Included 60Hz & 120Hz

PERFORMANCE MEETS EASE OF USE

RED

All-In-One Remote Eye Tracking Solution

➡ **Unprecedented ease of use - No operator experience needed**
➡ **Complete software solution - Ready to go!**
➡ **Award winning design - All-In-One system concept for your mobile eye tracking lab**

iF product design award 2009

Designpreis Deutschland 2010 NOMINEE

www.smivision.com

MONITOR	TV	PROJECTION	DATA RATE	BINOCULAR	ACCURACY	HEADBOX	PORTABLE	CALIBRATION	CHILD CALIBRATION
22"	60"	1-8m	60Hz 120Hz	👁👁	<0,4°	40 40 20 cm		<10s (5point)	👶

Flexible and easy setup

The RED includes a modular design that allows for several different configurations with the same system – from an integrated 22" monitor, to television screens, to projectors. Integrated with the 22" monitor, the system is ready to use out-of-the-box. A user-friendly wizard simplifes standalone setup with other displays.

Accurate binocular gaze & pupil data

The RED uses automatic eye tracking and head movement compensation, utilizing a large working area, with high quality gaze and pupil data to ensure accurate and reliable results.

Robust tracking for all populations

SMI's 20 years of computer vision experience in high-performance research and medical applications has resulted in the most robust remote eye tracking system available. The system is robust regardless of eye color, age, glasses or contacts, etc, and gives immediate feedack of robustness and tracking quality.

Fast, reliable & automatic operation

The fully automatic calibration takes only seconds and maintains drift-free accuracy throughout the experiment. Flexible calibration options address experiment requirements, including 2-point, child-friendly versions.

Award winning design

The functional and subtle design of the RED means that the full attention of the subject and test operator can be on the task itself, rather than on the equipment. This design was awarded with the renowned IF Product design award in 2009.

All results easy to get

The RED system collects all relevant eye data and allows for fast and accurate control and analysis:

- Measures gaze position on surfaces (e.g. screen, TV, projector) in screen pixels or millimeters
- Measures pupil size (relative and absolute dimensions) in pixels or millimeters
- Exports recorded data to ASCII for post-processing using statistics software (e.g. MATLAB®, SPSS®, Excel™)
- Perfectly integrated into SMI Experiment Suite 360°™ for experimental design, presentation and data analysis
- Compatible with EEG systems

Specifications RED

Technology

- Fully automated image processing based contact free eye tracking and head movement compensation

Performance

Sampling rate	60Hz and 120Hz
Tracking resolution	< 0.1° (typ.)
Gaze position accuracy	< 0.4° (typ.)
Operating distance subject - camera	60 - 80 cm
Head tracking range	40 x 40 cm at 70 cm distance
Latency (end to end)	<17ms (typ.): 120Hz <25ms (typ.): 60Hz

System

Workstation	Desktop or Notebook
Monitor	22" widescreen 19" (optional)

Interface

- Modular design that allows different setups with the same system – from an integrated 22" monitor to TV screens up to projections of any size

Auxiliary devices / communication

- User video and audio recording
- Free SDK/API
- Easy integration with third-party stimulus and analysis packages such as MATLAB®, Presentation®, E-Prime®, Superlab™ and others

Software options

- SMI Experiment Suite 360° (incl. BeGaze™2 & Experiment Center™2)

System options

- Flightcase
- Combosystem with iView X HED, Hi-Speed etc.

Norm compliance

- CE, EMC, Eye Safety