

A Stealth Startup for Better VR?

Written by Marco Attard
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Finnish startup Varjo emerges from stealth mode to present what it claims is a superior VR and AR headset-- "20/20," a headset with supposedly "human eye resolution" of over 70 megapixels per eye.



In comparison, the Oculus Rift and HTC Vive push around 1.2MP per eye. In addition, the headset supposedly mimics how human vision works, with smaller, high-density displays filling the centre of the field of view surrounded by lower-resolution displays at the left and right edges. Eye tracking and software calculate the spot the wearer is focusing on, ensuring the eye is focused on the high-resolution display.

Prototype versions of the headset currently have a high-resolution microdisplay (similar to the OLED microdisplays found in professional broadcast cameras) mounted on top, which in turn is reflected inside the headset via mirror. The eye tracking is not in place as yet, but Varjo promises it will eventually allow for an ultra-clear viewing.

In addition, the headset has video see-through technology promising "unparalleled AR and MR capabilities." This involves the overlaying of rendered objects on real spaces, much like the Microsoft HoloLens or the upcoming Magic Leap. The technology behind it is, so far, vaguely explained, with the company throwing terms such as a "bionic display" and "foveated rendering."

For the curious, Varjo is formed by former Nokia and Microsoft employees, and the name means "shadow" in Finnish. Its first products will be aimed at the enterprise segment, and are slated for a late Q4 2017 release.

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