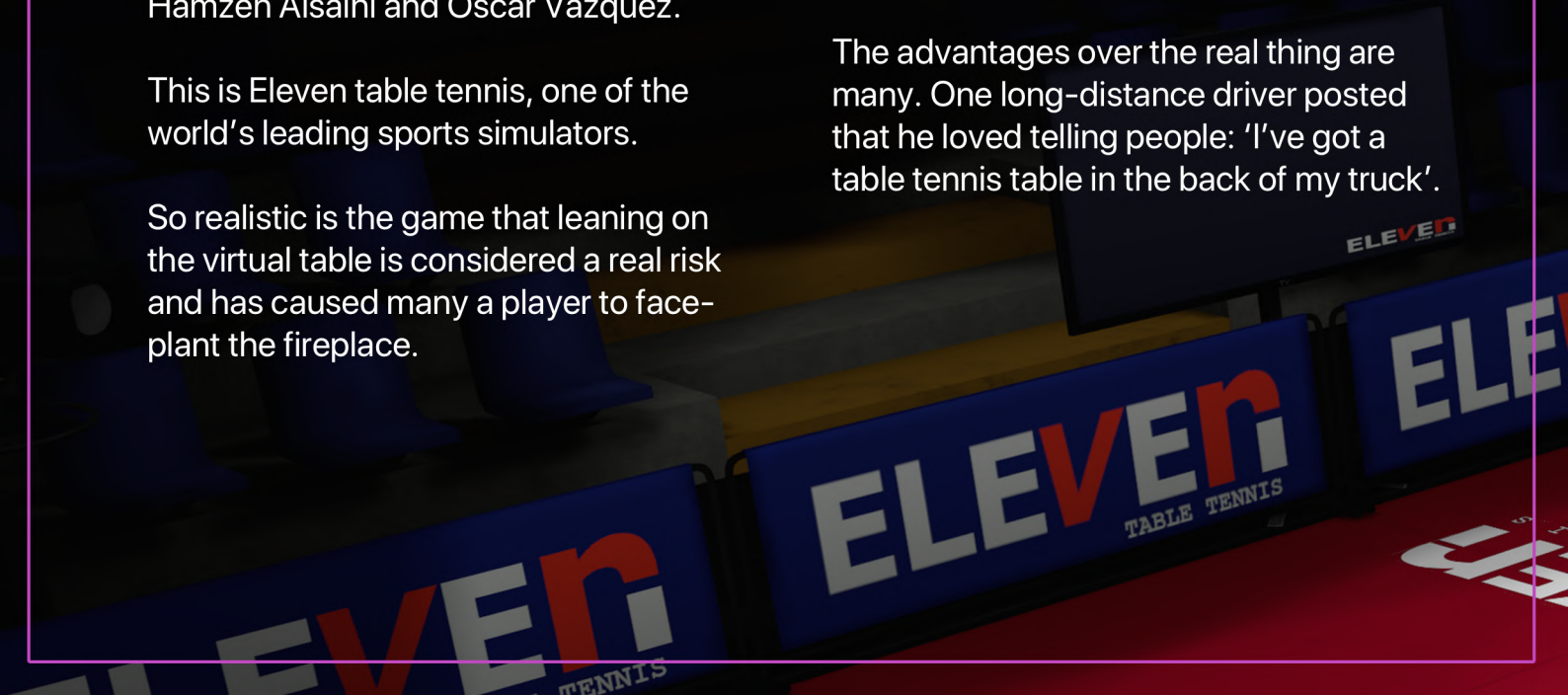
'Some players actually line up a kitchen table against the virtual one. When you are in the game, you just need to get that ball!', laughs Roman.

One Swedish player I came up against was lamenting the fact he'd ordered a table tennis table before he'd discovered Eleven on the Quest. 'I don't even need it now,' he told me.

'There are no tricks. It *is* table tennis,' says Roman.

With 600,000 registered users, there are now well over a million multiplayer matches being played every month - that's almost 50,000 a day. This is some serious ping pong club.

The advantages over the real thing are many. One long-distance driver posted that he loved telling people: 'I've got a table tennis table in the back of my truck'.



MEET THE DEV! ELEVEN TABLE TENNIS

And the fact that there's is no more stopping to pick up the ball means that the play is relentlessly addictive.

But how, in one of the world's fastest sports, did the developers manage to pull off the long-distance real-time trick? A typical shot travelling at 25 mph takes on average just one quarter of second (or 250 milliseconds) to cross the table. Turns out it's a case of using ingenious illusions to shave milliseconds off the perceptible latency of the game.

'Until we have wormholes it will always be limited!'

'We wanted Eleven table tennis to be an experience that anyone could play anyone else on the planet,' says Roman. 'But no matter how quick someone's internet is, there is always a delay in the signal from one to the other.'

'So we hit on the idea to buy some time, and we call that ping compensation.'

OK, so let's look at this in slow motion.

'When I hit the ball, I'm watching the ball leave the paddle. At that moment you don't have control over the ball, so the first idea we had was for that ball to slow down by 5-10% so that I'm seeing the ball reach you 50 milliseconds later than you are seeing it.

'What that means it that when eventually you hit the ball, if the delay between us is 50 milliseconds, that will line up with what I'm seeing'.

Ever the perfectionist, Roman wasn't satisfied with this solution.

'Now that works, but it's not perfect. So what we changed to is something called ping ball. We launch a second ball from your impact point and do some fade-in, fade-out.

'So now you can play New York to China or Australia and eventually Mars and the moon, and the experience stays intact.

'Until we have significant progress in science - wormholes, portals - we are always going to be limited!' he jokes.



MEET THE DEV! ELEVEN TABLE TENNIS

Roman sees only the flaws, but for 99% of players the reaction is the same: it's perfect. But physics isn't everything.

'The thing that stands out is that the better a player is, the less they feel rushed. It looks like they have all of the time in the world to make their shot. Studies have shown that the better a player is, the less active their brain is in terms of sugar usage, ' he explains.

'In other words, they are not stepping on the gas - just the opposite. The patterns in their brains have changed to make it more efficient. Their body moves before they consciously think what to do.'

But before you abandon any hope of climbing the leaderboards, there's plenty of scope to practice. Eleven has an incredible AI for solo play that goes from Easy to World Class to Legend. There's a ball machine and a practice room for serves and targets.

The game has been in development for over five years and has incorporated the tiniest of details.

You can set up the paddle surface for bounciness and spin on both the red side and black side of the bat. And for true *aficionados* it even has the ability for the controllers to be set inside 3D-printed paddles. This is expert stuff.


The first official Eleven tournament took place in April and the first one-day challenge in May - you can watch the finals and some expert tutorials [here](#).

Meanwhile the International Olympic Committee itself is hosting e-sports for the first time, with baseball, cycling, rowing, sailing and motor sport.

'We are going to extend sports way beyond reality'

Although none of them are in VR, there's little doubt where it's all heading.

'The IOC wants to grow and change with the times. A future Olympics is going to be really interesting. I can definitely see them backing digital versions that are analogous with the Games, ' he says.

But Roman adds the killer rider: 'We are going to extend sports way beyond what reality could ever do.' 



The final of the first Eleven official tournament, won by Maik 'Aiphaton' Reusner

REVIEWS

social multiplayer!



Real VR Fishing | \$20

It could be the cherry blossom falling into Lake Hosan as you cast the line. Or the rain falling as you fish from your boat in Chungju. Or a rainbow over the River Han as you chase minnows.

Whatever it is, everyone seems to fall in love with the simple bliss of Real VR Fishing. Yes, of course there is the drama of trying to land a mako or tiger shark, but it's the sheer tranquility of the photorealistic scenes across South Korea - and now the US West! (\$12) - that make this game special.

With a total of 40 freshwater or saltwater locations and lure or float, you can fish with friends, compete in the seasons and listen to your own music. Chill out back at the cosy lodge.



Walkabout Mini Golf | \$15

Whether it's out of this world at Tethys space station under Saturn's rings, or bumbling around a rainy graveyard in Original Gothic, this is the craziest of crazy golf.

Consistently rated as one of the best multiplayer games, this gem from Texas-based Mighty Coconut delivers a vareity of gorgeous courses to idly wander around as you putt and chat. New courses are being added at \$3 a go.

Find hidden balls or score 10 under par to unlock harder modes with added 'foxhunt' mysteries to solve!

And you can even aim your club straight up and soar like Mary Poppins above the greens to get a bird's-eye view. Fore!

Black Hole Pool | \$15

Get some cue action with David Ipac's excellent cool blue baize game which just gets better and better. Now with a giant youtube screen, a roaring fire and a view of the Alps! Play solo or invite a friend. Rack 'em up!

REVIEWS

co-op multiplayer!

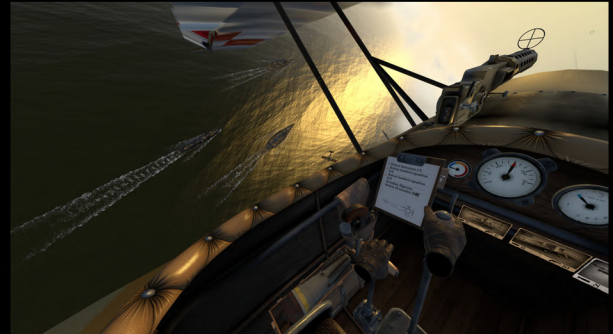


Grapple Tournament | \$15

This stylised cartoon style arena shooter is a blur of swinging, springing, parkour, climbing and running in a vertical combat. There's seven maps and a dozen weapons in multiplayer from melee blade to rocket launcher.

If you are a sucker for the grappling mechanic this one's for you. Pull weapons towards you with your hook or use it to propel up and get away. It all feels intuitive and fun. The neon Zion level gets the popular vote.

Multiplayer is new but there's a strong player base already from other platforms. Join the fun or train against the AI bots on any difficulty on the Spiral level. 'Triple kill!' 'Serial killer!' 'Savage!'



Warplanes | \$15

Hand-thrown bombs, flares, a machine gun prone to jamming - this is the Great War with heroic dogfights against fighter squadrons, taking out blimps, trucks, warships and even a hurtling steam train.

A mix of arcade and flight simulator (with tweaks in-between for motion sickness sufferers), Warplanes sees you fighting with the Central Powers or Triple Entente. The graphics are sumptuous whether flying over cities in the moonlight with spotlights and flack artillery, or dusk over snow-laden landscapes.

You can build a squadron with a choice of 14 planes and as well as co-op there are single player and PvP options. Polish developers Home Net Games give you the tools to be a pioneer of aviation!

Racket NX | \$20

Mad futuristic neon-lit geodesic dome? Check. Metallic lizard-like multiplayer opponents? Check. Wacky new squash-breakout fusion sport with tractor beam? Check. Your own music and level design? Check!

VR & non-VR multiplayer!



Carly and the Reaperman | \$20

Our green-haired heroine Carly arrives at Sunrise Avenue train station. She hops off on to the platform. Your massive grinning skull looms into view and your huge bony digits dwarf her tiny hands. You fist bump.

Developed by Odd Raven studios, it's a genius concept. The game is optimised as a two-player remote online co-op where one plays Carly on a flatscreen PC or mac while the other is the Reaperman in VR.

Aside from dressing up in comedy wigs, the Reaperman must employ blocks, torches and switches to help Carly as she navigates this fiendish 50-level platformer set in the supernatural world of the dead.

You can play on two Quests too or as a single player - but that's not half the fun.



Acron: Attack of the Squirrels! | \$20

An oldie but a goodie from Resolution Games, Acron is an asymmetrical family party game. The player in VR is an old tree, defending itself from the animal creatures (others on phones) intent on stealing the golden acorns.

A minimum of one is needed to play against the tree but you can add up to another seven bots or people.

Each player has a different power - a squirrel can run, a beaver can build - as they lay siege, defending themselves with pumpkin shields or an Indian headdress. At ground-level it's a complicated terrain, whereas the tree has the advantage of height and an unlimited amount of weapons. It's a take-it-in-turns affair to be the tree and lots of really silly fun.

Do You Copy? | \$13

In VR you are a thief wandering around a pretty unsecure bank, blind to the dangers. On a mobile your cohort is your eyes and ears with a floor plan to guide you past guards and security cameras. Find the safe together!

REVIEWS

hand tracking games! 🖐️



The Curious Tale of the Stolen Pets | \$15

'I remember when you used to smile like that,' says your top-hatted grandfather as another pet pops out, grinning widely.

You'll be laughing too. Curious Tale by Swedish developer Fast Travel Games is as cute as a kitten. As soon as you push Spot on the swing in the summer house you'll be hooked. It's short, but bliss.

Poking and prodding around the five floating islands with hand tracking enabled is a childish joy. From a day-glo T-rex to a rainbow-coloured unicorn, there's 23 of the little creatures to find.

Throw in some Scandinavian folktronica by Wintergatan and a snow-melting mini hairdryer and you've got a unique tonic.



Waltz of the Wizard: Natural Magic | \$20

Flinging lightening bolts and casting spells with your own fair hands, it feels like you are in Disney's *Fantasia* in this classic title from Icelandic VR company Aldin.

It's a magical playground where you are given free reign to explore the Tower and its secrets. A cool comedy runs throughout with a talking skull as your best friend.

With a huge 'natural magic' expansion upgrade, there's a gorgeous courtyard and 40 more lavish levels in the fortress, although these new areas are yet to feature hand tracking. But in compensation you have the ability to sonic scream and now even use voice control! There's a unique 'telepath' movement and you can actually run! Enchanting and fun.

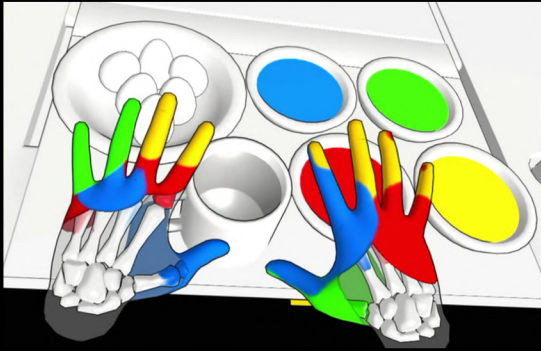
Chess Club | \$15

Play novelty battle chess in Stonehenge with animated pieces or a classic game in the Grand Palace. There's competitive multiplayer from 5 minute blitz to 30 minutes tournament or custom AI up to Grand Master. And all with hand tracking.

REVIEWS

more hand tracking!

meet the dev!



Hand Physics Lab | \$10

A riot of cartoon hand tracking fun, Hand Physics Lab has a playful design with 85 daft puzzles to solve with your bony hands. It starts off with baby steps but then things get harder – and weirder.

Finger-painting, Jenga, flinging planets into orbit, being a pupper-master – it's like being in mind of a hyperactive child, but is actually the creation of Swiss neuroengineer **Dennys Kuhnert**.

Remote control a toy car with finger gestures to the tune of the Dance of the Sugar Plum Fairy and shake hands with your clone – it's clear that the tech itself is still in beta but it's all a great laugh.

The undisputed star of the show, though, is the virtual pet black cat, Mr Snuffles.



Tiny Castles | free

Behold the awesome power in your hands! From wielding an icicle like a club to virtually-controlling a titan, this tech demo from Oculus shows an exciting vision even with the current limitations.

There's four mini-games for you to help shuffling miniature maidens make their way through the temples and defend them from attack from cackling gremlins.

Try a unique warp teleportation (grab and pull), throw fire (with a rawwk action!) and even pick up unit commanders to programme their next move in the sky, lava, ice and moss castles.

There's a playground to try out all the bells and whistles (and cranks and levers). More on the Oculus blog.

Eternal Starlight | \$20

Tactical space combat with a challenging permadeath mechanic, Eternal Starlight is a complex beast but you can sit back and control all the action with your hands. Hit skirmish mode for custom battles. Just be prepared to die and die again.

The image features six 3D hand models arranged in a circular pattern around a central black area. Each hand is composed of colored segments: red for the palm and base of the thumb, blue for the back of the hand and fingers, yellow for the tips of the fingers, and green for the sides of the fingers. Some models also show a white skeletal overlay of the hand bones. The background is black.

MEET THE DEV!

DENNYS
KUHNERT

**LET YOUR FINGERS
DO THE TALKING!**

dennys kuhnert 🖐️

Hand Physics Lab is riot of cartoon hand tracking fun

'The future will be based on this, that's for sure. Everything we do in life in general, like using a phone, will be replaced by hand tracking. The way hands are perceived has been drastically changed,' says Swiss neuroengineer and VR developer Dennys Kuhnert.

A world-leading expert in the application of hand tracking technology, Dennys released his solo project Hand Physics Lab on April 1. Many apps have added integration, but this is the first to be designed this way from the start.

'Human, brain and machine interactions have always been my passion,' says Dennys who co-founded Holonautic Studio in 2018 with Roger Küng after both quit their jobs in biotech for their 'crazy and risky' venture.

'It's incredibly powerful, it feels magical. It's a natural instinct to want to touch things,' continues Dennys. 'We are playing with the brain's capacity of overcharging the visual cortex so, for example, you might think you feel resistance to a heavy cube but you are actually just pushing air.'

Hand Physics Lab has a playful cartoon design with 85 daft puzzles to solve with your bony hands. It starts off with baby steps but then things get harder - and weirder.

'You can have the most mind-blowing experiences, like being able to do a handshake with a clone of yourself or detaching your hands and still controlling them. Where is the limit of the mind and how far can we extend it?'

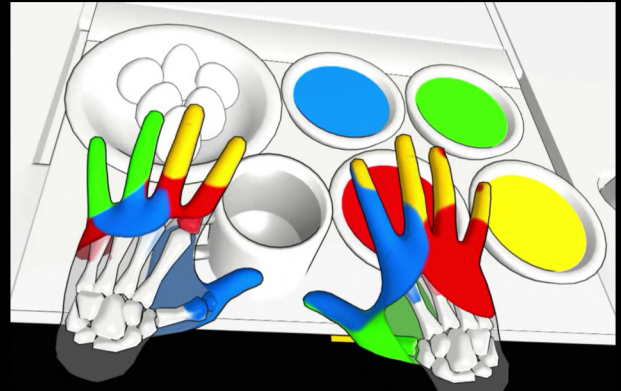




'In the absence of any other proof', Sir Isaac Newton once opined, 'the thumb alone would convince me of God's existence.'

Has Denny's relationship with his own hands changed? 'Yes, definitely. That's the beauty of it actually because you basically rediscover your hands. Many times, in day-to-day activities like eating, I saw myself playing with my hands or trying to make some weird finger gesture, ' he muses.

The reveal of a prototype AR wrist band from Facebook Reality Labs shows that major advances are just around the corner.



Remote controlling a toy car with finger gestures is a unique joy, and you can even have your very own 'Alas por Yorick' moment - 'a fellow of infinite jest' - playing with a skull.

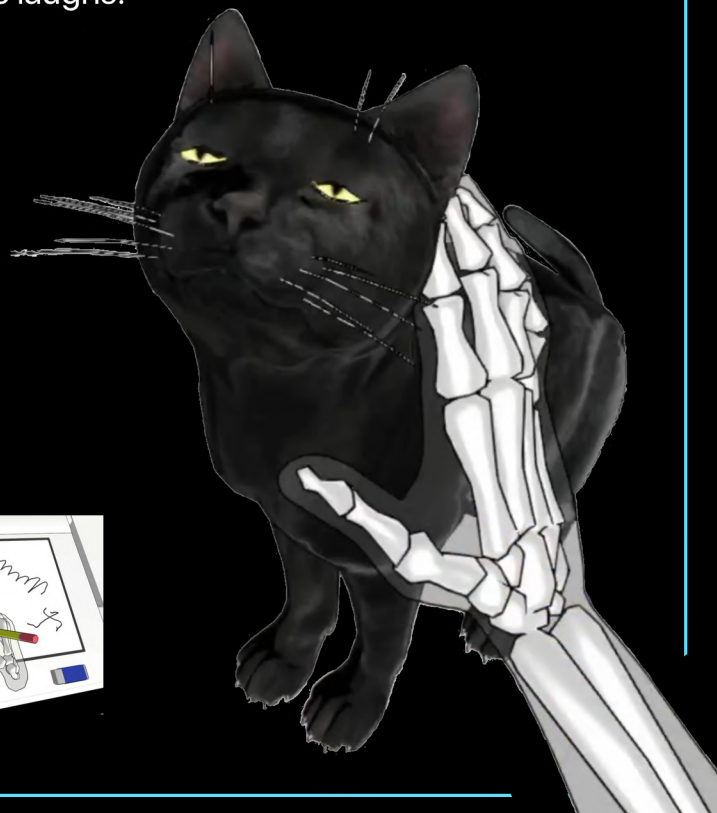
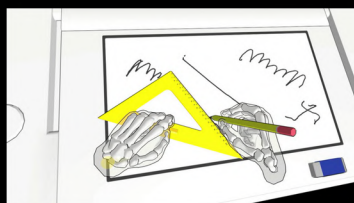
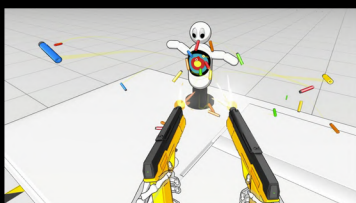
The undisputed star of the show, though, is the virtual pet black cat.

'Everyone wants to know about the cat! Currently he's called Mr Snuffles. He not too stupid but also not too bright, you can stroke it, it reacts. People wanted to know if you can throw it around and you can but you shouldn't - it's a cat!' he laughs.

Meanwhile, it's clear that the tech itself is still in beta - this app is a lab, after all - but it's all great fun.

Finger-painting, Jenga, flinging planets into orbit, being a pupper-master - it's like being in mind of a hyperactive child, all to the Dance of the Sugar Plum Fairy.

Hand Physics Lab is available now for US\$10.



REVIEWS

sports games!



The Climb 2 | \$30

In this sequel it's the city skyscrapers that take top billing - a totally different experience to the stunning landscapes of the Alps, Bay and Canyon levels that came before (and are updated here).

But it's the frozen wastes of the North which are perhaps the finest challenges. Creaking ice, a howling wind and chattering puffins accompany your ascent - in casual or professional mode.

Throw in a family of polar bears and an Arctic wolf prowling around an abandoned airplane and the experience has really reached its dazzling pinnacle.

Developers Crytek have now added rhythm challenges and more in two Freestyle Expansion Packs.



Holopoint | \$15

With its origins in the samurai of feudal Japan, Kyūdō is the martial art of archery. Holopoint, from Florida-based Azlan studios, arms you with a bow and arrow against holographic projections of blue sword-wielding and orange star-throwing ninjas.

Dodging and ducking, it's a fierce workout with squats burning your hamstrings and glutes. You begin in a minimalist dojo shooting cubes and shapes who fire back when hit. Drawing back to your cheek allows you to quickly reload from your quiver by reaching over your shoulder. Listen out for aural clues.

There's a new zen Garden Update with 30 extra waves. Checkpoints are at every five levels. Warning: intense!

First Person Tennis | \$23

An established simulator, FPT finally arrives on the Quest with fine physics and great commentary. There are five motion options depending on your space, plus arcade or simulator modes, multiplayer, seven court surfaces and a world tour.

REVIEWS

more sports games!



Carve | \$20

Come into the cosy log fire cabin with your golden labrador puppy, a radio with snow reports and some old skool mixtapes on cassette. Choose your gloves and your board and you are ready to shred the powder!

Carve is a lovely, intuitive arrival on to the slopes. Crushy snow sounds, squeaky gloves. And then ... go! Flying over mumps, skidding over handrails, dodging rocks and snow-laden trees, you career down the mountain at exhilarating speeds. In time attack that's the objective - to unlock more levels from forests to caves and a new night mode!

Or you can go freestyle, then it's tricks and flicks. From the creator of 1080 snowboarding, published by Chuhai labs.



Thrill of the Fight | \$10

The undisputed heavyweight champion of boxing games, this is a serious workout in a down-at-heel gym.

It's a visceral affair with cuts and nosebleeds as you fight your way through the nine opponents to reach the championship arena.

A true room-scale experience, you'll be bobbing and weaving against bruisers like Ugly Joe, Duke and the Moneymaker. Real-life pugilists attest to the game mechanics as the real deal and there are bonus rounds against a zombie, a headless boxer and a ghost.

There's an exciting multiplayer sequel in the works from Sealost Interactive aka solo developer Ian Fitz. Knockout!

V-Speedway | free

Buckle up for some arcade racing around Shanghai-esque city streets in this smooth driving game with lovely handling and drifting physics. Italian dev Danjel Ricci has got his foot on the pedal with updates. Go single race or time attack mode. Top gear!

REVIEWS

even more sports games!



The Final Overs | \$15

Despite having a couple of billion fanatical fans globally, cricket is sport unknown to many. Get ready to be bowled over by The Final Overs, a passion project from the heart of one of the biggest cricketing countries in the world, Pakistan.

Developers Mixeal having been pouring their energies into creating an unmissable sporting experience - the climax of a thrilling match.

As the batsman, you must hit as many *runs* as you can. The glory is to hit a *six* over the boundary - and then revel in a slo-mo replay! Just don't be out for a *duck* (zero) or you'll see him quacking!

Play 3, 5, 10 or 20 overs and climb the global leaderboards. Howzat!



Neon Kite | \$7

Psst! Fancy a bit of eye-blistering strobing neon techno minimalist kite-boarding? Of course you do.

You've gotta move your body to the synthwave to surf and spin as Neon Kite is a button-free work in progress.

Play arcade or professional where you've got to edge your board to perform jumps. Score points passing through checkpoints or go wild and free.

There's optional waves, mountains and trees and you can toggle off the flasing imagery.

It's a crazy ride without getting wet by solo dev Alexis Taillon and with music by Bulgarian outfit <escp>.

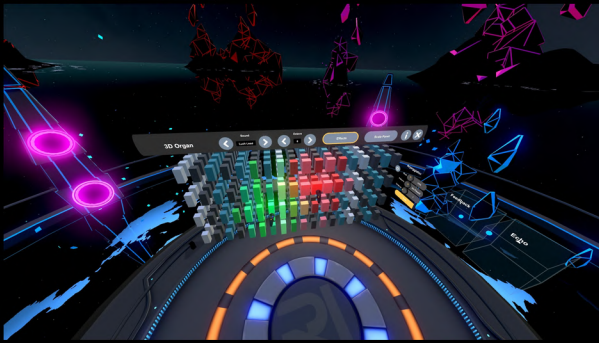
Just Hoops! | \$10

Styled on the old skool indoor basketball arcade games, In da Hoop takes it to a new dimension with hand tracking (although you can still use the controllers). There's 17 levels from bank to no backboard. Good shot! You win!

REVIEWS

creator tools!

meet the dev!



Virtuoso | free

A tool to play music with instruments designed for VR, Virtuoso makes GarageBand feel like the 18th century.

To a pulsating purple and blue neon background you can play the Oorgan, lay down a beat with the Empads, and discover the wHarp, Board and Clustr.

One hundred years on from the invention of the ethereal Theremin comes its freaky VR descendent, the Wavemin. You even have a mic.

Jonatan Crafoord is the creative genius behind the app, and one of a five-strong team at Really Interactive in Sweden. It's easy to build up a series of live loops and MIDI support means a huge potential for professional artists too.



Multibrush | free

Tilt Brush is dead, long live Tilt Brush! Google's seminal 3D painting tool, originally launched in 2016, went open source in January 2021 and within a week Multibrush was born as a free full feature version with added multiplayer.

'Your room is your canvas, your palette is your imagination' goes the tagline. Paint with the impossible, like smoke and fire, or chose from 85 different brushes, almost double the original slate. Clone creators Rendevar are on a mission to overcome social isolation through VR.

Whether you want to be a pro or just fancy some art therapy, there's an incredible community of artists out there to inspire. For a beginner's online course see Danny Bittman's channel on youtube [here](#).

Gravity sketch | free

The future of design? A powerful pro 3D modelling tool, Gravity Sketch takes you from free-form sketching to advanced geometry with a sleek, slick and intuitive interface. There's a learning curve of course, but there are expert tutorials.

BE A VIRTUOSO!

MEET THE DEV!

JONATAN
CRAFOORD



MEET THE DEV!

jonatan crafoord

Virtuoso is a tool to play music with instruments designed for VR

I bring up the 'Oorgan' and open the arpeggiator in effects. I switch it on. I'm still in silence, with the purple and blue neon background all around me. I dial the beat to 1/8.

Echo? Yeah, a little. Feedback is ok. Maybe three octaves? I pull the 'Oorgan' closer. I plunge both hands in and hit the trigger. The sound explodes, the room pulsates. Wow.

'The reason I call it the 'Oorgan' with two Oo's is because of the sensation you would get from starting to play on it, like 'Oooo, what's going on here!'

This is creative genius Jonatan Crafoord, the brains behind the app, and one of a five-strong team at Really Interactive based in Sweden.

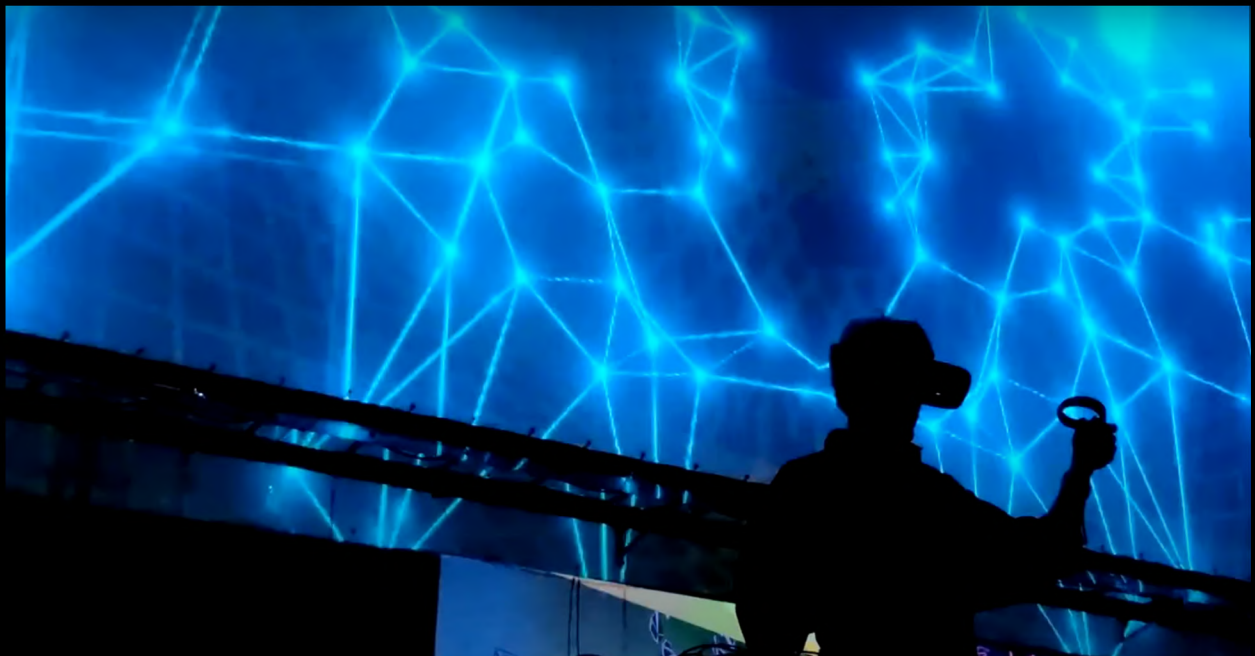
Watch the rave in the reactor [here](#).

'Most of the instruments are named in weird futuristic ways. We tried to step away from conventional and technical music terms, because we don't want to scare people away, ' he says.

So along with the Oorgan, you can lay down a beat with the Empads, and play the otherworldly wHarp, Board and Clustr. And one hundred years on from the invention of the ethereal Theremin comes its freaky VR descendent, the Wavemin.

Some instruments have up to 15 sound variations from Chew Bass to Canada Trip. You even have a mic.

'Much of the charm of playing Virtuoso is getting into the instruments, which are unique. I wanted to use all the dimensions of the Touch controllers, ' he explains.



VIRTUOSO

It makes GarageBand feel like the 18th century, and it's easy to build up a series of live loops. I suggest that, in VR terms, it's like the Tilt Brush of music creation. Jonatan, who has worked on video games for 15 years, likes the comparison.

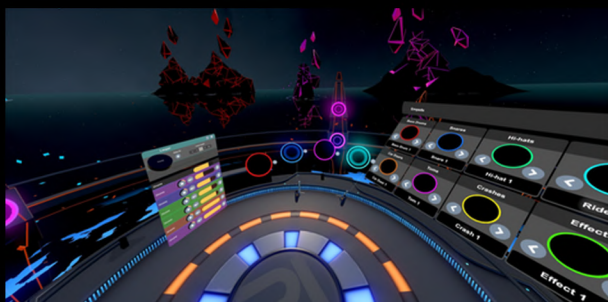
'I've never been much of a painter but the feeling I get from Tilt Brush is that I can really make things that are pretty and I kind of want to give that sense to people who have never played music before,' he says.

You can even adjust the timing of what you are playing to the beat with the app's tempo sync feature: 'You can lay down some pretty impressive drum tracks without really knowing what you are doing!'

Virtuoso has MIDI support via a companion app, meaning a huge potential for professional artists too.

His recent (socially distanced) live performance using Virtuoso at a decommissioned nuclear reactor in Stockholm - the R1 - has echoes of the energy, innovation and improvisation of the early days of rave.

'It's a new generation. The show paired up music and visual artists to perform, it's just an amazing space,' he says.



Are VR artists the next superstar DJs? 'I've been thinking about that a lot. I was quite involved in the club scene here for a while. I think there will be more places in VR to be social, including clubs.

'This is like a culmination of all of my passions in one - programming, music, sound and VR. I'm loving every second of it! I've kind of found my calling, so I'm having a lot of fun.'

With at least one major artist expressing interest - Jonatan remains tight-lipped as to who - does he realise how big this could be? 'No I don't think I do!' he laughs. 'I have my hopes of course, but I try not to think too much about it.'

Virtuoso is available now for free on app lab.



Illustration: Ville Ericsson

REVIEWS

indie games!



City of Eternity | free

'Stupid time-travelling tourists. Always leaving messes behind. Just another day punching the clock as a Time Janitor.'

An easy-to-pick-up original concept, City of Eternity has you on a march through time portals as a wage slave delivering artefacts back to their eras.

But the more you time travel, the more you have to avoid clones of yourself. It gets manic as 'you' multiply and the guards from each age close in - cavemen and mobsters, robocops and knights.

The walking mechanics are great fun - locomotion is through swinging your arms - and 2300AD has the perfect groove. Created by David Mines, it's one to play with a huge smile on your face.



Wrong Voyage Ex | free

It's an ancient title from Spanish indie Flying Guillotine but its great playability has given Wrong Voyage Ex the longevity to come all the way from a Game Jam for Google Cardboard to the Quest 2!

In a pixelated retro style with 2D jungle walls and dark emerald green labyrinths, the game has fantastic moody atmospherics and just the right side of tension.

Armed with a simple laser gun, you'll come across the occasional scuttling red spider, zombie or crazed illuminati figure but your main task is to activate what look like green circuit boards to unlock portals and operate platforms. The levels get progressively harder and more intense. Classic!

DAVID | \$15

Stylish and satisfying wave shooter where you control your ship and support drone in the 3rd person, like waving your favourite toys around! There's five chapters in this ace space adventure from Two Guys productions.

REVIEWS

more indie games!



Deisim | US\$8

World-building lends itself wonderfully to VR. You can fly across your domain in seconds, inspecting individuals and crushing heretics. Or pull out into a wide angle, cackling with evil intent or altruistic endeavour - it's up to you.

Deisim sets you up as an all-powerful God, destined to lead humankind out of the stone-age and into the future. You create biomes with a nonchalant flick of the wrist and watch as the Egyptians begin building golden Pyramids in the desert oasis or African villages emerge from a crocodile-infested swamp.

It's spellbinding to watch the progression of civilisations but you are not alone - watch out for the UFOs ready to decimate your carefully constructed universe!



Directive Nine | US\$13

A perfectly moody sci-fi shooter set on a spinning space station with surprises behind each vertical sliding door, 'D9' is fiercely addictive.

Equipped with a swap-over-the-shoulder dayglo orange pulse pistol with infinite recharge and an MK-4 rifle, you have to run missions past droids, goliaths and humans hiding round every corner.

As the battles intensify you can utilise a myriad of gun mods and earn credits to step up your loadout from taser-like photon neutralizers to a quad pipe.

Weapons carry over and no run is the same. There's an excellent seated option, too. Still in Early Access, there's clearly lots to come.

Flux Ball | free demo

You've got a huge baseball glove in your left hand and a pistol with spin reload in your right. Shoot the goblins and catch the balls in a fast-paced workout to a hectic beat while protecting yourself in a moveable cage. Great concept.

REVIEWS

even more indie games!



Ancient Dungeon | US\$20

Never has a pixelated wailing zombie ever felt so threatening. Solo developer Eric Thullen even has a content warning: 'contains blocky dismemberment and blood'!

Go further with each run into the dark randomly generated dungeon, armed with a sword and throwing dagger against evil poison-spitting plants, bats and jumping bushes in the Overgrown Gatehouse, on to the fire creatures of the Forgotten Library and beyond.

Smash everything, pick up loot and power-ups, and be prepared for a lot of close combat. More floors are being added including the Luminous Mines. 'Crush capitalism' is listed as one of the game's milestones. Might take a while.



HAX | free demo

HAX is a sleek and gorgeous cel-shaded single-player demo of an upcoming multiplayer with a very intelligent weaponry design.

With a flick, your magazines can become melee knives, grenades, reloads or used to capture terminals. It's a cool trick. By default you are armed with either a pistol or two-handed submachine gun for deathmatch or flag capture modes.

Play in the Factory, an abandoned Observatory (with ziplines!) or the Italian café style Old Town with Vespa mopeds ('Before robots, the world was quaint').

US-based Engine Organic studios have produced a classy design and a unique loadout. Highly promising.

Warchasm | US\$13

The twist with this title is that it's a real workout as you rumble Indiana Jones style through mine shafts. You've gotta have fast reflexes to physically roll and duck while being attacked by droids. And it's got some killer techno.

REVIEWS

art & music apps!



Vinyl Reality Lite | free

Are you kidding me? A pair of my very own Technix (*sic*) decks to play all my own music? And I can stream it live on a separate master audio output and record all my mixes? For free?

Wave your hands in the air for TTycho from Berlin who has developed Vinyl Reality for years but just released the Lite version for Quest.

A stripped back design means you can get on the ones and twos in minutes. A box of records holds all the tunes in your music folder. It's essentially a DJ sim and you could take your skills into the real world. An ingenious solution to the fact you're already wearing headphones is that you hold controller up to your ear to cue. Perfect if you've got a DJ itch to scratch.



Painting VR | US\$10

You stand in a huge white hanger with a giant canvas at one end. There are simple metal shelves laden with paint pots and brushes, spray paints and thinner. More pots are scattered on the floor and a massive roller is propped up, ready to go.

This is painting as a simulator, all the kit and no mess! There's a satisfying squelch as brush hits canvas and the textures glisten in the natural light. It's all very intuitive - you can mix paints right in their pots and blend strokes.

Or you can use a colour picker, change the lighting and import reference materials. Painting VR, from Oisoi Studios in Belgium, is still in Early Access but for now you can just stand back and admire your art!

Art Plunge | \$2

Magical immersion into five masterpieces which are brought to life in an inspired interpretation in VR. Featuring Starry Night, Mona Lisa, The Birth of Venus, The Creation of Adam and Girl Reading a Letter at an Open Window.

REVIEWS

tower defence games!



Inviders Galactic Defender | \$15

'Are you ready to space exterminate?!' Here comes another wave of those high-pitch screeching speedy orange bugs and monkey-faced Brawlers. Better load those turrets and get your pistol and bow-and-arrow ready fast!

Inviders is an intense arcade tower defence game set on rich cartoony planets, from the waterfalls of the New Era crystal lake to the hellscapes of Dante.

It's a relentless but fun shooter as you teleport from tower to tower, saving your killer over-the-shoulder laser against that last-second breach. An unseen voice urges you on: 'Ohhh what a show!' Back at the hub your kills are displayed in glass jars. Nice touch. An overlooked title from French studio Aiko.



Guardians | \$20

'The Base Is Under Attack!' Guardians is a unique fusion of strategy and shooter and you start as a cadet for the Galactic Federation (Est. 2690) on the desert world of Titan. It's just you and two combat droids against the aliens.

The Federation are mining energy crystals and you must defend against the space bugs with an insane variety of weapons and defences. Spawn turrets and tanks and use your gravity gun or mind-control grenade as you teleport and jetpack around the three planets.

It's got the full gamut - single player, or multiplayer co-op or pvp. With continual updates from VirtualAge studios - like being able to pilot the mech - Guardians goes from strength to strength.

Arrows | **free demo** | \$10

There's something about this old archery tower defence game that just feels fun. Defend the three villages at dawn, dusk or at night against the invading vikings with just your bow and arrow - and the occasional cannon for the giant golems!

REVIEWS

unique games & apps!



The Under Presents | free

I enter the lobby and a band, 'The Lame Drivers' - led by a giraffe - are playing. Someone hands me a blue flower. I cast a turnip spell and return the favour.

This is magical, theatrical world of 'The Under Presents', and we are mute black gowned sprites with golden masks. This voiceless multiplayer communication begs for mimes, finger-clicking, bows and courtesies and has incredible spacial interaction.

Tender Claws have created a piece of art with the amazing scrunch locomotion technique, essentially warping through space. The demo has over 30 minutes of single player mysteries to discover. Other adventures, like The Timeboat, are available for a fee.



Help Yourself | free

A true original, Help Yourself is a solo multiplayer - a co-op with clones of yourself!

A puzzle shooter, it's mesmerising watching replays of yourself playing alongside your current self in a surreal time-bending bond.

With a fun scrapbook cut 'n' paste art style, it's the leaf people (you) against the machines. Pre-load your green guns with seed-like bullets and toss it to yourself to be ready in the next time loop. As you progress, so do the number of clones and the complexity.

Made by Media Cube Games, five Masters students at Salzburg University in Austria.

Time Stall | \$15

Save the captain! An original concept where time stands still while you try and figure out what is gonna hit who before normal speed is resumed. There's a lovely line in humour aboard the Fantastic Leap ship. Roomscales required.



interactive animations!

Interactive animations are a whole new level of magic. Here's my top 12!

one!



wolves in the walls 🏠

app | \$9

do you believe me? 40m

two!



the line 🏠 🤖

app | \$5

Emmy award winner 20m

three!



luna 🧑🏻 🤖

app | \$15

back to life 1-2hs

four!

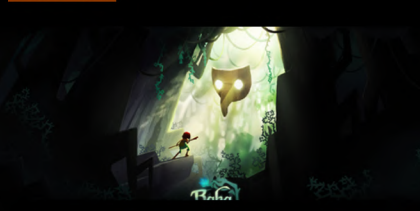


paper birds part I & II 🤖

app | \$7

music and light! 30m

five!

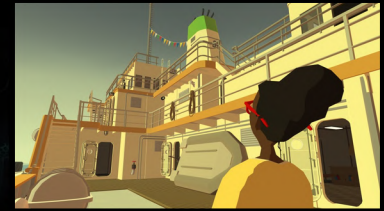


baba yaga 🏠 🤖

app | \$6

protect the forest! 22m

six!



timeboat 🏠

in app | \$12

'the under presents' 30m

seven!



battlescar 🤖

app | US\$6

girls invented punk! 28m

eight!

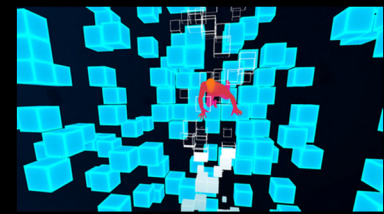


the secret of retropolis 🤖

app | \$13

play a robot detective! 1hr

nine!



goliath: playing with reality

app | free

exploring mental health 25m

ten!



madrid noir 🏠

app | \$9

Lola's journey 45m

eleven!



bonfire 🤖

app | \$5

play fetch with aliens! 20m

twelve! new!



luna: episode one 🤖

app lab | free demo

droid protects girl 10m

quillustrations!

VR Animation Player (the re-branded name for Quill Theater) is integrated into Oculus TV. It has immersive playback for films and you can toggle between any artist-defined angles for illustrations.



1 - the multiverse bakery
studio syro | free
unmissable adventures ...



2 - the neon jungle
studio syro | free
... from the tales ...



3 - the quantum race
studio syro | free
... of soda island! 3 x 5m



4 - the golden record
studio syro | free
if only Carl Sagan could see this! 12m



5 - the school trip
studio syro | free
there's magic in the water! 12m



lifetime achievement
parade | free
the lengths Yonaton Tal goes to for his mama! 15m



peace of mind
blue zoo | free
bing bong! dream interpretation 5m



rebels
federico breser | free
music is our freedom! 7m



four stories
nick ladd art | free
simultaneous quartet of fun tales 12m



nightmara: episode one
gianpaolo gonzalez | free
eaten your peas, Ned? 7m



the remedy
daniel peixe | free
seminal comic-book 10m



dear angelica
oculus | free
the first quillustration! 15m

animations archive

2020



the dawn of art

oculus tv | free

the cave of forgotten dreams 10m



saturnism

cine vr | free

Goya's hideous child-eating vision brought to life 4m

2019



ayahuasca

oculus tv | free

Jan Kounen's jaw-dropping Amazonian trip 18m



le soleil d'edvard munch

youtube vr | free

french language

warning: intense! 10m



the spacewalker

within | free

1965 Voskhod-2 rocket launch! 4m

2018



jurassic world

app | free

apatosaurus & blue 2 x 3m



crow the legend

within | free

from the makers of Madagascar! 22m



dreams of henri rousseau

youtube vr | free

genius rendition in a Parisian greenhouse 7m

2016



invasion!

app | free

aliens try to take over the Earth! 6m



dreams of dalí

youtube vr | free

inside a Dalí painting 6m



pearl

youtube vr | free

Oscar-nominated tale of father and daughter 6m

2015



the butcher

youtube vr | free

run, rabbit, run! 2m

film archive

2021
2019



YouTube VR



Download these apps. Pull up a swivel chair and grab some headphones for your best viewing pleasure. Resolution may be found wanting in older titles!

2021



surviving 9/11
oculus tv | free
reconstructed in VR 20m



the iss experience
space explorers | US\$3
episode II: advance 33m

2020



2nd step
app lab | US\$3
from the moon to mars 11m



the before times
youtube vr | free
did we know where we
were going? 7m

2019



-22.7°C
youtube vr | free
DJ Molécule in the Arctic.
Jan Kounen directs 9m



immerse
oculus tv | free
best underwater film 9m



traveling while black
felix & paul | free
Jim Crow era 20m



the overview effect
oculus tv | free
astronomical metanoia 6m



1st step
app lab | US\$3
moon trip on Apollo 11 14m

* **youtube vr** app limits resolution. Watch on **firefox reality**. Add Firefox Ad blocker extension.
Click quality setting (up to 8K) | Turn off subs | Click full-screen > goggles and choose 360 stereo.
* On **oculus tv** download cache to watch in high res. Watch **vimeo** on firefox reality.

film archive

2019
-
2018

2019



gorillapalooza

within | free

hang out with mountain gorillas in Rwanda 6m



cesare's dream

youtube vr | free

the cabinet of dr caligare - what is reality? 6m



dive blue planet vr

youtube vr | free

incredible guided dive with octopus 9m



iceland's glaciers

youtube vr | free

'what happens to ice, happens to us' 7m



tales from the edge

youtube vr | free

wingsuit base jumping with Jeb Corliss 9m



the atomic tree

within | free

400-year-old bonsai that survived Hiroshima 10m



pompeii

youtube vr | free

the heart of the eruption french language 8m



okavango experience

youtube vr | free

astonishing wildlife in the Okavango Delta 4 x 6m



polar obsession

youtube vr | free

seals in Antarctica 7m



free solo

youtube vr | free

climbing El Capitan solo style 6m



700 sharks

within | free

the largest gray shark pack in the world 7m



isle of dogs

youtube vr | free

stop motion studio 6m

2018 don't miss!

film archive

2018

2014



the real thing

within | free

Chinese fakes of Paris, Venice and London 16m



airpano vr jellyfish bay

youtube vr | free

brehtaking underwater film in Indonesia 3m



dolphin man - the dive

within | free

world record holder in free diving 6m



uaxuctum

youtube vr | free

orchestral interpretation of a Mayan legend 7m



charlie checkers goes to brazil!

youtube vr | free

six-year-old Charlotte's imaginary journey 7m

2017



space explorers

felix & paul | US\$3 each

amazing nasa docs 2 x 20m



zero days vr

within | free

documentary on the fourth dimension of war 21m



sanctuaries of silence

within | free

the last silent wilderness 7m



alteration

oculus tv | free

disturbing experimental AI sci-fi 17m



save every breath

youtube vr | free

WWII dunkirk 1940 4m

2016



nomads

felix & paul | free

maasai mara, yak herders and sea gypsies 3 x 12m

2014 don't miss!



strangers

felix & paul | free

just a guy making music 8m

coming soon!

Many of these titles are currently doing the rounds on the film festival circuit. See xrmust.com for all the latest screenings!



namoo
app | Q2
baobab studio's latest!



minimum mass
app | Q2
love, loss & black holes



biolum
app | tbc
deep sea sci-fi!



kusunda
app | tbc
Nepalese shaman



the iss experience
app | Q3
episode three!



grace
app | tbc
grace darling's life



african space makers
app | tbc
from Nairobi, Kenya



the hangman at home
app | tbc
the intimacy of humanness



whispers
app | tbc
Polish-Ukrainian border



all her bodies
app | tbc
five women's stories



replacements
app | tbc
neighbourhood in Jakarta



dreamin' zone
app | tbc
memories of Korea



interactive animations!



Wolves in the Walls | 40m

'I sat in my car for 30 minutes thinking about it. That could have been any character, that cube could have been any object,' remembers director Pete Billington as he describes his epiphany using the 'Toybox' demo which first illustrated animated user interaction.

That character became the adorable wide-eyed child Lucy and that cube became a Polaroid camera in the sensational *Wolves in the Walls*, an Emmy award-winning pioneer in the use of 'virtual beings', powered by AI.

The emotional bond with Lucy becomes as strong as her own with 'pig puppet' in *Fable's* adaptation of Neil Gaiman's eponymous children's book. You won't want to leave her side. Visionary.



The Key | 20m

Profound and unsettling, *The Key* takes you on a surreal journey through barren landscapes, watercolour skies and expressionless figures dressed uniformly in black.

One of them introduces herself as Anna. 'I can't remember where I came from,' she announces, 'but I keep having these dreams, and there's always a key.'

You are introduced to some friends at the outset - one likes to sing, another likes to dance, a third is shy. But there's a storm brewing.

Directed by Celine Tricart, you'll come across a multi-eyed bureaucrat and get a tongue-lashing from a demon and it may not make much sense - until the end.

Bonfire | 20m

As Scout 817, you've been sent to find a new home for humans. Before long you are playing fetch with a pink porkbun using cubed filipino beef skewers. Weird. Do you save the human race or your new alien friend? From Baobab studios.



hand tracking interactive!



Paper Birds | 30m

'The morning breeze was my favourite part of the day' declares Toto, a flat-capped boy playing a *bandoneon* (a type of concertina) in this quintessentially Argentinian animation directed by German Heller and Frederico Carlini.

Archie Yates, Edward Norton and Joss Stone star as the voices of Toto and his grandparents Robert and Elsa in this pretty handcrafted stop-motion yarn that slowly and expertly reveals a complexity and mystery of those blue neon birds.

At times tear-jerkingly beautiful, Paper Birds is a two-act play from the perspective of youth and old age. The hand tracking of music and light is as thrilling as the story is profound as you discover portals to an invisible world.



Baba Yaga | 22m

The wild witch of centuries of Slavic folklore, Baba Yaga, fixes her piercing green eyes on two brave young daughters of a sick village chief in this interactive animation from Baobab studios.

Magda (voiced by Daisy Ridley) and Sasha - that's you - must go into the dangerous forest to get the witch blossom cure from the enigmatic old hag (Kate Winslett) to save your mother (Glenn Close).

Yes, it's an all-star cast - and all-female - and although the hand tracking interaction is minimal it is spectacular, from taking a lantern from your sister to unleashing thunderbolts of thorns. There are multiple endings - which path will you chose?

The Line | 20m

A love story between Pedro and Rosa, two miniature dolls on a scale model of 1940s São Paulo. Narrated by Rodrigo Santoro, this Emmy award-winning tale from Brazilian studio Arvore is a showcase hand tracking experience.



more interactive!



Timeboat | 30m-1hr

Hidden within 'The Under Presents' app is Timeboat, a standalone interactive animation that is a cast-iron case of how VR can be mind-blowingly inventive.

Using your virtual golden mask you can toggle between seeing the world in miniature or at human-scale as you ghost around the scenes during the three acts. You can wind time back and forwards and move using 'scrunch' locomotion, essentially warping through space.

In the story itself you go onto a research ship, The Aickman, which lurches into disaster when it gets stuck in an ice floe. On board there's a cast of fully fleshed-out characters for you to eavesdrop on during your own non-linear adventure. Audacious and ground-breaking.



Madrid Noir | 45m

Lola is a distracted young woman, uncomfortable with her unresolved memories. 'These boxes won't unpack themselves,' she says, as you help her rummage in drawers and answer the phone in the former apartment of her dodgy uncle.

Directed by James Castillo, Madrid Noir is a tale in two acts set in the Spanish capital, a night-time *paeen* to a lost era. Sucking on cigarettes in the back streets, doing deals with the shiftiest of bar room buddies, Lola's uncle is up to something.

Reaching back into her memories, she resolves to check it out. In a perfectly honed finale, Lola confronts her past. The majority is played out on a theatrical stage but there's some precious interaction.

Luna | 1-2hs

This beautiful story of the reconstruction of a world that's been blown off-course seems to chime perfectly with the times. Part interactive animation, part game and part meditation, Luna stars a young red Bird who must reawaken a broken planet.



new interactive!



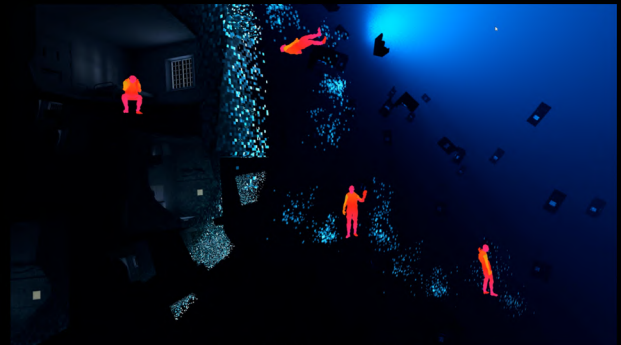
The Secret of Retropolis | 1hr

'Before they were gone, humans made robots to keep civilisation alive. But just like the humans, we turned out to be apathetic and broken.'

This is Retropolis, a city populated by robots like you, Philip Log, a downbeat private detective. 'I love jazz, it makes my drinking seem more sophisticated,' says Philip.

In walks the beautiful blue Jenny Montage, a rich, famous mechanical movie star and your point & click puzzle adventure begins, replete with spring-loaded arms and suitcase inventory.

With a lovingly crafted retro-futuristic art style, this is a witty noir caper from Israeli indie Peanut Button.



Goliath: Playing with Reality | 25m

It's a psychotic episode while DJing at a rave that 'Goliath' realises that he's going 'mad'. The film flips effortlessly from techno, turntables and trippers to a very sparse room in a psychiatric hospital.

Made by London-based Anagram, it's profoundly affecting and doesn't pull any punches. 'My fucking head is just ... fucked,' says Goliath, narrating his own true story along with Tilda Swinton.

A tale of suffering, schizophrenia and salvation via the online gaming world is delivered through mind-warping visuals, minimal interactions and a clever device to hear voices in your own head.

It feels like an important step towards changing how mental health is portrayed.

Nightmara: Episode One | 7m

Cool kid Mara, 11, crosses swords with Mayor Doesgood over little Ned Nimrod in this madcap animated graphic novel from So Meta Studios. There's an alien abduction sitcom complete with canned laughter and a truckload of petit pois.



quillustrations!



Lifetime achievement | 15m

Leaning on the comic traditions and style of Tex Avery and Chuck Jones, this tear-jerker is a riff on the value of presence over presents.

Former Disney animator Yonatan Tal, who set up LA-based Parade Animation, draws on the love for his own mother (he declares as much in the opening credits) as he weaves a fast-paced fable that flies from secret caves in South Indonesia to albino crocodile hunting in Africa.

High-flying French designer Albert - so ritzy that 'Lorenzo is my exclusive gold supplier since 94' - is trying to make the ultimate gift for mama. But will the quiet tea-drinking septuagenarian be impressed?



Tales From Soda Island | 55m

An astonishing series of five Quill shorts from Studio Syro - all set in the strange universe of Soda Island, with smoothie beavers and peace-loving *nekoalas*.

In **The Multiverse Bakery**, a chef bends space-time and cooks from lightening bolts and squirrel acorns. A humanoid *tadpolotl* emerges from the water in **The Neon Jungle** and it's a techno candyland version of 60s cartoon Wacky Races in **The Quantum Race**. In **A Golden Record** a worker ant breaks free with the help of surprise find, and there's magic in the water on **The School Trip**.

It's eye-popping fun. At times fantastically minimalist and always wordless, Soda Island is fizzing with life.

Peace of Mind | 5m

A slightly confused Mr Burrridge enters an austere waiting room where he's told to wait for his 'live dream interpretation experience'. The unseen overworked technician Jason is keen to hurry things along, ignoring his pleas that 'this is not a dream, it's a recurring nightmare!'



more animations!



Ayahuasca Kosmik Journey | 18m

Director Jan Kounen's jaw-dropping Amazon trip begins in the jungle with a shaman sitting in front of you, framed against the roots of a giant tree.

The indigenous healer, from the Peruvian Shipibo-Conibo tribe, begins a meditative chant to take you into a trance-like state - an ancient ritual played out on the most modern of media, and one of the most powerful experiences in VR.

Representing the effects of the hallucinogenic drug ayahuasca, you begin a mesmeric psychedelic journey, with visions of animal spirits from serpents to hummingbirds in the fractal cathedrals. It's not a film to be watched lightly. This 'making of' short can help you decide if you want to take the trip.



Battlescar | 28m

'We are gonna grab Alphabet city by the balls!' As loud, angry and energised as the 1978 New York punk scene it portrays, Battlescar follows two teenage runaways - Puerto-Rican American 16-year-old Lupe and her *blanquita* friend Debbie.

Created by Argentine director Nico Casavecchia, it tilts from cut and paste Sniffin' Glue zine-style to riding on the back of a stolen motorbike in a flash. Words stab the screen. Dark, urgent and edgy, Battlescar takes you on a trip down dangerous alleyways, punk legend Elda Stiletto's squat and the infamous CBGBs.

Rosario Dawson narrates to a backdrop of white guitar noise - and even a little Screamin' Jay Hawkins. Death is certain. And punk was invented by girls.

Rebels | 7m

With just a trusty trumpet against the one-eyed droids, our hero ducks, dodges and parkours his way through a dystopian future. With a battlecry of 'music is our freedom', this *quillustration* builds to a marvellous jazzy release.



art animations!



Dreams of Dalí | 6m

A stone-cold classic must-see, *Dreams of Dalí* is an epic fly-through the trippy surrealism of the Spanish painter.

It begins in the desert as an ant-sized father and child gaze up at two towering praying figures, the scene from his work 'Archaeological Reminiscence of Millet's Angelus'.

Although that painting is the anchor of the film, other iconic elements are introduced – a lobster phone rings under one of the towers, a girl is skipping rope, and the elephants on stilts trumpet under the crescent moon.

With the echoing voice of Salvador himself in English and Spanish, it's an *obra maestra* all of its own.



Le Soleil d'Edvard Munch | 10m

Using the Ganzfeld effect of perceptual deprivation to create 'hallucinations' of colours, this experimental animation attempts to recreate the intensity felt by Edvard Munch on seeing 'The Sun'.

Using frequencies of sound and chromas that cut to white, your brain becomes starved of stimulation and imprints their opposites on the blank canvas.

Munch based his masterpiece on a sunrise on Norwegian coast, re-created here at the start of the film as a slow one-take time-lapse taken from the same spot over a fjord in Kragerø. *French language.*

Warning: This film features an optical technique which might be uncomfortable for some viewers.

Saturnism | 4m

Terrifying animation of Francisco Goya's 'Saturn Devouring His Son'. Directed by Mihai Greco, it's a visceral experience set in a dark and barren landscape of fear and without hope of escape. As hideous as the original.



more art animations!



The Dawn of Art | 10m

Black woolly rhinoceros locking horns, a quartet of horses, arctic musk oxen and a pride of lions. It must have been quite a shock when speleologist Jean-Marie Chauvet stepped into a cave in the South of France in 1994 and stepped back in time by 36,000 years.

The Dawn of Art leads you inside what Werner Herzog has called the cave of forgotten dreams. A bear skull sits where it was carefully placed many, many millennia ago. The giant frescos - humanity's first masterpieces - are some of the oldest drawings in the world.

Narrated by Daisy Ridley, the animals spring from the walls as sparks of fire - animating the originals drawn in charcoal and engraved into the limestone walls.



Dreams of Henri Rousseau | 7m

'I never went to Mexico, that was a lie I told people. In fact I've never been anywhere.'

It's true. Henri Rousseau, famous for his depictions of tropical jungles, never left Paris. His psychedelic inspirations came only from the city's botanical gardens.

The film, directed by Nicolas Autheman, leaves you in the greenhouse of the Jardin des Plantes after closing time and Rousseau's shimmering art begins to reveal itself in the lush foliage.

'I don't feel afraid. There are other spirits in the forest,' the narrator continues. The friendly face of a lion, the black snake charmer, the reclining nude - all figures from his most famous oil-on-canvas painting, 'The Dream'.

Cesare's Dream | 6m

A century on from the expressionist silent film 'The Cabinet of Dr. Caligari', this mixed-media VR homage is still asking the same questions: 'What is a dream, what is reality and who is in control?'



space films!



The ISS Experience: Pt II | 33m

Advance is the second of a four-part series aboard the international space station by the vanguard of VR filmmaking, Félix Lajeunesse and Paul Raphaël.

Rejoining the crew, the film zooms in on the role of women and astronauts Anne McClain and Christina Koch pay tribute to Jerrie Cobb, blocked by Nasa from her own space flight 50 years earlier.

'Science is organised curiosity' declares Anne, as Christina tends to her precious mizuna greens growing incongruously amongst the tech.

The largest production ever filmed in space yields lovely intimate moments and a spectacular upside-down group hug ends with two leaving the mission.



The ISS Experience: Pt I | 28m

A very human look at a very alien environment, Adapt is the first of the four-part series. Floating through a mass of wires, tunnels, tubes and laptops are the four featured astronauts on the 22-year-old 'outpost of humanity'.

'The power of adaptation is one of the most beautiful aspects of the human mind,' declares David Saint-Jacques, as the crew get accustomed to 'micro-gravity' and the disorientation of '16 sunrises and 16 sunsets a day.'

As awe-inspiring images of the Earth pass underneath, the team tuck in to an *amuse-bouche* of brie and chutney and it's the ordinary that calls your attention. The most important place on the \$160 billion station? The bathroom.



The Overview Effect | 6m

The Overview Effect is cognitive shift in awareness reported by some astronauts during spaceflight. This film tries to recreate the effect to stimulate an 'instant global consciousness' and a desire to protect the planet.



more space stuff!



1st Step | 11m

There's just so much to take in. Orbiting and standing on the moon with photo-realistic lunar panoramas based on Nasa data. Crammed inside the tiny capsule with Aldrin, Armstrong and Collins. But it's the phenomenal view of Apollo 11 exiting Earth's orbit from an impossible standpoint that takes the breath away.

A superb narration conveys the enormity of mankind's greatest achievement. With judicious use of genuine crackling audio recordings of the time and clever use of archive footage, 1st step succeeds in transporting you back over a half a century. It's impossible not to be moved.

An incredible piece of filmmaking from Faber Courtial. One of the greatest docs ever made about the moon landings.



2nd Step | 14m

An imaginary journey into the near future, 2nd step takes you to the Shackleton-Crater on the dark side of the moon, flying over the lunar base that will be the jump-off point for the mission to Mars.

One lunar night is equivalent to 14 back on Earth, glimpsed as a fragile blue crescent hanging in the blackness of space.

Orbiting the red planet, you are soon standing with the golden-helmeted astronauts on the surface of the Martian desert, gazing open-mouthed at the edge of the deepest canyon in the solar system.

And in a fantastical finale, the search for a second Earth takes us to an unknown exoplanet, in what would be 'the greatest discovery that man could make'. Epic.

The Spacewalker | 4m

There's a blizzard swirling around the launchpad of the Voskhod 2 rocket as it prepares for blast off in March, 1965. Step into the shoes of Soviet cosmonaut Alexei Leonov as he becomes the first human in history to float freely in space.



even more space stuff!

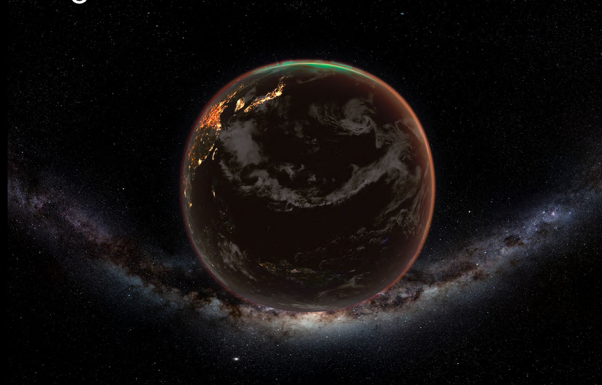


Space Explorers: A New Dawn | 19m

Perhaps it's the Russian-language course that young US astronaut Jeanette J. Epps is taking that best illustrates the post-Space Race world she grew up in.

Unity and co-operation seem a pretty good course of action seeing as the survival of the human race depends on it, as 'either we will have destroyed the Earth or the Sun will have blown up'.

The interview-led narration follows the training of a new class of deep space explorers from being lowered into a swimming pool - sorry, 'Buoyancy Lab' - to flying in the cockpit of a T-38 jet. There's even a moment that you realise that you are watching someone train using VR - in VR. From Felix & Paul.



Space Explorers: Taking Flight | 20m

Beginning on the launch pad of SpaceX, you could be forgiven for thinking this will be a dive into the egos of tech billionaires Bezos, Branson and Musk.

Instead we are soon surrounded by bleating Mongolian camels in the Kazakhstan desert, site of the world's largest space launch facility, to witness various awe-inspiring rockets thunder into the sky.

This episode is mostly narrated by kindly Russian cosmonauts, undergoing training for missions to the International Space Station. The overwhelming message is of civility. Thankfully directors Felix & Paul placed the cameras by the side of, and not on, the centrifuge simulation.

Ørsted Space Safari | 4m

A call to action on the climate emergency narrated by astronauts, the film is micro to macro zoom out from tree level to 100 kilometres above sea level and back. Sponsored by Danish company Ørsted, it ends on their wind farm at sunset.



underwater films!



Immerse | 9m

Poetic, educational and affecting, Immerse is simply the best 360 underwater film out there.

Look right down the mouth of a manta ray, go eye to eye with green sea turtles and dive with shoals of red snappers and grey sharks among the coral reefs of Palau. The film is mixed with exquisite animations of coral polyps and mass coral spawning on the full moon.

It's made by Hydrous, a non-profit which raises ocean awareness and scientific understanding, led by marine biologist Dr Erika Woolsey.

As she says: 'When you see the beauty and the magic of the ocean this closely how could you not want to protect it?'



Polar Obsession | 7m

National Geographic photographer Paul Nicklen traverses 550 miles of the roughest seas in the world to reach Antarctica. 'It's like you are entering this dreamland and the dream is real,' he says.

Floating like a speck amongst the spectacular icebergs, he has a close encounter with a humpback whale before meeting the star of the underwater show - a 12 foot long leopard seal, 'bigger than a grizzly bear'.

After some dramatic threat displays, the seal decides to show just how good he is at catching a penguin.

It's an astonishing and unique hunting sequence captured at the very edge of the South Pole.

AirPano Jellyfish Bay | 3m

From the Russian hi-res film specialists AirPano comes a short but breathtaking dive into a smack of thousands of jellyfish in Raja Ampat, Indonesia. Recorded in 8K by Alexey Tishchenko with a simple musical score.



more underwater films!



Dive Blue Planet VR | 9m

Diver Tiare Boyes narrates in real time as you plunge into the green seas of Canada in search of the world's largest octopus.

In between gulps of air, Boyes directs your gaze with her torch and her patter as she swims through the emerald underwater kelp forest. After pausing to show off an enormous wolf eel, it's time for the star, the Giant Pacific Octopus.

Camouflaged, and at almost 10 metres long, it emerges right in front of your eyes. It's a nocturnal carnivorous predator and as smart as a house cat.

This is classic BBC Natural History Unit writ large in VR. It's a guided safari that even has time for a sea lion cameo, as a young male comes in to have a look.



Dolphin Man: Dive | 6m

'I have a relationship with the depths - cold, dark, vacant, pressure,' says William Trubridge, a quietly-spoken free diver.

Just a lithe body in a wetsuit with no oxygen, he descends vertically into the bluest of Blue Holes, where he's achieved many of his 14 world records.

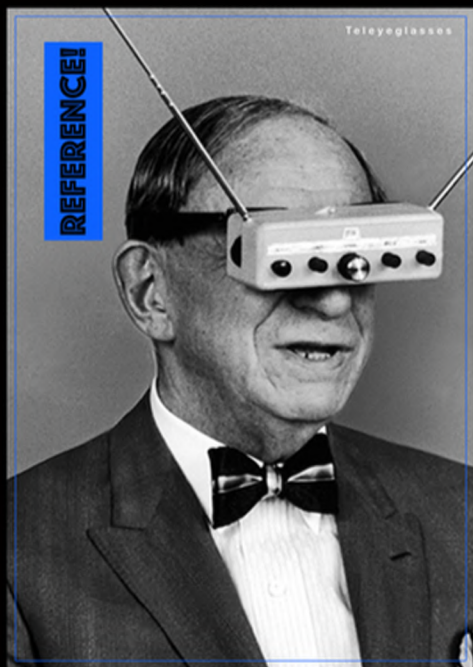
Trubridge has gone eight minutes without breathing and broken through the 100 metre barrier without fins.

Directed by Benoît Lichté, Dive is one of a trio of films with Dolphin Man. Darker and darker, we head into the depths.

'Gases play tricks on your mind, ' he says, as he reflects on the dangers and his own calmness in the face of them. And, breathe.

700 sharks | 7m

A heart-in-the-mouth glimpse at the largest gray reef shark pack in the world in French Polynesia. It's daytime, when the 'wall' of sleek torpedoes remains static, hours before a feeding frenzy to gorge on groupers you can only imagine.



BABY STEPS!

ABSOLUTE BEGINNERS: GETTING STARTED OUT OF THE BOX!


I just got it out of the box, now what do I do?! Turn it on by doing a short press of the button on the right side of the headset. You can turn it off by doing a long press! It'll go into standby on its own.

Download the Oculus app to your phone! You have to pair it with your headset via bluetooth.

Set up your account! The requirement to link to a valid Facebook account is going but not gone. Enter your bank details and you're ready to install apps!

WTF does that mean?! It's an alphabet soup of three-letter acronyms out there! Check out the glossary!

Set up your Guardian boundary! Clear some space in your room and follow the tutorial in the headset. Be careful and aware – don't faceplant the fireplace or tread on your cat!

The Oculus button is your best friend! See that one marked with  ? It's the one that is depressed under the joystick on the right controller. A long press will always re-centre your view and a short press will exit any app back to the menu.

Charging! The green light means it's fully charged (you get about two hours), orange is charging, white in use and red when there's only 10% left. You can leave it charging without damaging the battery.

HAND TRACKING: HOW TO ENABLE, GESTURES AND ADVICE!

Turn it on! Go to settings > device > hands and controllers > and toggle hand tracking on. Point and pinch to select and scroll. Watch the 'hands' video tutorial pre-installed in your apps to learn how to do the basic gestures.

It still feels very much in beta but when it works it's like some kind of freaky magic! It uses the built-in cameras so make sure you have plenty of light and contrast! High Frequency Hand Tracking has improved hand recognition and it's getting better.

'I JUST WANNA PLAY!' GREAT APPS TO GET YOUR FIRST 'WOW'!

Want your first 'wow'?! A great start is the interactive animation **the line**. You don't need to learn how to use the controllers, and you get the magic of seeing your hands! You can play seated or roomscale. Lasts 20 mins.

No, I mean a game! OK, simple controls but high-octane is the cinematic bullet hell of **pistol whip**! For something a little more sedate try the mind-blowing experience of **down the rabbit hole**. Some of the best VR can offer!

HINTS, GUIDELINES, TIPS AND TRICKS

BASICS: LENSES, SAFETY, PASSTHROUGH & IPD!

Look after the lenses! Never leave them exposed to sunlight, even for a few seconds! Never clean the lens with anything but a lens cloth (your t-shirt can scratch them). I keep mine turned away from the window and always have a cloth on hand. Or use a lens protector when not in use.

Covid-19! Use a third-party removable silicon cover and wipe with alcohol 70% if you share the headset. Never use alcohol on the lenses! To avoid irritation wear a sweatband underneath!

Set your IPD! IPD is the distance between your pupils (interpupillary distance). Once you get this dead on, it makes a world of difference - no more blurry edges! It's fixed at 58/63/68mm options on Quest 2, but you can manually force in-between settings. You can use a ruler and a mirror or the quest IPD app on Sidequest.

Passthrough! Enable this in settings > guardian so you can double-tap on the side of your headset at any time. Also useful as your menu background - toggle the 'eye' icon in quick settings.

Setting the boundary! It's a necessary evil but you can make it better. Lower roomscale boundary sensitivity in guardian settings to avoid more immersion killers. Click advanced and you can adjust four levels which trigger virtual walls depending on distance or movement. You can add a couch and a virtual desk in experimental features. You can even switch the guardian off entirely in developer mode - at your own risk!

Headphones! The Quest 2 has built-in audio but nothing compares to plugging in some 3D noise-cancelling headphones for that full immersive experience!

Warm it up! To avoid lens fogging when you start a session, stick the goggles on your forehead to warm them up for five minutes!

Motion sickness! Some people are more susceptible than others. If you are new to VR avoid games marked with this symbol 🌀 until you get your VR 'legs'! Avoid 'smooth locomotion' in games. Look for comfort settings.

e n j o y




HINTS, GUIDELINES, TIPS AND TRICKS

SHARING: RECORDING, CASTING & MIXED REALITY!

Recording video! To record in 16:9 aspect ratio, connect the Quest 2 via USB to your computer, open [Sidequest](#) and go to the tools menu. Change resolution to 1080. Turn full rate capture to On (records in 72fps not 30fps). Note: defaults reset every time you turn off the Quest 2. Turn off the red dot recording light in settings > device > video capture indicator.

Mixed reality! You can now record mixed reality in 3rd person view in a built-in feature on the mobile app (requires iPhone XS). There's also [Liv Connect Beta](#) for iPhone or iPad. For a more professional set up see [here](#).

Screenshots! Shortcut: Hold  and press trigger on either controller!

Casting! It's a bit laggy and often cuts out unless you are on a fast connection. Follow [this](#) guide to set up. Be aware it eats the battery fast!

Multi-user! You can add up to three other Facebook accounts in addition to yours on a single headset. Go to experimental features > multiple accounts and library sharing. Switch between them by clicking on your profile image. Useful to keep game progress save settings apart.

App sharing! Log into two Quests with the same primary account, then turn on app sharing and add a secondary account on one of them. Bingo! Now you only have to buy the game once for both to play. (Not all support app sharing).

FIRMWARE UPDATES: COMMON QUESTIONS!


Monthly firmware updates! Regular releases add improvements and functionality. The updates happen automatically as long as the device is switched on and connected to Wi-Fi.

They roll out slowly at different times across different regions and can take weeks after the official launch date. You might get some new features first before others even on the same update.

Release notes [here](#). Troubleshooting on Reddit [here](#).

What's new! (current build is v35)

Space sense! No more treading on the cat! It can show the outlines of pets or people up to 9 feet away if they have entered your playspace. Go to settings > experimental features > space sense.

Passthrough! Effectively turning the Quest 2 into an AR development kit, this SDK update for Unity enables developers to play around blending VR with the real world! The first apps have launched, look out for this symbol  in the guide!

THE BIG PICTURE

These are exciting times for VR. Only released in October 2020, this graph shows the spectacular rise of the Oculus Quest 2.

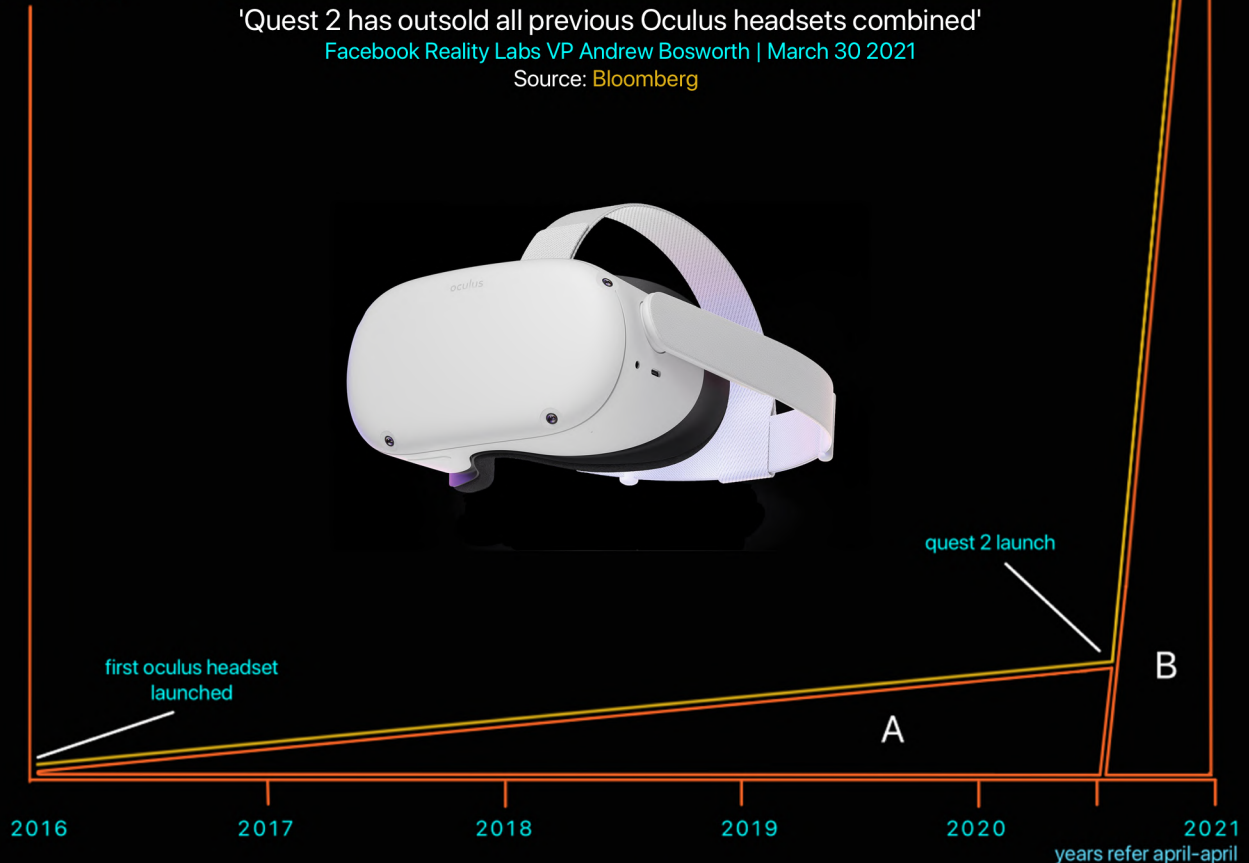
sales in millions
(figures not released)

VISUALISING THE QUEST 2 EFFECT

'Quest 2 has outsold all previous Oculus headsets combined'

Facebook Reality Labs VP Andrew Bosworth | March 30 2021

Source: Bloomberg



Methodology: The volume of triangle B (all Quest 2 sales) must be greater than the volume of triangle A (all previous Oculus sales averaged over time). The time period on the X-axis is known, creating the peak on the Y-axis.

5 MILLION+

Estimated Quest 2 sales.
Official figures not released.

Source: Barron's

1000%

Game sales are up as much as
ten-fold since Quest 2 launch

Source: Cloudhead Labs

\$1.25 BILLION

Latest valuation of gaming
platform Rec Room Inc.

Source: Wall Street Journal

\$180 MILLION

Estimated revenue generated
by a single title - Beat Saber

Source: RoadtoVR

\$10 MILLION+

Revenue earned by six Quest 2
titles. 60 have earned \$1M+

Source: Facebook

10 MILLION

Facebook's sales target for
the Quest 2 is 'on track'

Source: Facebook

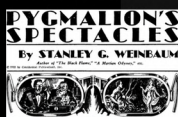
vr timeline

A brief history of VR from 1838 to the launch of the Quest 2 in 2020. Headset (HMD) development is in **green**, cameras in **yellow** and general in **blue**.



1838

stereopsis
stereoscope



1935

pygmalion's spectacles
sci-fi story



1956

sensorama
vr booth



1968

sword of damocles
first hmd



1985

pygmalion's spectacles
sci-fi story



1985



1979

vital helmet
military hmd



1991

virtuality
vr arcade



1995

virtual boy
gaming hmd



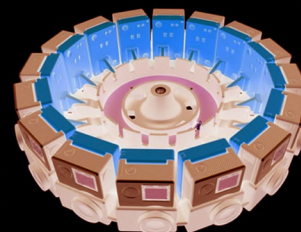
2010

oculus rift
prototype



facebook
buys oculus

2014



multi-camera
rigs

gopro
jump

2015

gear vr
cardboard
phone hmds



standalone
5G glasses

2025?



quest 2

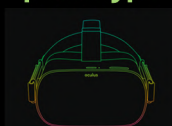
2020



quest

2019

insta360
pro 2
8K pro
cameras



standalone
hmds
go

2018

insta360
one x
5.7K
cameras



tethered
hmds
oculus rift
htc vive
psvr

2016

gear 360
4K
cameras



WTF DOES THAT MEAN?!

GLOSSARY: KNOW YOUR DIORAMAS FROM YOUR PANCAKES!

vr terms | **3dof** (three degrees of freedom) restricted to following head movement like the Go **6dof** (six degrees of freedom) allows free movement with a 3D space, like the Quest 2 **UI** user interface **FFR** (fixed foveated rendering) a way to economise processing power by keeping hi-res in the centre of your vision and lo-res at the periphery without impacting on your ... **UX** user experience! **agency** the ability to act in and influence a vr environment **refresh rate** the higher the refresh rate, the smoother the visual experience. Quest 2 can run at 120Hz **latency** the delay between your action and the headset's reaction **inside-out tracking** the method the Quest 2 uses to map your 3D space using in-built cameras **PCVR** VR tethered to a gaming PC through the oculus link cable or wireless using the **air link** feature **HMD** head mounted display i.e. a headset **FOV** field of view - the Quest 2 is 92° horizontal (compared to our 200° -220° in real life) **XR** cross-reality - industry term for anything VR and ... **AR** augmented reality **LBE** location-based entertainment eg VR arcade **sideload** just copying files to the headset **IP** an original game (from Intellectual Property) **devs** the developers - our heroes!

gamer terms | **FPS** first-person shooter **wave shooter** vr space invaders genre **rail shooter** from a fixed position **jump scare** cheap horror trope **NPC** non-playing character **spawn** the live creation of a game object **god-mode** turns the game into a ... **diorama** interactive miniature **DLC** downloadable content (game add-ons) **sandbox** open-world exploration **melee** close combat **bullet hell** raining projectiles **non-euclidean** impossible spaces **virtual beings** AI artificial people **squeakers** toxic kids **edgelords** rebel fakers **roguelike** turn-based, random dungeon generation, permadeath and hack-and-slash gameplay. Not to be confused with **roguelite** which can be summarised as 'procedural death labyrinths' **pancake** pejorative term for flat non-VR games **gunstock** 3D-printed controller pimping **PvP** player vs player **dojo** training area **asymmetric** VR player against non-VR player **cel-shading** cartoon graphic style **loadout** the weapons you choose to take into battle **mech** stuff to drive **f2p** free to play **QoL** fixes to playability (quality of life) **SBM** skill-based matchmaking (for multiplayer fairness) **nerf** weapon downgrade **buff** weapon upgrade **grinding** do repetitive tasks to gain ... **XP** experience points!

PRIVACY: BIOMETRICS, ANTI-TRUST LAWS AND YOUR DATA

The Quest 2 **no longer requires a facebook account**. You can uncouple from your Oculus account by calling support. German courts are still looking at antitrust violations. See [here](#).

Remember that with inside-out tracking, **the information from the cameras seeing your room is sent to meta**: 'When you set up the Oculus Guardian System we receive information about the play area that you have defined.' That information is unspecified.

Meta also **collects biometric data on your physical features** like your height and hand size; your voice (if not disabled) and your location. For more information, see the Oculus legal documents [here](#).

According to a paper in the respected scientific journal Nature, a simple machine learning model can **identify participants from less than five minutes of tracking data** at above 95% accuracy. See [here](#).

You can **feedback** to Oculus about these or any other issues [here](#).

recording vr

Want to make your own films? A decent kit now costs under US\$1,000 ...



insta360 one x 2
camera | US\$430
5.7K 30fps



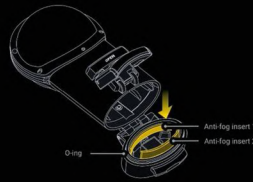
zoom h3-vr
audio | US\$250
spacial audio



manfrotto tripod
accessory | US\$180
reliability



extended selfie stick
accessory | US\$40
10ft telescopic stick
for drone effect



dive case
accessory | US\$80
underwater to 45 meters

Or go pro ...



insta360 pro 2
camera | US\$4,599
8K 30fps

editing vr

You can do it on a phone, I use a mac



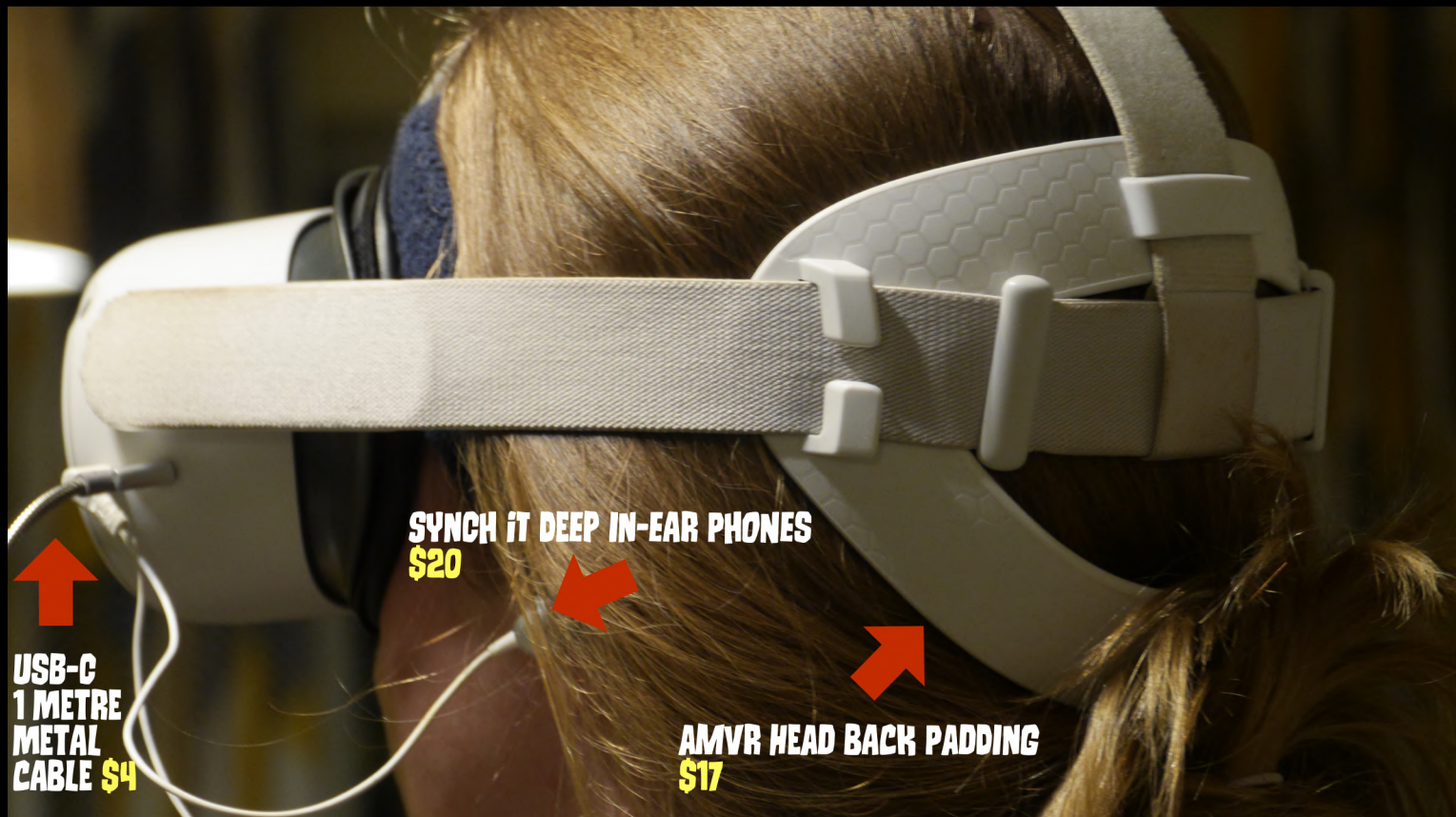
mac book pro
laptop | varies
OSX 10.14+



insta360 studio 2020
app | free
stitching | v3.5.4



final cut pro X
app | varies
editing | v10.4.9



**SYNCH IT DEEP IN-EAR PHONES
\$20**

**USB-C
1 METRE
METAL
CABLE \$4**

**AMVR HEAD BACK PADDING
\$17**

**BONAI 5800mAh
POWERBANK \$23**

VR COVER FACIAL INTERFACE \$35



PIMP YOUR QUEST 2!

MICROFIBRE LENS CLOTH



LENS PROTECTOR



KIT BAGS



SWEATBAND



WARNING! DON'T BUY THE OCULUS ELITE STRAP! IT BREAKS.

A COMPLETE GUIDE TO ALL THE FREE STUFF FOR QUEST 2!

BONUS GUIDE WITH 132 FREE EXPERIENCES!

46 FREE FULL GAMES & APPS!

38 FREE GAME DEMOS!

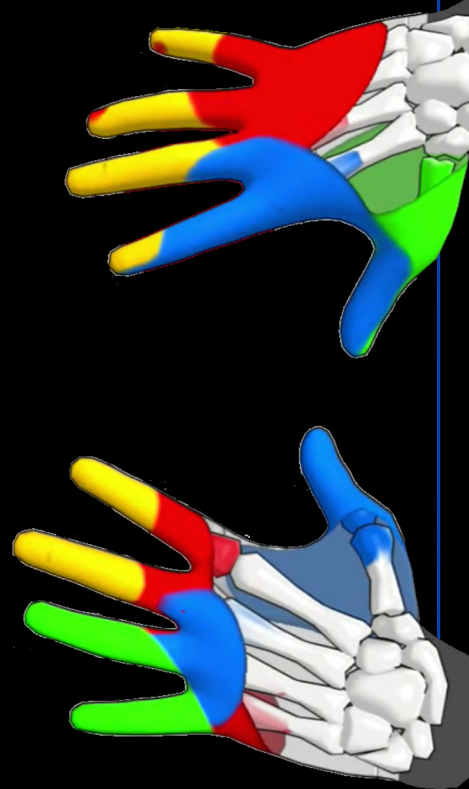
48 FREE FILMS & ANIMATIONS!

READY TO INSTALL RIGHT NOW!

**DOWNLOAD
NOW
FOR FREE!**



SUBSCRIBE! PATREON.COM /GIBBYSGUIDE



FREE STUFF!



FREE STUFF!



CRASHLAND!



IMPOSSIBLE SPACES!



RANKED!



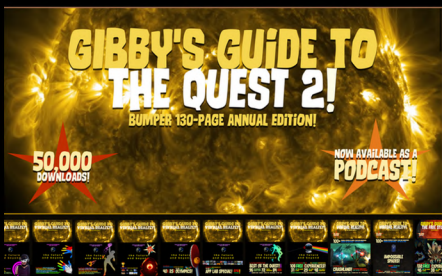
APP LAB SPECIAL!



FITNESS!



HAND TRACKING!



VIRTUAL OLYMPICS!



CHALLENGE CUP!



MAKING MUSIC!



LAUNCH ISSUE!



THANK YOU!

'THIS GUIDE IS THE GUIDE'

'I've never seen a more complete document about VR before!'

'PHENOMENAL AMOUNT OF CURATION'

'It's absolutely amazing. I love to see clear up-to-date guides that work for everyone'

'A+!' 'VERY COOL!' 'GREAT JOB!'

"So comprehensive and saves me hours of looking all this shit up myself!"

'NEVER CEASES TO IMPRESS'

'Love your updates! A great way to recap while I'm doing my own thing'

'WORTH 100 YOUTUBE LISTS'

'I have this 80s feeling of games magazines and it feels good!'

'JUST ... THANK YOU'

'This will help many people to dive into VR!'

Comments by Fabio Hofnik (Hyper); Llyr ap Cenydd (Crashland); Arnaud (Crazy Kung Fu); Ben Outram (Squingle); Yonatan Tal (Parade Animation); Jarek Ciupinski (Tea For God); correctingStupid; ravensergio and other fine Redditors.

Feedback! Please send me yours and any corrections and suggestions to gibby@gibbysguide.org

this is a **BS**-free zone!



MADE IN BRAZIL