# Tobii Pro Spark



# Enter the world of eye tracking

A powerful screen-based eye tracker, capturing gaze data at 60 Hz. Tobii Pro Spark offers robust and reliable data at an affordable price, bringing eye tracking insights to more people and serving more fields of application. The solution is designed to empower educators, psychologists, commercial researchers, and computer scientists with a fully supported and versatile eye tracker.

#### **Key features**

- · Sampling rate of 60 Hz designed for fixation-based research
- · Connects via a USB port directly to your computer
- · Offers fully embedded processing of eye tracking data
- Works on screens up to 27" in size
- Works regardless of corrective lenses
- Demonstrates robust tracking regardless of ethnicity or age
- Tolerance for head movements and varied lighting conditions
- · Minimal data loss during blinks or when participants look away

#### First eye tracking steps made easy

Whether you are applying for limited research funds or taking your first steps in eye tracking research, affordability is paramount. Tobii Pro Spark is easy-to-use and puts eye tracking within reach for countless researchers looking to enhance their research.

### Track. Teach. Learn. Move the world further

- Teach students how to use eye tracking. Packages are available to equip universities with portable solutions, allowing them to teach students to use eye tracking in various fields.
- Improve education and learning through attention data. Test the efficiency of instructional materials and use the knowledge to enhance the learning process of your students.
- Tobii Pro Spark is an eye tracker for scientific researchers who want to understand visual attention on a deeper level. Tobii Pro Spark's portability and robustness makes it perfect for collecting data both in the field and the laboratory.
- Level up your software development, image processing, or human-computer interaction with real-time eye tracking data streams.

#### All-in-one research solution

This is our smallest eye tracker, with advanced data streams and a sampling rate of 60hz. Supported by Tobii Pro Lab and Tobii Pro SDK, it has the power to capture high-quality attention data. With Tobii Academy, Tobii Connect, and our customer care, you have a completely supported research solution.

#### Portable and easy to use

The manageable size and carrying case make it easy to pack up and go. Fully embedded processing and easy-to-connect via USB or USB-C, with no additional power supply needed. This single-camera eye tracker functions on screens up to 27" and is compatible with all platforms, including Windows, Mac, and Linux.

#### **Robustness and quality**

No matter which eye tracker you choose, accuracy and reliability are our top priorities. Tobii Pro Spark is no exception, offering robust tracking capabilities regardless of corrective lenses or ethnicity. We also guarantee high tolerance of head movement under various lighting conditions, and tracking is resumed quickly if the participant looks away.



#### **Technical specifications**

Eye tracking technique	Video-based pupil- and corneal reflection eye tracking with dark and bright pupil illumination modes. One camera captures images of both eyes for accurate measurement of eye gaze and eye position in 3D space, as well as pupil diameter.
Sampling frequency	60 Hz (default) or 33 Hz
Precision	0.26° RMS (ideal conditions) *
Accuracy	0.45° (ideal conditions)
Binocular eye tracking	Yes
Eye tracker latency	1 frame (immediate)
Blink recovery time	1 frame (immediate)
Gaze recovery time	50 ms
Data sample output	Timestamp Gaze origin Gaze point Pupil diameter
Tracker and client time synchronization	Integrated between the eye tracker time domain and the client computer time domain.

#### \*Using built in filtering

For more information about output data and the supplementary data stream, please read the Tobii  $\mbox{Pro}$  SDK documentation.

Set up	
Freedom of head movement* (at 50 cm distance)	Width x height: 20 cm x 20 cm (7.9" x 7.9") (At least one eye tracked)
Freedom of head movement* (at 65 to 80 cm distance)	Width x height: 35 cm x 35 cm (13.8" x 13.8") (At least one eye tracked)
Operating distance (mounted on screen)	45 to 95 cm (29" to 37") from the eye tracker
Optimal screen size	up to 27"

\* Describes the region in space where the participant can move their head and still have at least one eye within the eye tracker's field of view (trackbox) at the specific distance.

Software 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, macOS, Linux

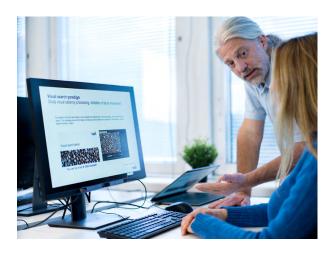
#### Hardware versions

Single product version: 60 HZ

#### **Tobii Pro Spark specifications**

Dimensions	285 x 15 x 22 mm (11.2" x 0.59" x 0.47")
Weight	97 g (3.4 oz.)
Connectors	USB 2.0 Type-A, 80 cm (30") cable (USB Type-C male to Type-A female adapter included in the package)
Illuminators	Dark Pupil Illumination Modules Bright Pupil Illumination Modules

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