

tobii dynamox

The power to
explore your world



Introducing PCEye Plus

The most efficient and ergonomic way
to access your computer

Power to be You



PCEye Plus

The power to explore your world

Experience the most efficient and ergonomic way to access your computer with assistive technology. Combine Eye tracking, Dictation, Switch and IR in one product – the new PCEye Plus.

These various options empower you to individually create the most efficient way of computer interaction. This empowerment and independence is also the key element in our software, which is built to support you on your journey and evolve with you as you grow, without the need to change the eye tracker.

The PCEye Plus can take you anywhere. Using the same development platform, enables Tobii Dynavox hardware to

work across the entire software portfolio. This brings peace of mind to have the right hardware at hand for moving across software titles according to your needs.

Start with Gaze Point and Gaze Viewer to learn and explore eye tracking. Measure the progress and cognitive ability to evaluate potential growth into new regions like Windows Control or Communicator. The same PCEye Plus can take you from splat, smudge, paint, play and draw to full computer access with Windows Control. One hardware fits all our software and by that meets you exactly where you are and takes you where you want to go.



4-array microphone

Your eye tracker with multiple interaction methods

For those without the ability to use their hands or fingers, eye tracking is probably the quickest, easiest and most ergonomic way to operate a computer. The PCEye Plus lets you surf the web, connect with friends online, play games, Skype, turn on the lights or TV, and even make spreadsheets and documents using only your eyes.

Combine eye tracking and dictation

To further enhance the process of creating spreadsheets and documents, verbal access users use speech recognition to dictate. When the voice is picked up perfectly, dictation is the fastest way to convert the spoken word into written text. The PCEye Plus has a high quality 4-array microphone system integrated into the eye tracker. By that, you now have two extremely efficient interaction methods at hand and can freely switch between them to find the right individual balance.

Combine eye tracking and switch

The PCEye Plus has an integrated switch port on the device so you always have your switch connection exactly where you need it. Combining eye tracking and switch gives you the power to control your computer more intentionally and efficiently. With the “sticky left click” the mouse cursor will follow your eyes constantly and whenever you hit the switch, a left click is performed. Our software Windows Control is designed for switch use with the “sticky left click” and the possibility for Switch Scanning, which enables more intentional eye tracking, for greater control and precision.



Navigate your computer seamlessly

With advanced eye tracking that lets you move your head without losing accuracy. The PCEye Plus gives you the same functionality as having a keyboard and mouse.

Control your PC in the most efficient and ergonomic way



Dictate your words clearly

With a 4-array microphone system that picks up your voice perfectly and provides noise cancellation for precise speech recognition and transcription results.



Gain greater precision and control

With the switch feature that provides a “sticky left click” function and the possibility for Switch Scanning, giving you even more control options.

Your tools and benefits with the PCEye Plus

The PCEye Plus allows you to use all the functions of your computer. It is fast, ergonomic and gives you access to the many ways that a computer can enrich your life.

Personal independence

Take control and regain a healthy level of personal independence. The PCEye Plus gives you the power to handle responsibilities on your own. Sign documents online, access your bank account, make purchases and even manage your business through the device.

With the PCEye Plus and Cortana you can reduce the reliance on an assistant even further by searching for files and organizing calendars yourself. Utilize the full potential of Windows 10 with the brand new Windows Control shortcuts. All direct Windows features are integrated in the shortcuts panel, like Volume control, Cortana, cut/copy and paste, access desktop, remote control and many more.

Independent recreation – Pass the time, have fun, learn, and stimulate your mind by accessing your computer and the Internet through the PCEye Plus.

IR – environmental control

The PCEye Plus comes with a uniquely designed EyeR dongle that opens the door to IR without the need for any additional equipment. This unlocks the entire range of IR including the control of sensory rooms, IR toys, TVs and smart home functions. To use it, simply connect the dongle via USB to your computer or laptop, direct the IR signal at the intended device and take control. Once adjusted, the EyeR holds its position, so it can hang upside down, stand still and fit snugly around corners.

Windows Hello

Biometric security has never been this seamless. Automatically sign in to Windows 10 by using your eye tracker with the next generation Windows Control as a Windows Hello camera. If your Windows 10 computer is not set to fully go to sleep, you can always unlock the screen with your presence and Windows Hello. This is a Windows 10 only feature. See the PCEye Plus manual for how to set it up.

Normalcy and cutting edge design

The design of the eye tracker as well as the software inherits the latest trends in consumer electronics. Our software is designed with Microsoft Windows in mind and



we have further improved the look and feel of the hardware to align the PCEye Plus with the silver/black color theme of the Tobii Dynavox family. The back of the eye tracker is made from magnesium, which is optimal for heat distribution and reduces the weight. The two-part design of the front gives the device a very modern look and emphasizes the microphone slot, which stands out visually from other eye trackers.

Portability and Flexibility

The PCEye Plus fits perfectly on most laptop and desktop monitors with an excellent performance on up to 27" screens. Processing takes place on the PCEye Plus, enabling the usage of old and low performance PCs. This means high flexibility and low additional investments. The setup possibilities are numerous due to a 75cm long USB 2 cable and a light and slim design of the eye tracker.

In addition, the long cable makes it possible to use the eye tracker on an external monitor and the switch port allows for switch use directly where needed. Once mounted, the same magnet mount bracket can be used with the PCEye Plus, PCEye Mini and PCEye Explore.



The new Tobii advantage

Tobii is the global pioneer of eye tracking technology, with over 11 years of dedicated research, experience and innovation. Over the years, we have improved our technology and expertise to deliver the best results possible for you. This knowledge is built into all our eye trackers, including the Tobii Dynavox PCEye Plus – expertise you can rely on.

Due to its length, the PCEye Plus has one additional illuminator, creating more glints and reference points on the eye. By that, the camera catches more tracking data for better accuracy and higher precision. Combined with our software, the PCEye Plus can keep optimal track of a user's pupil position.

High precision and accuracy

The PCEye Plus, together with the zoom functionality of Windows Control, allows you to hit even the smallest targets on the screen, almost with pixel precision, again and again.

Largest trackbox

The trackbox, the imaginary volume within which you can move your head without losing accuracy, or interrupting the eye tracking session, is among the largest on the market. The large size gives you the freedom to sit or lie down comfortably with maintained eye tracking performance.

Head movement compensation

Move freely within the trackbox while maintaining superior precision and accuracy. Should you move outside of the trackbox, the PCEye Plus will quickly find your eyes again and continue to track them.

Superior trackability

The PCEye Plus provides high-quality tracking results for over 95% of users*, compared to any other system, regardless of most lighting conditions, eye color, or if you are wearing contacts or glasses.

*results based on hundreds of thousands of diagnostic images and tests on approximately 800 individuals with different conditions, vision, ethnicities, everyday dust, smudges or blemishes around their eyes, with eyes out of focus, etc.

Take control and define your path of growth

Grow your individual path without the need to change hardware. Start with Gaze Point and Gaze Viewer to learn and explore eye tracking. Measure the progress and cognitive ability to evaluate potential growth into new regions like Windows Control or Communicator.

Windows Control makes it possible to control your desktop, or any other application, through a simple, two-step process that reduces the risk of unwanted clicks. All you have to do is select the desired task that you want to perform in the taskbar, like a double click. Then, look at the desired area or icon on the screen where you want to execute the task.

Add AAC - Should you need dedicated, augmented and alternative communication software, you can also run Tobii Dynavox Communicator and Snap. These software packages provide options for more assisted communication.



Product Specifications

Type/Model	Tobii Dynavox PCEye Plus
Mounting	Magnetic mount as standard for laptop and desktop
Microphone	Microphone array consisting of 4 microphones Microsoft Cortana certified
Ports	1 × 3.5 mm Switch connector interface
Processing unit	Tobii EyeChip™ with fully embedded processing
Power	1.5W typical usage via single USB 2
Weight	280 g (9.9 oz)
Dimensions	322 mm × 22 mm × 18 mm 12.7" × 0.87" × 0.71"
System Requirements	USB 2.0 or higher, Operating System: Windows 7 64bit, Windows 8.1, Windows 10 CPU: 2 GHz, Dual-Core (recommended minimum) RAM: 4 GB (recommended minimum)
User distance	50 - 95 cm 20" - 37"
Head movement box	>25x20cm ellipse @ 50 cm >40x30cm ellipse @ 65 cm >40x35cm circle @ 90 cm >35x30cm circle @ 95 cm
User calibration (former tracking robustness)	>99 %

Detected gaze (interaction >30Hz)	99% for 95% of population**
Detected Gaze (raw data max frame rate)	90% for 95% of population**
Accuracy	< 0.3° ideal* <1.0° for 65% of population** <1.3° for 80% of population** <1.68° for 90% of population** <1.9° for 95% of population**
Precision (frame to frame)	< 0.1° ideal* <0.2° for 65% of population** <0.25° for 80% of population** <0.3° for 90% of population** <0.4° for 95% of population**
Recommended screen size at 65 cm (25.6") user distance	Up to 27"
Max head movement speed (eye position)	40 cm/s
Max head movement speed (gaze data)	10 cm/s
Max head tilt	>20 degrees
Frame rate	60 Hz
Gaze latency	25 ms
Gaze recovery	100 ms

* The "ideal" degree numbers are the previous standard of measuring accuracy and precision, both previously from Tobii and presently from all eye tracking competitors. Though "ideal" numbers are useful to get a general feel about comparative quality and performance, they are not applicable to real world usage in the same way as quantitative degree-of-accuracy and precision over percentage-of-population numbers based on extensive testing across representatives of the whole population.

** The degree-of-accuracy and precision over percentage-of-population numbers result from extensive testing across representatives of the whole population. We have made use of hundreds of thousands of diagnostic images and performed tests on approximately 800 individuals with different conditions, vision, ethnicities, everyday dust, smudges or blemishes around their eyes, with eyes out of focus, etc. This has resulted in a much more robust and high performance eye tracking experience and a much more realistic representation of true performance across the whole population, not just in a mathematically "ideal" scenario.