



# Varjo Technology

Founded in 2016

<https://vimeo.com/245052714>

# high-resolution VR headset



Also includes external cameras to allow for mixed reality

# foveated vision



mimics the human vision's  
out-of-focus peripheral and  
in-focus center

If the technology executed correctly, high pixel density HMDs will be available without all of the manufacturing challenges of building a continuous high-density HMD

# Implementation of foveated vision

The high-density zone, called the "Varjo Bionic display," features for each eye 1920 x 1080 at 8 bpp, with a 35-degree horizontal FOV

The outer peripheral, or the "context display," runs at a 100-degree FOV 1080 x 1200 at 90Hz and 8bpp.

integrated 100Hz stereo eye-tracking

# Challenges

the displays need to be visually seamless

the displays must have synchronized high refresh rates

Perfect eye-tracking to ensures that the focused high-density region is always at where a user's gaze is.



# Simulation Sickness

1-4

# Requirements and price

CPU: AMD FX 9590, Intel Core i7-6700

GPU: AMD Radeon RX Vega, NVIDIA GeForce GTX 1080

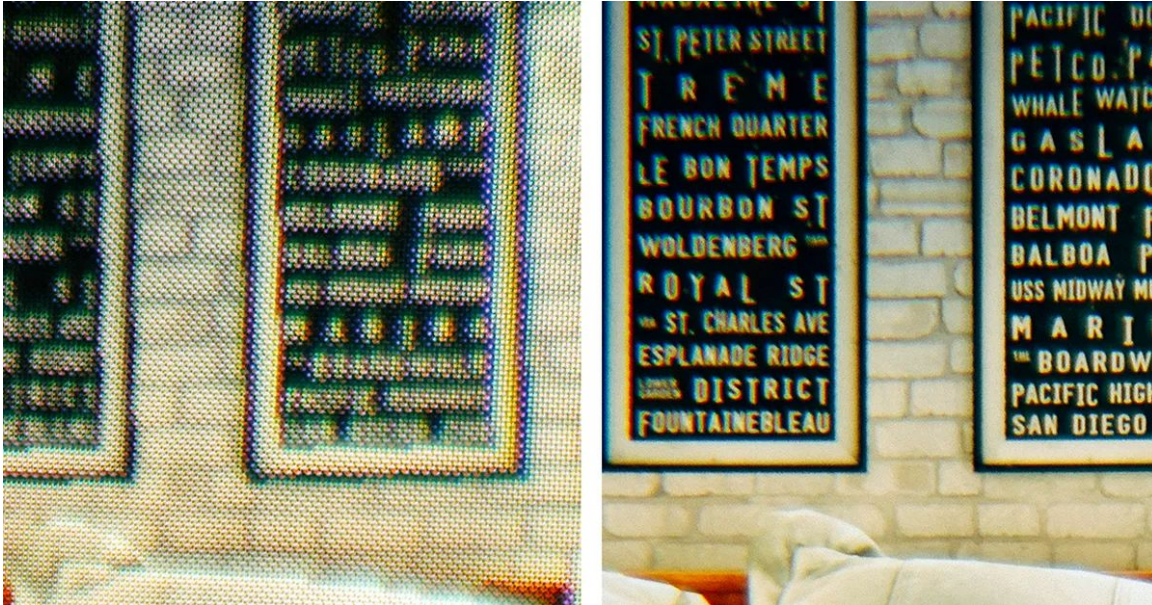
16 GB or more of DDR4 RAM

~\$10,000



# Similar devices

Oculus rift, HTC vive, any other VR headsets



# Targeted consumer base

The Varjo headset is intended for the professional market, and thus is priced for the professional market such as architects, designers, and artists.

# Conclusion

The headset looks good on paper. Price is still unknown, but hopefully it becomes affordable.

