



H6 VR Optics Head Mounted Eye Tracking System

The H6-VR module connects to the EYE-TRAC® 6 Control unit for an integrated eye tracking solution in a variety of HMD (Head Mounted Displays). It is designed to quickly and accurately track gaze position on the HMD surface.

The H6-VR can be configured with either our standard 50/60 Hz camera or our high speed optics which track at 120/240 Hz.

We have proven integration with

- Virtual Reality
- nVis
- Cybermind
- Nvision
- Sensics
- Crystal Eye Glasses
- i-o glasses

We offer a complete fabrication shop and would be delighted to discuss specific integrations.

The H6-VR head mounted solution has many advantages:

- Small mirror is attached inside the optics.
- Camera electronics are outside of the head mounted display
- Constant visual feedback throughout entire tracking sessions.
- Automated features with manual overrides for challenging participants.
- A Software Development Kit (SDK), which provides access to the eye tracker controller port, serial out port, and to data files recorded by ASL interface program.
- A standard 15 foot cable connecting the optics to the control unit, with custom configuration available up to 50 feet.



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Optional Equipment

The H6-VR Optics is just one type of optics available with the ASL EYE-TRAC®6 Series. The H6-VR Optics can be configured with a multi-speed high speed camera; with two optics modules for binocular tracking and can also be mounted to a chinrest head restraint.

- H6-VR Optics can be upgraded to incorporate remote optics, long range optics for fMRI, optics for virtual reality HMD's, etc.
- System components and software can be shared among collaborators for greater allocation of time, funding, and resources.

H6-VRoptics can be configured with a laptop or desktop PC.

EYEHEAD™ integration

The H6-VR gaze data can be integrated with head tracking information. The six degrees of freedom head tracking information needed for EYEHEAD™ integration can be captured by many commercially available tracking devices including Intersense, Ascension, Polhemus, NDI (Northern Digital Inc, Advanced Real time Technology, Phoenix Technologies and the list is always growing.

Data is also available to external devices from the real time digital output port.

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Training & Technical Support

ASL is committed to assisting researchers before, during, and after the eye tracking data acquisition. Unlimited technical support and free access to updates on the interface software are available at all times. Multiple licenses of the interface program are available at no additional charge.

ASL offers free scheduled training at our Bedford, MA (Boston) location for the life of the equipment. On site training is also available. Please check out our website for upcoming training sessions.

Technical Specifications	
Sampling Rate	120/240Hz
Gaze Position Accuracy	0.5° - 1°
Tracking Range	50° Horizontal 45° Vertical or more
System Accuracy	0.5° visual angle or less
Resolution	0.1° of visual angle
Technology	Video based Eye Tracking with Bright Pupil illumination
Operating System	Windows XP or later version
System Calibration	Automatic
Transport Delay	
60 Hz	~50 msec
120 Hz	~25 msec
240 Hz	~12.5 msec
Head Tracker	6 DOF Head Tracking