tobii pro /X3-120

The Tobii Pro X3-120 is our latest screen-based eye tracker with a sampling rate of 120 Hz. Designed for exhaustive, detailed fixation-based research this ultra-slim powerful research system features our latest eye tracking technology advancements and makes it possible to track more people than ever.

Fully-mobile, powerful for detailed research

The Pro X3-120 provides exceptional flexibility and accommodates a wide array of human behavior studies. The ultra-slim, light design makes for a compact unobtrusive solution, ideal for studies outside of the lab. The Pro X3-120 is capable of tracking more people than ever before.

The system shows exactly where people are looking and, with a sampling rate of 120 Hz, it is designed for detailed research into the timing and duration of fixations. The Pro X3-120 is perfect for both qualitative and quantitative research, e.g. calculation of different eye tracking metrics.

Versatile for a broad spectrum of studies

The Pro X3-120 can be used with a variety of screens – laptops, PC monitors, tablets, or TVs.

The system can be mounted on screens up to 25" in size. We offer accessories in order to make research with mobile devices easier. The Pro X3-120's high-quality tracking of large gaze angles (up to 36°) allows you to also study large projections.

There are additional accessories to accommodate studies of real-world stimuli, such as physical objects or people.

Easy to use

Simple setup, configuration, and automation promote efficient eye tracking studies.

- Attaches easily with supplied mounting solutions for various screens
- Works in a controlled environment using the supplied external processing unit or connects directly into your PC (using a USB 3.0 cable)
- Simple configuration for Windows 7 and 8.1
- Supports Mac OS X and Linux using the external processing unit
- Calibrates subjects quickly and automatically

Envision human behavior

Captures natural behavior

Subjects can be tracked while moving their head freely positioned at a natural distance from the screen, and the device is hardly noticed. This creates a distraction-free test environment, promoting natural human behavior.

- Tolerates a variety of head movements
- Collects highly-accurate data at close distances, such as a laptop, to longer distances, such as an ATM
- Blends perfectly into the research environment with its ultra-slim, discreet design
- Stable and reliable eye tracking calibrations eliminate the need for recalibration

Accurate and robust tracking

The system's exceptionally-high accuracy and unparalleled tracking capability in real-life conditions ensure high-quality data while allowing you to work with a wide cross-section of your population.

- Delivers exceptionally accurate gaze-position data within the entire tracking box
- Tracks more people than ever before, regardless of ethnicity or corrective lenses
- Detects eyes instantly with minimum data loss during blinks or if subjects look away
- Maintains accuracy and tracking robustness during subjects' head movements and in ambient light
- Alternates between bright and dark pupil eye tracking in a predefined, systematic way

Technical Specifications

Eye tracking specifications	
Gaze sampling frequency	120 Hz
Accuracy	0.4°
Precision (RMS)	0.24° *
Freedom of head movement • width x height • operating distance	50 x 40 cm (19.7" x 15.7") @80 cm 50-90 cm (19.6" – 35.4")
System latency	<11 ms
Gaze recovery time	For Blinks: immediate After lost tracking <100 ms
Recommended screen size	Max 25"
Tracking technique	Binocular, automatic altering in a sequential illumination mode (BP/DP/DP)
Data sample output for each eye	Timestamp Eye position Gaze point Pupil diameter ** Validity code

Eye tracking unit	
Dimensions	324 x 20 x 17 mm (12.7 x 0.8 x 0.7")
Weight	118 g (4.2 oz)
Processing	On local PC or EPU ***
CPU load	12-20% on iCore5 laptop
Power input / Connectors	USB 3.0 (battery charging 1.2), LAN with EPU ***

Dynamic illumination pattern compensation is applied

** Pupil information will be included in bright mode only, e.g. sampling at lower frequency

*** EPU, e.g. External Processing Unit

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.

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