tobii pro/nano

Enter the world of
eye tracking research

Tobii Pro Nano

Tobii Pro Nano is our smallest, most lightweight research grade eye tracker featuring the latest technology from Tobii Pro. Its portability and capacity to track virtually anyone makes it perfect for collecting data efficiently in the field. The system is designed for the study of visual attention in areas like psychology, marketing research and education.

Get started with eye tracking

Tobii Pro Nano is the prefect tool for first-time users who want to study and analyze where someone is looking. The easy-to-use system lets you conduct quality eye tracking studies with minimal effort and investment.

Explore eye tracking as a research method in simple fixation-based studies to build your knowledge on how to analyze visual attention and ultimately gain valuable insights within a broad range of areas.

Teach students how to use eye tracking

Packages are available for equipping universities with portable eye tracking solutions to teach students how to use the technology in different fields. Our experts can help develop curriculums that demonstrate how it can be integrated as a tool to answer research questions and enhance commercial endeavors.

Easily collect data outside the lab

Pro Nano is designed for use with smaller screens providing a compact, fully-portable research solution. Present your stimuli on a Windows laptop or Windows tablet for data collection in authentic research environments. Bring your portable lab to universities, hospitals and public places – wherever your participants are.

The ability to track virtually anyone, as well as the simple setup and configuration, makes the system perfect for running studies efficiently outside the lab.

Tobii Pro Nano:
- attaches easily with supplied mounting plates on various screens.
- offers fully embedded processing of eye tracking data.
- connects via a USB 2.0 port directly to your computer.
- calibrates participants quickly.
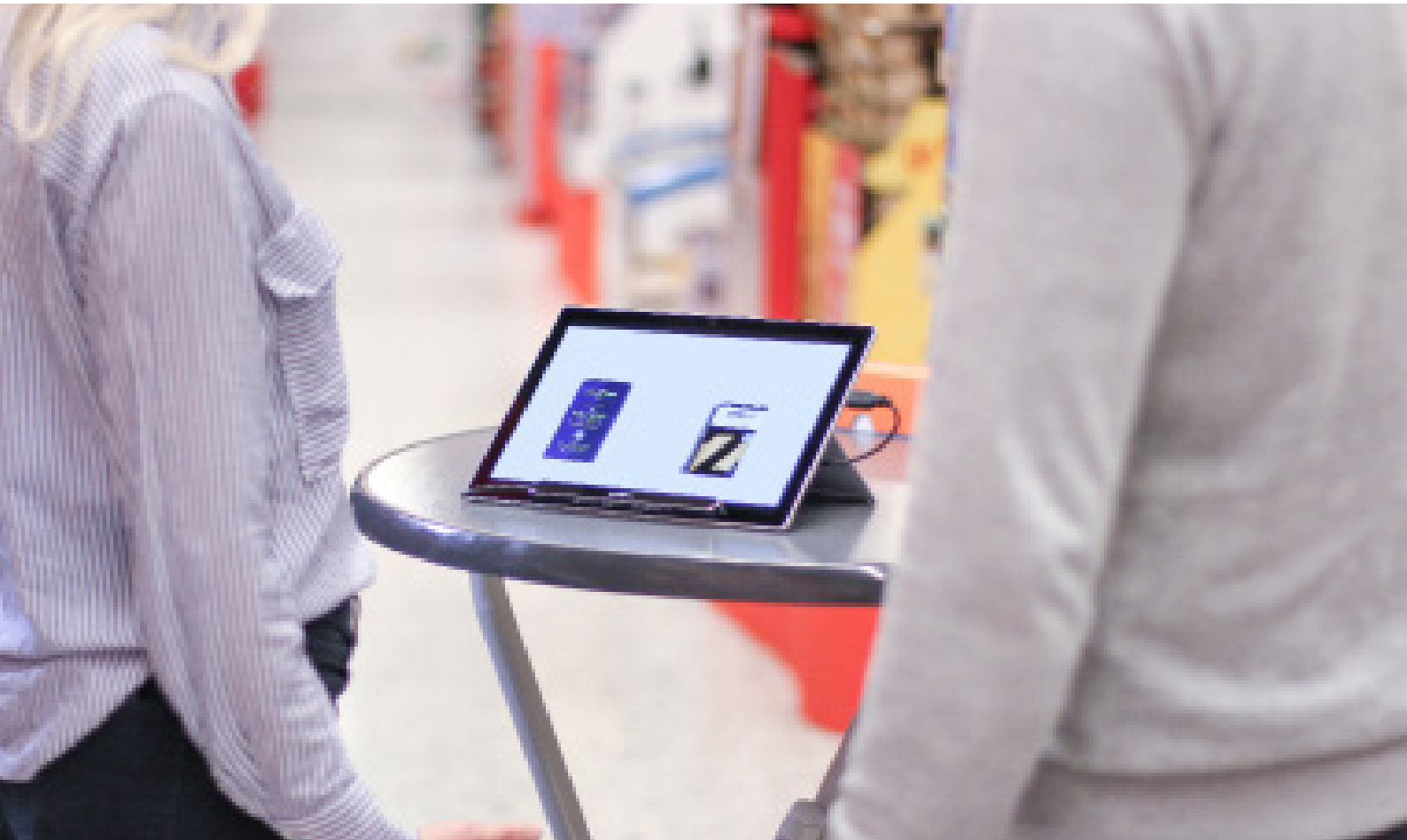
Versatile for many types of studies

Pro Nano works with Tobii Pro Lab, a versatile software platform designed to meet the highest demands of different research scenarios with exact timing accuracy. This software offers an efficient workflow, making it easy to design experiments, record and analyze data, and obtain eye tracking visualizations.

Integrating the Shimmer3 GSR+ Unit, Pro Lab supports combining eye tracking and GSR data, throughout the entire workflow. The ability to send TTL signals on stimulus onset from Pro Lab allows precise synchronization of gaze information with data from other sources such as EEG or ECG.

The Tobii Pro SDK offers a comprehensive toolkit for researchers or partners, who wish to develop their own applications to use with Pro Nano or other screen-based eye trackers from Tobii Pro.

Pro Nano works with Windows laptops and Windows tablets and provides quality data for screens up to 19 inches in size. The system can also be used to study real-world stimuli, such as physical objects or people, which enhances your research opportunities.

Track almost anyone with quality data

The system's very high accuracy and proven vast tracking capabilities in many conditions offers a reliable solution for field tests involving large population samples and teaching contexts.

Key features:
- Extremely robust tracking capabilities, regardless of ethnicity or corrective lenses
- Tolerance for head movements and varied lighting conditions
- Eyes are detected instantly with minimal data loss during blinks or when participants look away
- Pupil data is captured at the same sampling rate as the gaze data

Research graded eye tracker

Pro Nano's high data quality has been confirmed through extensive testing. We use well-documented methods from systematic variations of environmental conditions to a general assessment of the eye tracker's performance within a large sample of individuals. This makes the system suitable for publishing research reports.

Multiple product certifications ensure that quality and user safety requirements are met.

Technical specifications

Eye tracking specifications

Eye tracking technique	Video-based pupil- and corneal reflection eye tracking with dark and bright pupil illumination modes. One camera capture images of both eyes for accurate measurement of eye gaze and eye position in 3Dspace, as well as pupil diameter.
Sampling frequency	60 Hz
Precision[1]	0.10° RMS at optimal conditions[2]
Accuracy[1]	0.3° at optimal conditions
Binocular eye tracking	Yes
Total system latency	1 frame (17 ms)
Blink recovery time	1 frame (immediate)
Gaze recovery time	250 ms
Data sample output[3]	Timestamp Gaze origin Gaze point Pupil diameter
Eye image data stream	Not available
TTL input stream	Not available
Tracker and client time synchronization	Integrated between the eye tracker time domain and the client computer time domain.

[1] Tobii Pro uses an extensive test method to measure and report performance and quality of data. Please download the Data quality test report for more detailed information.

[2] Using built in filtering

[3] For the complete list of available data and the supplementary data stream, download the Pro SDK documentation from Tobii Pro's website.

Software and framework compatibility

Software and framework compatibility	Tobii Pro Lab Tobii Pro Eye Tracker Manager Tobii Pro SDK Any application built on the Tobii Pro SDK
Operating system	Windows, Mac

Setup

Head movement tolerance	Good – One-camera system, gives an accurate calculation of the data and a good level of precision. More sensitive for head movement than the dual camera systems.
Freedom of head movement[4] (at 65 cm distance)	Width x height: 35 cm x 30 cm (13.78'' x 11.81'') (At least one eye tracked)
Freedom of head movement[4] (at 80 cm distance	Width x height: 45 cm x 45 cm (17.7'' x 17.7'') (Shape circular with at least one eye tracked)
Operating distance (mounted on screen)	45 to 85 cm (18 to 33'') from the eye tracker
Tracker setup options	Tracker mounted at tripod, allows for even larger screens or physcial objects to be tracked.
Optimal screen size	Up to 24''[5]

[4] Describes the region in space where the participant can move his/her head and still have at least one eye within the eye tracker's field of view (trackbox) at the specific distance.

[5] For large screens, the limiting parameter is the quality of the gaze accuracy at the upper corners of the screen when the user sits close to the screen.

Hardware versions

	60 Hz

Eye Tracker Unit

Dimensions (L x H x W) in cm/inches	17 x 1.8 x 1.3 (6.69" × 0.71" × 0.51")
Weight	59 g (2.1 oz.)
Connectors	Tobii EyeChip™ with fully embedded data processing.
Eye tracking cameras	1
Illuminators	Dark pupil Illumination Modules, Bright pupil Illumination Modules
Power consumption	Typical power consumption: <1.5 W Max. rated power consumption: 6 W
Power options	Directly via USB 2.0 Type A

Scale 1:1

Tobii Pro provides eye tracking research solutions and services designed to deepen understanding of human behavior. Headquartered in Sweden, with local teams active on six continents, we help business and science professionals to further their research.

tobiipro.com
sales@tobii.com

tobii pro