

**Extra large tolerance  
for head movements**

# REDn Scientific

Scientific eye tracking studies with ease



- Perfect for fixation based studies, e.g. in developmental psychology and educational research
- Extra large headbox complements superior robustness
- Outstanding accuracy and precision
- Easy interfacing with biometric data collection systems



Dr. Sascha Tamm, Free University of Berlin, Center for Applied Neuroscience:

“ ... With the portable SMI eye tracker we can carry out our studies in real-world environments such as doctors’ offices or classrooms. Because of the open interfaces provided by SMI, we can easily integrate the eye trackers into existing experimental settings for co-registration with EEG or other sensors ...”

## Perfect for fixation based studies, e.g. in developmental psychology and educational research

REDn Scientific is a lightweight and reliable eye tracker that enables researchers to conduct fixation based studies with a new level of ease and robustness.

The device connects to a wide range of PCs and Displays and weighs just 75 grams. It can be taken to all locations like kindergardens, schools, hospitals, workplaces and homes to study participants in surroundings familiar to them.

Together with Experiment Suite Scientific – SMI’s experimental design and analysis software – REDn Scientific constitutes a comprehensive toolbox for a broad range of scientific studies.



## Extra large headbox complements superior robustness

The extra large headbox allows for very natural behavior even of most restless participants.

REDn Scientific is also highly robust for vision corrections (glasses and contact lenses), as well across ethnicities and age groups, providing an extremely broad population coverage.

## Outstanding accuracy and precision

Outstanding precision and accuracy provided by a new generation of eye tracking algorithms ensure reliable results. Based on two decades of experience and the best available technology, SMI REDn Scientific is designed to ensure instant eye tracking in any environment.

## Easy interfacing with biometric data collection systems

Eight TTL inputs allow to reliably synchronize eye tracking data with biometric data sources, such as EEG, either directly, or via a dedicated synchronization hardware such as StimTracker for SMI.

Learn more: [www.smivision.com/rednscientific](http://www.smivision.com/rednscientific)

## Technical specifications

Technology	Fully automated image processing based contact-free eye tracking and head movement compensation
Sampling rate	30 and 60Hz
Eye tracking mode	Binocular and monocular modes. Smart modes available
Gaze position accuracy	0.4°
Spatial resolution (RMS)	0.05° (human)
Calibration	0, 1, 2, 5, 9, 13 points. Smart calibration technology
Operating distance subject - camera	40-100cm
Tracking range (head box)	50 x 30cm at 65cm distance
Interfacing	8 TTL
Operator feedback	Eye images, tracking monitor
Interface setup	Use with monitor or laptop (10"-27")
Operating system	Microsoft Windows 7, Windows 8, Windows 8.1
PC interface / power	USB 3.0
Blink recovery time (max)	16ms at 60Hz
Dimensions (width x height x depth)	30 x 2 x 2cm
Weight	75g
Software compatibility	SMI Experiment Suite, free SMI Software Development Kit (SDK) and all software building on the SDK. SMI SDK allows integration with popular stimulus software (e.g. MATLAB, PST E-Prime®, Python, NBS Presentation®) and custom applications written e.g. in C/C++ and .NET.
Eyewear compatibility	Works well with most glasses and lenses
Norm compliance	CE Declaration of Conformity

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