Varjo Technology

Founded in 2016

https://vimeo.com/245052714

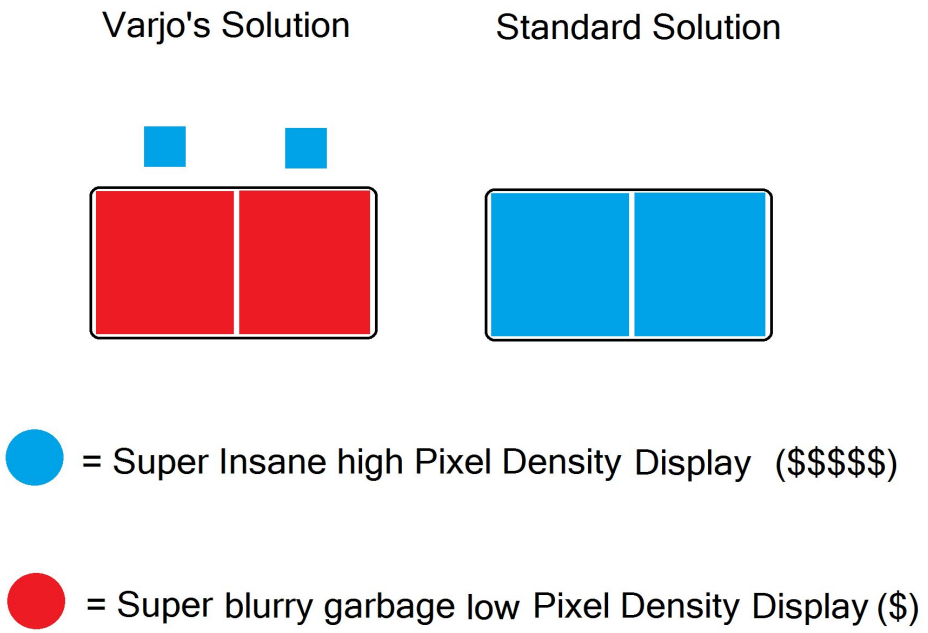
high-resolution VR headset

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 (Alpha Prototype)

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 - 10 (Depends on release Product)

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

Varjo : 20-70 megapixel (effective resolution)

Oculus rift : ~2.5 megapixel (effective resolution)

HTC vive : ~2.5 megapixel (effective resolution)

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 have an ambitious design, have to wait to see the result. Price is still uncertain, but hopefully it becomes affordable for average consumers.