Pro Glasses 3 Product Description



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Table of Contents

	_
1 Introduction	
1.1 Intended use	5
1.2 Documentation	. 5
1.3 Symbols used in this document	
•	
2 System Overview	
2.1 Pro Glasses 3 packages	
2.2 System components	
2.3 Head unit	8
2.4 Recording unit	. 10
2.5 Pro Glasses 3 controller application	
2.6 Optional accessories and software	
-	
3 System Requirements	
3.1 Pro Glasses 3 controller application requirements	
3.1.1 Android compatibility	. 13
4 Technical Specifications	14
4.1 Eye tracking	
4.2 Head unit	
4.3 Recording unit	
4.4 Corrective Lenses (optional)	.15
5 Safety	.16
5.1 General precautions	16
5.2 Usage warning	
5.3 Emergency	
5.4 Child warning	
5.5 Infrared warning	
5.6 Photosensitivity/epilepsy warning	17
5.7 Mechanical shock	
5.8 Bending	
5.9 Do not open or disassemble	. 18
5.10 Connectors	. 18
5.11 Head unit cable	18
5.12 Environment	
5.13 Component connection safety	
5.14 Battery safety	
5.15 Wireless warning	
5.16 Transportation	
5.17 Accessories	
5.18 Cleaning	
5.19 California Proposition 65 warnings	.21
6 Compliance	.22
6.1 EU Compliance	
6.1.1 Conformity with EU directives	
6.1.2 CE marking	
6.1.3 WEEE marking	. 22

6.2 United States and Canada compliance	
6.2.1 FCC interference and Industry Canada statement	
6.2.2 ETL compliance	
6.2.3 UL compliance	
6.3 Electromagnetic compatibility compliance	
6.4 Safety compliance	
6.5 China compliance	
6.6 Japan compliance	
6.7 Korea compliance	
7 Product Care	25
7.1 Operational environment	
7.2 Transportation	
7.3 Storage	
7.4 Cleaning	
7.5 Disposal of the eye tracker	
Appendix A Support, Training, and Warranty	
A1 Cost belo online	
A1.1 Get help online	
A2 Training and Education Services A3 Warranty information	
•	
Appendix B Limitations and considerations	
B1 Intended use	
B2 Light conditions	
B3 Eyelashes	
B4 Droopy eyelids	

1 Introduction

Tobii Pro Glasses 3 is designed to enable easy, precise, and efficient collection of eye tracking data in a wide variety of research scenarios. The discreet, ultra-lightweight design ensures natural behavior and research validity in both qualitative and quantitative situations. Accurate data and robust eye tracking capabilities can be relied on in uncontrolled situations and real-world environments.



1.1 Intended use

Tobii Pro Glasses 3 is a wearable eye tracker for academic, commercial, and industrial use for the capture of truly objective and deep insights into human behavior in a real-world environment. Pro Glasses 3 is designed to capture what the wearer is viewing while providing robust and accurate eye-tracking data. The complete Pro Glasses 3 product package consists of a head unit, a recording unit, and the Tobii Pro Glasses 3 controller application installed on an external device.

The product should only be used as described in the Pro Glasses 3 User Manual. Please read the User Manual and other supplied documentation thoroughly before using the product.

This product is continuously being developed and refined. Visit <u>Tobii Pro Connect</u> for the most recent specifications for Pro Glasses 3 and for the latest version of this document.

1.2 Documentation

Further documentation is available for viewing and download on <u>Tobii Pro Connect</u>. The following documents are available:

- Pro Glasses 3 Product Description
- Pro Glasses 3 Field Guide

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- Pro Glasses 3 Safety and Compliance
- Pro Glasses 3 Developer Guide

1.3 Symbols used in this document

Three different symbols are used in this document:

The Information symbol means something is important or needs special attention.

The Tip symbol denotes additional information that can make a process or function easier.

The Warning symbol means there is a possible risk of harm if the warning is ignored.

2 System Overview

2.1 Pro Glasses 3 packages

Pro Glasses 3 is sold in four different packages. The table below details the specific features available in each package.

Components	Pro Glasses Cabled 50	Pro Glasses Cabled 100	Pro Glasses Wireless 50	Pro Glasses Wireless 100
Pro Glasses 3 controller application	•	•	•	•
50 Hz	•		•	
100 Hz		•		•
WLAN functionality			•	•
Basic support	•	•	•	•

2.2 System components

The Pro Glasses 3 system is comprised of the head unit, recording unit, and the Pro Glasses 3 controller application. Each component is briefly described below. In addition, Tobii Pro Lab software (purchased separately) can be used for further analysis of eye tracking data.

The Pro Glasses 3 system:

- 1. The head unit, comprised of wearable eye tracking glasses.
- 2. A recording unit, connected to the head unit via a head unit cable. The recording unit holds the battery and stores the recorded data on a SD card. The recording unit is controlled from a device running Pro Glasses 3 controller application.
- 3. Pro Glasses 3 controller application is used to manage the participants, start and stop recordings, as well as to view real time and recorded video and eye-tracking data.



Pro Glasses 3 controller application is designed to be installed and used on specific operating systems and processors. The application should not be installed on any other type of devices

4. A computer running the specified operating systems; or an Android device running version 9 or later; with Pro Glasses 3 controller application installed.

Pro Glasses 3 controller application connects to the eye tracker through an network connection (either wireless or wired).

5. Tobii Pro Lab (purchased separately) installed on a Windows computer. Any eye tracking analysis beyond qualitative analysis of eye tracking session replay, is carried out using Tobii Pro Lab.



The Pro Glasses 3 controller application is designed to be used only with Pro Glasses 3. No other type of eye trackers can or should be used together with the Pro Glasses 3 controller application.

2.3 Head unit

The head unit is a highly sophisticated measuring device. It consists of several very sensitive sensors and must be cared for correctly. For more information, read Product Care.

The head unit consists of the following parts:



Part	Description
1. Infrared illuminators (x 8 per	Illuminates the eyes to assist the eye-tracking sensors
eye)	
2. Head unit cable	Connects to the recording unit to save collected data
3. High-definition scene cam-	Captures a Full HD video of what is in front of the participant
era	
4. Microphone	Picks up sounds from the participant and their immediate sur-
	roundings
5. Eye-tracking cameras (x 2	Records eye orientation and movements
per eye)	
6. Accessory attachment	Used to attach some of the optional accessories, for example
	the Safety Lens
7. Nose pad	Additional nose pads can be used to change sizing

2.4 Recording unit

The recording unit is a small computer that controls the head unit. It records and stores eye-tracking data, sounds, and scene camera video on a removable SD card. The recording unit carries a replaceable and rechargeable Li-ion battery that supplies power to both the recording unit and the head unit. The recording unit has several connectors and a power button and is controlled from Pro Glasses 3 controller application.

The recording unit consists of the following parts:



Part	Description
1. Head unit con- nector	Connects to the head unit cable
2. Micro USB con- nector	Connects to USB charger for powering the unit and charging the battery
3. 3.5 mm con- nector for data syn- chronization	TTL pulse for synchronization with external data sources
4. Power button and LED power indicator	Touch button that turns the recording unit on and off. LED power indicator indicates power state and remaining battery power
5. SD card Activity LED	Indicates if SD card is present and if the recording unit is currently sav- ing data to the SD card
6. Connection status LED	Indicates connection to the head unit.

7. LAN port	Connects to a device running the Pro Glasses 3 controller application, via the supplied Ethernet cable. The recording unit can also be connected to a device via WLAN*.
8. SD card slot	Slot for SD card
9. Belt clip	Attaches the recording unit to participant's belt
10. Battery com- partment	Holds the Li-ion battery

* Not available in the Tobii Pro Glasses 3 Live View Package

The Pro Glasses 3 package contains an external SD card reader for use with computers that are not equipped with an internal SD card reader. For installation instructions, see the documentation in the SD card reader's package or the manufacturer's website.

2.5 Pro Glasses 3 controller application

The Pro Glasses 3 controller application software is used to manage participants and recordings made using the recording unit. It can perform the following functions:

- Add participants
- Manage recordings
- Live view of ongoing recordings
- Instant replay of recordings
- One point calibration

2.6 Optional accessories and software

The following optional components can be added to the Pro Glasses 3 system. Learn more on tobiipro.com.

Component	Description
Corrective Lenses	Snap-on corrective lenses for Tobii Pro Glasses 3 used with people who wear prescription lenses. The Corrective Lenses accessory for Pro Glasses 3 is a set of attachable lenses to correct both nearsightedness and farsightedness. This accessory allows you to include a larger cross-section of the population in your research.
Protective Lenses	This accessory package contains two lenses, clear and tinted, to protect Tobii Pro Glasses 3 from damage in challenging situations and to support research in bright environments.
Motion Cap- ture Marker Set	Combine Tobii Pro Glasses 3 with motion capture systems and study the links between attention and movement.

Optional software for Pro Glasses 3

Tobii Pro Lab ¹	Pro Lab is a comprehensive research software plat- form for eye tracking designed to meet the highest demands on different research scenarios with exact timing accuracy. This software offers an efficient work- flow, making it easy to design experiments, record data, analyze and visualize eye tracking data, and to sync this data with other biometric data streams
	sync this data with other biometric data streams.
Third-party software	This term refers to any application built on Pro SDK.

¹Tobii Pro Lab may have different system requirements than Pro Glasses controller application.

3 System Requirements

3.1 Pro Glasses 3 controller application requirements

Operating	Windows® 10 Windows 10 64-bit Professional or	Android [™] OS version 9 or
system	Enterprise, version 2004	later
	or	
	Mac OS 11 (Big Sur)	
Processor	Intel® Core™ i5 dual core or later	Snapdragon 835 (8
(CPU)	or	cores, 2.0GHz) or equi-
	Intel Core i-series	valent
Memory	8 GB RAM (Windows & Mac)	6 GB RAM



Tobii Pro Lab and other software may have different requirements. Read more about Tobii Pro Lab.

3.1.1 Android compatibility

There are many different kinds of Android devices, with a wide range of hardware configurations. Most devices that meet the minimum requirements should work with the Glasses 3 controller application but Tobii Pro cannot guarantee it.



To connect using a cable or a router, Pro Glasses 3 controller application can not be used with an Android device.

The following table lists the Android devices Tobii Pro has tested and verified will work.

Manufacturer	Device
Samsung	Galaxy Tab S5e
Samsung	Galaxy S10
Google	Pixel 4 XL

4 Technical Specifications

4.1 Eye tracking

Eye tracking technique	Corneal reflection, dark pupil, stereo geometry
Binocular eye tracking	Yes
Sampling rate	50 Hz or 100 Hz
Calibration procedure	One point
Accuracy	0.6°
Parallax compensation tool	Automatic
Slippage compensation	Yes, 3D eye tracking model
Pupil measurement	Yes, absolute measure
Gaze recovery time	1 frame (immediate)
Blink recovery time	1 frame (immediate)

4.2 Head unit

Material	Grilamid plastic, stainless steel, optical grade plastic
Nose pad	Grilamid plastic, with clip on attachments
Scene camera, video resolution	1920 × 1080 at 25 fps
Scene camera, video format	H.264
Scene camera, field of view (diagonal)	106 deg. 16:9 format
Scene camera, field of view (hori- zontal and vertical)	95 deg. horizontal / 63 deg. vertical
Weight	76.5 grams including cable
Frame dimensions (width ×depth ×height)	153 ×168 ×51 mm
Cable length	1200 mm
Audio	16 bit mono, integrated microphone
Design characteristics	Light weight and discreet
Number of eye tracking sensors	4 sensors (2 per eye)
Fixed geometry	Yes
Sensors	ST™ LSM9DS1 sensors: Gyroscope and Accel-
	erometer (sampled at 100Hz); Magnetometer:
	(sampled at 10 Hz)
Input voltage and current rating	5.5Vdc max, 0.5A

4.3 Recording unit

Battery recording time	105 min.
Battery type	Rechargeable 18650 Li-ion, Capacity: 3 400 mAh
Storage media	SD (SDXC, SDHC) card

Connectors	Micro USB, RJ45 (Ethernet), 3.5 mm jack (sync port), head unit connector
Dimensions (height x width x depth)	130 x 85 x 27 mm
Weight	312 grams
Sync Port	3.5 mm jack (TTL signal)

4.4 Corrective Lenses (optional)

Correction lenses	32 pieces., ranging from -5.0 dpt. to +3.0 dpt. in incre- ments of 0.5 dpt. Made of optical-grade plastic with hard coating.
Dimensions (height x width x depth)	80 x 270 x 370 mm (complete kit)
Weight	1150 grams (complete kit)

5 Safety

5.1 General precautions

- The Pro Glasses 3 system is described in the Pro Glasses 3 User Manual and must be used according to the manufacturer's instructions. Connecting any other component to the system, or using the components improperly can cause injury to the user or damage to the equipment and is done so entirely at the user's own risk.
- The Pro Glasses 3 system must be fitted on the test participant according to instructions in the Pro Glasses 3 User Manual. Tobii Pro or its agents are not liable for damage or injuries to a person or their property due to a Pro Glasses 3 eye tracker system in any configuration being dropped. Fitting the Pro Glasses 3 onto a test participant is done entirely at the user's own risk.
- The Pro Glasses 3 system is to be used for research purposes only. Be aware that due to the low, but possible risk of failure or distraction, the Pro Glasses 3 should not be relied upon or used in dangerous or otherwise critical situations.
- Tobii Pro Glasses 3 head unit is equipped with a head strap to enable tighter mounting of the eye tracker onto the wearer's head. Neither Tobii Pro nor its agents are liable for damages or injuries to a person or their property caused by the Pro Glasses 3 head unit head strap.

5.2 Usage warning

- The Pro Glasses 3 system is composed of several components as described in the User's Manual and should be used according to manufacturer instructions. Connecting, or by other means using any other component than advised in the User's Manual may damage or injure a person, their property or recorded data, and is done entirely at the user's own risk.
- Pro Glasses 3 eye tracker should be fitted on the test participant according to manufacturer instructions. Tobii Pro or its agents are not liable for damage or injuries to a person or their property due to a Pro Glasses 3 eye tracker being dropped in any configuration. Fitting the Pro Glasses 3 onto a test participant is done entirely at the user's own risk.
- Pro Glasses 3 head unit is equipped with a head strap to enable tighter mounting of the eye tracker onto the wearer's head. Neither Tobii Pro nor its agents are liable for damages or injuries to a person or their property caused by the Pro Glasses 3 head unit head strap.

5.3 Emergency

The Pro Glasses 3 system is to be used for research purposes only. Be aware that due to the low, but possible risk of failure or distraction, the Pro Glasses 3 should not be relied upon or used in dangerous or otherwise critical situations.

5.4 Child warning

The Pro Glasses 3 is an advanced computer system and electronic device that is composed of numerous separate, assembled parts. These parts have the possibility of becoming separated from the device, constituting a potential choking hazard or other danger to a child. Young children should not have access to, or use, the device without parental or guardian supervision.

5.5 Infrared warning

Do not use the Pro Glasses 3 system when in the vicinity of devices that are susceptible to Infrared (IR) light. When activated, the Pro Glasses 3 head unit emits IR light, which can affect certain medical devices and other devices that are susceptible to disturbance by IR light and/or radiation.

5.6 Photosensitivity/epilepsy warning

Some people with photosensitive epilepsy are susceptible to epileptic seizures or loss of consciousness when exposed to certain flashing lights or light patterns in everyday life. This may happen even if the person has no medical history of epilepsy or has never had any epileptic seizures.

A person with photosensitive epilepsy would also be likely to have problems with TV screens, some arcade games, and flickering fluorescent bulbs. These people may have a seizure while watching certain images or patterns on a monitor, or even when exposed to the light sources of an eye tracker. It is estimated that about 3-5% of people with epilepsy have this type of photosensitive epilepsy. Many people with photosensitive epilepsy experience an "aura" or feel odd sensations before the seizure occurs. If the participant starts to feel odd during use, have them remove the Pro Glasses 3 head unit immediately.

5.7 Mechanical shock

The Pro Glasses 3 system is a delicate measuring instrument used for research purposes and should be treated with care at all times. To avoid breaking or damaging the internal electronic circuits, do not drop, knock, or shake the device. Eye tracking quality or accuracy can be seriously affected if the Pro Glasses 3 head unit or recording unit are dropped. If the eye tracker is exposed to mechanical shock, for example, when dropped, do not try to start it or connect it to a power source. Contact Tobii Pro Support for instructions.

5.8 Bending

To avoid breaking or damaging the internal electronic circuits, do not bend any part of the eye-tracking system. Eye-tracking quality or accuracy can be seriously affected if the Pro Glasses 3 head unit or recording unit has been bent.

5.9 Do not open or disassemble

Do not open or disassemble the Pro Glasses 3 head unit or the recording unit. Noncompliance will result in loss of warranty! There are no user serviceable components inside. Contact Tobii Pro Technical Support if your Pro Glasses 3 system is not working properly.

5.10 Connectors

The Pro Glasses 3 head unit and recording unit have numerous external interfaces (connectors). Connecting any other device or connector than those intended may cause personal injuries and/or damage the Pro Glasses. Tobii Pro or its agents are not liable for any damages or injuries to a person or their property due to connecting unintended connectors.

5.11 Head unit cable

The head unit cable connected to the head unit must only be used to connect to the recording unit. Do not use the head unit cable for any other purpose or for connecting to any other devices. Tobii Pro or its agents are not liable for any damages or injuries to a person or property due to incorrect use of the head unit cable.

5.12 Environment

Avoid any exposure to direct sunlight as this will affect eye tracking quality and longer exposure can overheat the equipment. Avoid prolonged exposure to any liquids, gels, moist, rain, or sweat. Do not use the eye tracker underwater.



Do not place or use the equipment in places subject to extreme temperatures and humidity, such as on top of and or near a heating element, in a hot or damp room, or in a hot automobile in the sun. Usage temperature: 5° C to $+45^{\circ}$ C / 23° F to 113° F

5.13 Component connection safety

The Tobii Pro Glasses 3 head unit is designed to connect only to the Tobii Pro Glasses 3 recording unit and should not be connected to any other device.



The recording unit is designed to connect to the head unit, a device running specific operating systems, with the Glasses 3 controller application installed. The recording unit should not be connected to any other devices.

5.14 Battery safety

- There is a risk of explosion if the battery is replaced by an incorrect type.
- Replacement of a battery with an incorrect type can defeat safeguards (for example, in the case of some lithium battery types).
- Disposal of a battery in a fire or a hot oven, or mechanically crushing or cutting of a battery can result in an explosion.
 - Batteries exposed to extremely high temperatures or environments can result in an explosion or leakage of flammable liquid or gas.
 - Batteries subjected to extremely low air pressure may result in an explosion or the leakage of flammable liquid or gas.

Attention!

- Risque d'explosion en cas de remplacement de la pile par une pile de type incorrect.
- Le remplacement d'une PILE par une pile de type incorrect peut neutraliser un SYSTÈME DE SÉCURITÉ (par exemple dans le cas de certains types de PILES au lithium).
- La mise au rebut d'une PILE dans le feu ou dans un four chaud, ou par écrasement ou découpe, peut entraîner une EXPLOSION.
- L'exposition d'une PILE à un environnement présentant une température extrêmement élevée peut entraîner une EXPLOSION ou une fuite de liquide ou de gaz inflammable.

L'exposition d'une PILE à une pression d'air extrêmement faible peut entraîner une EXPLOSION ou une fuite de liquide ou de gaz inflammable.

5.15 Wireless warning

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The recording unit contains radio transmitters and receivers (WLAN). Make sure that it is placed as far as possible from any equipment, objects or body parts sensitive to such signals.

電波法により5GHz帯は屋内使用に限ります。

5.16 Transportation

Use the provided case when traveling with the eye tracker. For shipping and storage, use the original packing.

For transportation, the recommended range for temperature and humidity for the device is as follows:

- Temperature: -40°C to 65°C (-40°F to 149°F)
- Humidity: 5% to 95%

ETSI 300 019-2-2 V2.4.1, T2.3 (Public transportation) with exception of high air temperature at +65°C.

5.17 Accessories

Only use accessories provided by or approved by Tobii Pro.

5.18 Cleaning

Avoid touching, scratching, or smudging the lenses on the Pro Glasses 3 head unit or the Corrective Lenses (optional accessory) and keep all the surfaces clean. Eye tracking quality may be degraded if surfaces are dusty or damaged. Take special care to ensure that there are not smudges or scratches covering either the illuminators or sensors in the lenses as these can impair performance.



Do not use window cleaners, household cleaners, aerosol sprays, solvents, alcohol, ammonia, or abrasives on any component of the Pro Glasses 3 system.



Before cleaning Pro Glasses 3, unplug the head unit cable.



Use the included cleaning cloth and clean the Pro Glasses 3 lenses gently.

Avoid getting moisture in openings and ports on the device.

5.19 California Proposition 65 warnings



WARNING: The batteries in this product can expose you to chemicals including Carbon-Black Extracts and Nickel (Metallic), which is known to the State of California to cause cancer. For more information, visit <u>P65Warnings.ca.gov</u>.



WARNING: The Tobii Pro Recording Unit in this product can expose you to chemicals including Carbon-Black Extracts and Nickel (Metallic), which is known to the State of California to cause cancer. For more information, visit P65Warnings.ca.gov.



WARNING: The USB-C to Gigabit Ethernet Adapter in this product can expose you to chemicals including Lead and Bisphenol A (BPA), which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit <u>P65Warnings.ca.gov</u>.



WARNING: The head strap in this product can expose you to Di(2-ethylhexyl)phthalate (DEHP) and Bisphenol A (BPA), which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit <u>P65Warnings.ca.gov</u>.



WARNING: The foam in the carrying bag in this product can expose you to Benzo [b]fluoranthene, Benzo[j]fluoranthene, Benzo[k]fluoranthene and Indeno[1,2,3-cd]pyrene, which is known to the State of California to cause cancer. For more information, visit P65Warnings.ca.gov.



WARNING: The AC/DC Adapter including the USB cable in this product can expose you to chemicals including Bisphenol A (BPA), which is known to the State of California to cause birth defects or other reproductive harm. For more information, visit P65Warnings.ca.gov.

6 Compliance

6.1 EU Compliance

6.1.1 Conformity with EU directives

Tobii Pro AB declares that this device is in compliance with the essential requirements of the following EU directives:

- 2014/35/EU Low Voltage Directive (LVD)
- 2014/30/EU Electromagnetic Compatibility (EMC) Directive
- 2014/53/EU Radio Equipment (RED) Directive
- 2011/65/EU Restriction of Hazardous Substances (RoHS) Directive

6.1.2 CE marking



All Tobii Pro Glasses 3 are CE-marked, indicating compliance with the essential health and safety requirements set out in European Directives.

6.1.3 WEEE marking



Pro Glasses 3 is compliant with the Waste Electrical and Electronic Equipment (WEEE) Directive 2012/19/ EU

6.2 United States and Canada compliance

6.2.1 FCC interference and Industry Canada statement



Pro Glasses 3 recording unit has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. Tobii Pro Glasses 3 can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If Tobii Pro Glasses 3 does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by increasing the separation between Tobii Pro Glasses 3 and the receiver. Modifications not expressly approved by Tobii Pro AB could void the user's authority to operate the equipment under FCC rules.

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

6.2.2 ETL compliance



The Pro Glasses 3 head unit ETL 5001591 complies with ETL regulations based on safety standard UL 62368-1:2014 2nd, CAN/CSA C22.2 No. 62368-1:2014 2nd, control number 5001591.

The Pro Glasses 3 recording unit complies with UL 60950-1 and CAN/CSA C22.2 No. 60950-1-07, certification number E180881.

6.2.3 UL compliance



The Pro Glasses 3 recording unit E180881 is compliant with UL 508A.

6.3 Electromagnetic compatibility compliance

Pro Glasses 3 complies with the following emission and immunity standards:

- FCC 47 CFR Part 15, Class B
- ICES-003 Issue 6, Class B
- EN 55032:2015, Class B
- EN 55035:2017
- CISPR 32:2015, Class B
- CISPR 35:2016

In addition to the above, the Pro Glasses 3 recording unit complies with the following emission and immunity standards:

- EN 61000-6-3:2007/A1:2011
- EN 61000-3-2:2014
- EN 61000-3-3:2013
- EN 61000-6-1:2007
- EN 55024:2010/A1:2015

6.4 Safety compliance

Pro Glasses 3 complies with the following safety standards:

- IEC/EN 62471:2008, Photobiological safety of lamps and lamp systems
- EN62311:2008, Specific Absorption Rate

Pro Glasses 3 head unit complies with the following standards:

 IEC 62368-1:2014 2nd Ed, Audio/video, information and communication technology equipment Part 1: Safety requirements

Pro Glasses 3 recording unit complies with the following standards:

 IEC 60950-1:2005 2nd + Am 1:2009 + Am 2:2013, Information Technology Equipment Safety Part 1: General requirements

6.5 China compliance

The Tobii Pro Glasses 3 recording unit and its operation comply with the following standards:

• GB 4943.1-2011 (Chinese Standard)

6.6 Japan compliance

The Tobii Pro Glasses 3 recording unit and its operation comply with the following standards:

• J60950-1(H22) (Japanese Standard)

The Pro Glasses 3 head unit complies with:

- J62368-1(H30) and IEC 62368:2014 2nd Edition
- VEI

この装置は、クラスB機器です。この装置は、住宅環境で使用することを目的 としていますが、この装置がラジオやテレビジョン受信機に近接して使用され ると、受信障害を引き起こすことがあります。 取扱説明書に従って正しい取り扱いをして下さい。 VCCI-B

The Pro Glasses 3 recording unit complies with:

6.7 Korea compliance



The KC (Korea Certification) mark signifies compliance with Korea's product safety requirements for electrical and electronic equipment and is issued by Korea-based certification bodies that have been approved by the Korea Standards Association.

7 Product Care

7.1 Operational environment

The recommended range for temperature and humidity during operations is as follows:

- Temperature: -5°C to 45°C (32°F to 113°F)
- Humidity: 5% to 95%
 ETSI 300 019-2-7 V3.0.1, Portable T7.2 (Partly temperature-controlled locations).

7.2 Transportation

Use the provided case when traveling with the eye tracker. For shipping and storage, use the original packing.

For transportation, the recommended range for temperature and humidity for the device is as follows:

- Temperature: -40°C to 65°C (-40°F to 149°F)
- Humidity: 5% to 95%

ETSI 300 019-2-2 V2.4.1, T2.3 (Public transportation) with exception of high air temperature at +65 $^{\circ}$ C.

7.3 Storage

For shipping and storage, use the original packing.

For storage, the recommended range for temperature and humidity for the device is as follows:

- **Temperature**: -25°C to 55°C (-13°F to 131°F)
- Humidity: 5% to 100%

ETSI 300 019-2-1 V2.3.1, T 1.2 (Weather protected, not temperature-controlled storage locations).

7.4 Cleaning

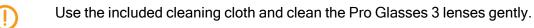
Avoid touching, scratching, or smudging the lenses on the Pro Glasses 3 head unit or the Corrective Lenses (optional accessory) and keep all the surfaces clean. Eye tracking quality may be degraded if surfaces are dusty or damaged. Take special care to ensure that there are not smudges or scratches covering either the illuminators or sensors in the lenses as these can impair performance.



Do not use window cleaners, household cleaners, aerosol sprays, solvents, alcohol, ammonia, or abrasives on any component of the Pro Glasses 3 system.



Before cleaning Pro Glasses 3, unplug the head unit cable.



Avoid getting moisture in openings and ports on the device.

7.5 Disposal of the eye tracker

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Do not dispose of Pro Glasses 3 in general household or office waste. Follow your local regulations for disposal of electronic equipment.

Appendix A Support, Training, and Warranty

A1 Customer Support

If you need help, please contact <u>Customer Support</u> at Tobii Pro. In order to receive assistance as quickly as possible, make sure you have access to your Tobii Pro device and, if possible, an Internet connection. You should also be able to supply the serial number of the device, which you will find on a sticker on the back or bottom of the device.

A1.1 Get help online

Many questions can be answered by visiting Tobii Pro Connect. It contains the latest information about contacting Support, helpful articles and FAQs, links to downloads, and much more. Log in or register to see information about your account and to reach Customer Support on <u>Tobii Pro</u><u>Connect</u>.

A2 Training and Education Services

If you are new to eye tracking, or want to extend your knowledge about eye tracking research, sign up for one of our learning programs and events on our website at <u>Training and Education Services</u>.

A3 Warranty information

Read more online about Tobii Pro Care and Tobii Pro's eye tracker warranty.

Appendix B Limitations and considerations

B1 Intended use

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Tobii Pro eye trackers are intended to be used in research activities about human behavior including eye movements, in a dry and dust free indoor environment. The product should only be used as described in this User's Manual. Please read the User Manual and other supplied documentation thoroughly before using the product.

B2 Light conditions

Tobii Pro recommends that eye tracking studies be performed in a controlled environment. Sunlight should be avoided since it contains high levels of infrared light which will interfere with the eye tracker system. Sunlight affects eye tracking performance severely and longer exposure can overheat the eye tracker. This eye tracker is not designed for exposure to (direct) sunlight. Eye tracking generally does not work in strong direct sunlight.

Shielding the eye tracker adequately from the sun may prevent sunlight from interfering with eye tracking.

B3 Eyelashes

Long eyelashes can be obstructive when the participant's eyes are less open, especially if the participant is wearing mascara. In rare cases, eyelashes may completely block the view of the participant's pupils, making eye tracking impossible.

B4 Droopy eyelids

Droopy eyelids or otherwise obstructive eyelids can block the view of the participant's pupils. In rare cases, such eyelids may completely block the view of the participant's pupils, making eye tracking impossible.

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Support for Your Tobii Pro Device

Get Help Online

Visit Tobii Pro Connect for help with your Tobii Pro device. It contains the latest information about contacting Support, links to our Learning Center, and much more. Visit connect.tobiipro.com.

Contact Your Solution Consultant or Reseller

For questions or problems with your product, contact your Tobii Pro sales representative or authorized reseller for assistance. They are most familiar with your personal setup and can best help you with tips and product training. Visit tobiipro.com/contact.