

VR-1: The only human-eye resolution headset.

Designed for use in complex and demanding industries, Varjo VR-1 is the only human-eye resolution VR device. It also comes with the world's most advanced integrated eye tracking technology and is compatible with a growing list of the most popular 3D software tools, including:

UNREAL®
ZEROLIGHT®

UNITY®
VBS BLUE IG®

AUTODESK VRED®
PREPAR3D®



VR-1

Technical specifications

RESOLUTION AND REFRESH RATE

Bionic Display™ with resolution at over 20/20 vision (over 60 PPD / 3000 PPI), flicker-free screen refresh at 60/90 Hz. Combining 1920x1080 low persistence micro-OLED and 1440x1600 low persistence AMOLED.

COMFORT & WEARABILITY

VR-1 can also be worn by people who wear glasses. It features an active airflow system, adjustable and detachable headband and head strap, comfortable usage with two different sized, easily replaceable face cushions and automatic interpupillary distance (IPD) adjustment for easy and accurate calibration when switching headset users.

EYE TRACKING

Industrial-grade, sub-degree accuracy integrated 100hz stereo eye tracking delivering unmatched accuracy and precision. The 20/20 Eye Tracker™ is made to work seamlessly with the Bionic Display™ to track eye movement in human-eye resolution, even when wearing glasses or contact lenses.

CONNECTIVITY

Thin and light optical fiber cables of 10-meter length with USB-C. Link box for easy connection with PC.

FIELD OF VIEW

87 degrees

COLORS

Infinite contrast ratio (over 10000:1) enabling the deepest blacks and individually calibrated colors, delivering outstanding accuracy and image quality.

TRACKING

VR-1 is compatible with Steam VR™ and ART tracking technology. You can use the Steam VR™ compatible controllers you're already using to get the most out of your device. Please note that Varjo VR-1 isn't currently compatible with Steam VR™ content or the Steam VR™ store.

OPTICS

Dual lens design combining different refractive index lenses for minimal color aberrations, zero ghost rays, and minimal reflections. Each surface coating has been methodically designed to maximize the brightness and clarity of the light fusion needed to achieve human-eye resolution.

MIXED REALITY

Upgradable to XR with Varjo Mixed Reality Add-on, available in 2019.

WEIGHT

605 g (+ headband)

System requirements

The key system requirements for the Varjo headset and related software:

Component	Recommended	Minimum
Processor	Intel Core i7-8700 AMD Ryzen 7 2700	Intel Core i7-6700 AMD FX™ 9590
GPU	NVIDIA GeForce® RTX 2080 NVIDIA Quadro RTX 6000	NVIDIA GeForce® GTX 1080 NVIDIA Quadro P6000
RAM	32 GB	16 GB
Storage space	2 GB	
Video output	2 x DisplayPort 1.2	
USB port	1 x USB-A 3.0	
Operating system	Windows 10 (64-bit)	