Tobii X2 Eye Trackers

The world's smallest, most versatile eye tracking system

" The portability and functionality of the X2 allowed us to collect data from participants in isolated rural communities well beyond the reach of our research laboratories."

Amanda Woodward, William S. Gray Professor and Chair,
Department of Psychology at the University of Chicago.

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www.tobii.com

Tobii X2 Eye Trackers

Tobii X2 Eye Trackers are two new revolutionarily small, versatile and more affordable research products powered by our latest generation eye tracking technology.

Tobii X2 Eye Trackers—versatile for a broad spectrum of research

The 30- and 60-Hz modular eye tracking systems expand the options available to you to perform a variety of research anywhere. Determine exactly where people look and study eye movements to gain deeper insights into human behavior.

The small design of the Tobii X2 Eye Trackers makes them the perfect choice for research on a laptop, PC monitor or mobile device, both in and out of the research lab. In addition, high-quality tracking over large gaze angles enables you to study large projections or real-world surfaces.

Our uniquely large head movement tolerance and unparalleled tracking accuracy ensure valid and reliable research results.

Flexibility of software—simplified stimuli presentation and analysis

Tobii X2 Eye Trackers provide the opportunity to work with a range of software – from Tobii Studio™ to compatible software such as E-Prime, Presentation, and Inquisit.

To develop your own applications, use Tobii Analytics SDK >3.0 (Software Development Kit), with MATLAB and Python bindings. At Application Market for Tobii Eye Trackers you can share, download and find information about applications built on the Tobii Analytics SDK.

Tobii Studio – supports your entire workflow

Tobii Studio supports all stages of your research project—from preparation to data collection, analysis and illustration of results, eliminating the need for separate software for different stages or types of studies.

Software versions range from basic live viewing tools to more advanced versions that allow you to calculate standard eye tracking metrics and create visualizations of eye tracking data, based on areas of interest (AOI). Export eye tracking data for further analysis and significance testing in SPSS, Excel or other software.

Adjustable fixation filters are available for eye movement classifications. Use unprocessed (raw) gaze data with or without noise reduction and gap interpolation.

Efficient research

Tobii X2 Eye Trackers are highly compact and portable—ideal for efficient research anywhere.

Step out of your research lab and go where you have easy access to participants in their natural surroundings. Collect eye tracking data in schools, workplaces, clinics, or wherever you find your research population.

Study human behavior in regard to a wide variety of visual stimuli and situations, on-screen or in the real-world. The system can track basically any participant, which means you can keep over-recruitment low.

Tobii X2 Eye Trackers are easy to install and operate, even for beginners such as students. Flush mount the eye tracker on a laptop or all-in-one PC to create a portable lab. With the eye tracker installed and configured, just plug in a single USB cable and you are ready to collect your data.

Tobii X2 Eye Trackers are versatile and one and the same tool can be used for a number of different setups.

> "My decision to go with Tobii was based as much on the unparalleled support they provide as on the technology."
>
> **Nicholas Hall, manager, Behavioral Lab,
> Stanford Graduate School of Business**

Tobii Training and Support—hands-on guidance from a global organization

Tobii hardware and software solutions are always offered together with world-class training and support through our global organization. Our dedicated training, consultancy and support teams come together to deliver a great customer experience. Training resources, webinars and training services are available to help you get started and provide the hands-on guidance you need to perform different types of studies.

To teach students how eye tracking can be applied as a tool to answer research questions or solve business issues, specific package options for both lab and classroom settings are offered that also include support for curriculum development.

Our technical support offices in North America, Europe and Asia provide timely support for customers in all regional time zones.

Classroom equipped with Tobii X2 Eye Trackers.

Data quality assurance

Each new release of any Tobii X2 Eye Tracker is benchmarked according to a comprehensive test method to guarantee top performance.

The Accuracy and Precision Test Method for Remote Eye Trackers comprises a series of extensive tests that identify and control external properties and their impact on the eye tracker's performance. Accuracy and precision is measured and reported under a variety of conditions—from ideal measurement conditions to large gaze angles, different illumination levels and head positions

in the track box. Knowledge about how the system works allows researchers to create the best possible experimental conditions to improve and ensure data quality. Learn more and download test reports at tobii.com.

Tobii also provide access to a calibration verification tool that allows researchers to verify performance for individual participants,

from within or outside Tobii Studio. Immediate feedback about the accuracy and precision of a participant's calibration allows researchers to estimate accuracy errors over a population of participants and outliers can be eliminated before the recording starts, to improve data quality and save time. Learn more and download this tool at tobii.com.

All you need in a single tool

Study anything from phones to large projections with the same eye tracker. Tobii X2 Eye Trackers can be used for numerous setups and studies.

- Flush mount on screens up to 25".
- Track larger screens or surfaces with deskstand accessory or tripod.
- Easy to track phones and tablets with the Mobile Device Stand accessory.
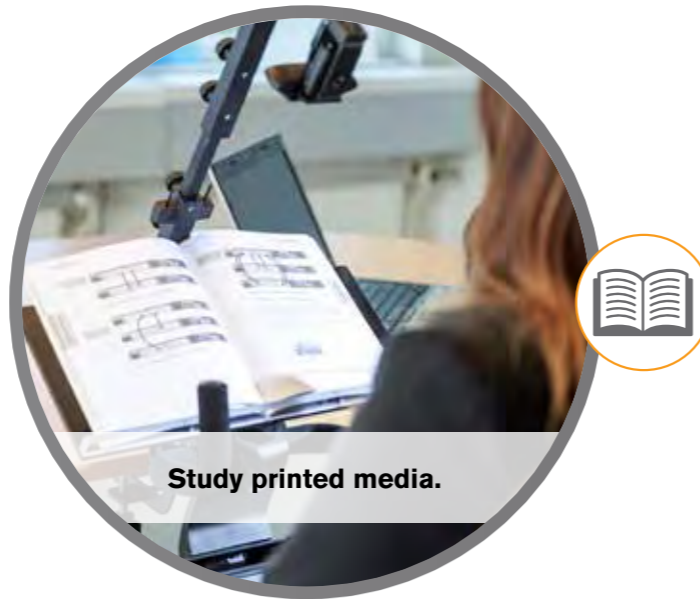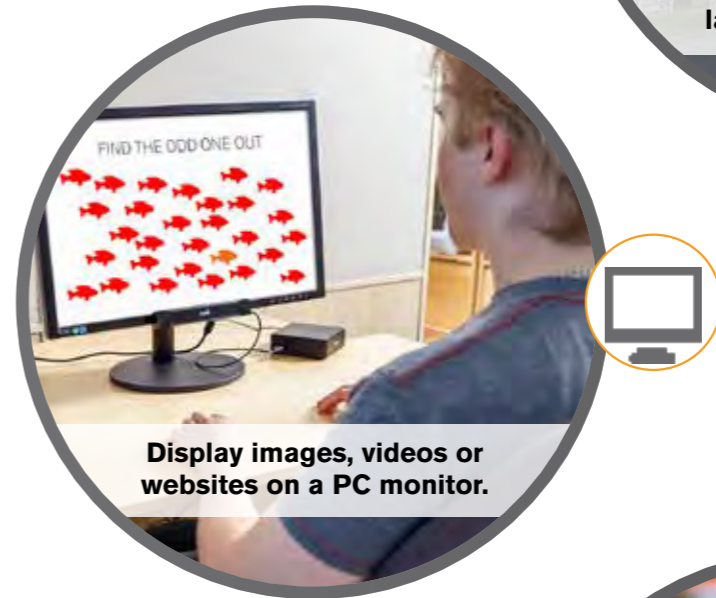
Perform studies directly on a laptop outside the lab.

Study simulated environments or large real-world surfaces.

Study mobile phones and tablets.

Study printed media.

Display images, videos or websites on a PC monitor.

Study interaction with real-world objects.

Study social interaction between people.

Study interactive TV or video games on a larger screen.

Scale 1:1

Tobii technical advantage

Tobii has developed a numberof clearly distinguishable technological innovations that characterize the high performance of our eye trackers, including our Tobii X2 Eye Trackers:

- Dual Sensor Technology enables 3-D vision for truly accurate measurement of the distance from the sensor to the user's eyes. Improves accuracy, precision and tracking robustness.

- Uniquely large track box allows the test participant to move his/ her head freely and naturally during the test session.

- Tobii eye trackers use both dark and bright pupil techniques, with automatic optimization. This means you can track a wide cross section of your population.

Learn more about our technology at tobii.com.

Technical specifications	Tobii X2-30 Eye Tracker	Tobii X2-60 Eye Tracker
Sampling rate	30 Hz (std.dev. ~ 2 Hz)	60 Hz (std.dev. ~ 0.1Hz)
System latency	50 - 70 ms	<35 ms
Freedom of head movement	50 x 36 cm (20 x 14")	50 x 36 cm (20 x 14")
Operating distance (eye tracker to subject)	40 - 90 cm (15.7 x 33.5")	40 - 90 cm (15.7 x 33.5")
Reccomended screen size	Up to 25" (16:9)	Up to 25" (16:9)
Accuracy	See test report*	See test report*
Precision	See test report*	See test report*
Data sample output (for each eye)	Timestamp Eye position Gaze point Pupil diameter Validity code	Timestamp Eye position Gaze point Pupil diameter Validity code

Software and Accessories
Tobii Studio Eye Tracking Software
Tobii Analytics Software Development Kit
Partner software
Tobii Mobile Device Stand for X2

*Tobii has developed a comprehensive test method for measuring eye tracking performance under a variety of experimental conditions. Please refer to tobii.com for the Tobii X2 Eye Trackers' Accuracy and Precision Test Reports.

www.tobii.com