

WinSlate™ Eyegaze Setup Tips

Positioning Guidelines:

Positioning is key for all AAC users who utilize eyegaze as their access method. To set up for eyegaze, allow the user to sit comfortably and in a relaxed position before positioning the device. Sometimes, people sit up straight to calibrate the device and then return to a different position after calibration is complete; this degrades performance because the person has moved significantly since the time of calibration. Again, please keep in mind: before positioning the device, make sure the user is in a relaxed and comfortable position

Distance: The WinSlate™ should be approximately 60-50 mm from the camera to the face (not the screen to the face). That is approximately 19.5-23.5 inches.

Parallelism: The screen of the device needs to be parallel to the plane of the user's face. If the user is sitting vertically, the device should be vertical. If the user is leaning back, the device should tilt forward to maintain a parallel orientation to the user's face. A good point of reference, the user's eyes should be parallel to the top of the device!



Tracking Indicators:

LED Tracking Indicators: You will notice that the Enable Eyes Module has LED indicator on the eye tracking bar. This is an important indication of tracking quality. Whenever the software recognizes the user's eyes, the LED will illuminate a white circle in the center of the tracker. The LED indicator is important, as it allows you to monitor the eye tracker while the system is in use.

The goal is to have continuous, positive tracking as the user looks around the screen. When the device is properly positioned and set up, the LED light will be continuously illuminated.



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Troubleshooting Poor Eye Tracking:

Poor Camera Focus: The eyegaze camera will not be able to focus optimally on the user's eyes if the WinSlate™ is not positioned at the correct distance from the user (approximately 19.5-23.5 in) or if the face plate of the tracker is dirty. After making sure that faceplate is clean, reposition the device (move it closer or further from the end user) until consistent tracking regains.

Poor Calibration: It is necessary to recalibrate the WinSlate™ from time to time, especially with significant positioning or ambient lighting changes. See this "how-to" resource for calibrating eye gaze.

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Glare Reflections on Eye Glasses: Some users who wear glasses will have glare spots (bright reflection spots) appearing on the lens of their glasses. To correct this problem, simply tilt the eyeglasses by raising the earpiece off the ears slightly. Usually, a slight repositioning of the tilt of the glasses will move the reflective spots away from the pupil and alleviate the problem. **Note: This glare is caused by reflection from the eyegaze camera (in most cases), not from external lighting.**

Highly Reflective Eye Glasses Frames: Sometimes metal-framed or rhinestone/gem glasses that are highly reflective can cause issues. This may result in flickering/inconsistent LED indicator light; the problem will be alleviated with removal of glasses or replacing with a less reflective pair.

Occluded Pupils: Eye tracking software relies on seeing the entire roundness of the pupil. If the user's eyelids are drooping downward and covering the top part of the pupil, tracking quality will degrade. Users who demonstrate eyelid drooping benefit from mounting the device in a slightly higher position.

Medication: The eye tracker looks for a pupil size within a certain range. If the user's pupils are under- or oversized due to medication, you could experience intermittent tracking behaviors. Additionally, those with dry eyes may have difficulty with eye tracking.