

Eye-Gaze System Access Option

Eye-gaze systems have a specialised camera which tracks where your eyes are looking. The user controls the mouse on the screen by using his/her eyes. Items on the screen are selected by gazing at them for a specified period of time, by blinking or by pressing an external switch. Eye-gaze may be used to access computers and tablets which are mouse driven.

Three simple steps are required to set-up an eye-gaze system:
1) positioning, 2) calibrating, and 3) choosing the settings.

1. Position:

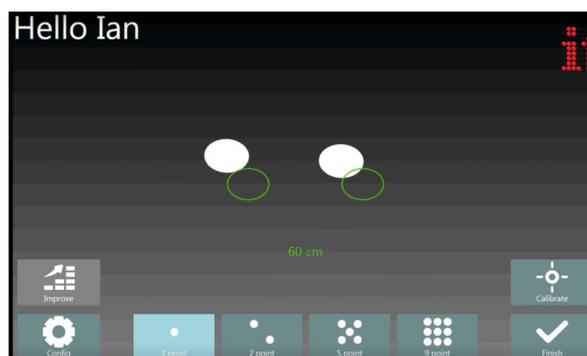
The eye-gaze system must be parallel to the person's face and should be approximately about an arm's length away. Reliable mounting is essential to ensure that the optimal position of the system is safely maintained throughout use.

It is best to avoid direct sunlight as it may affect the sensitivity of the eye-gaze system.



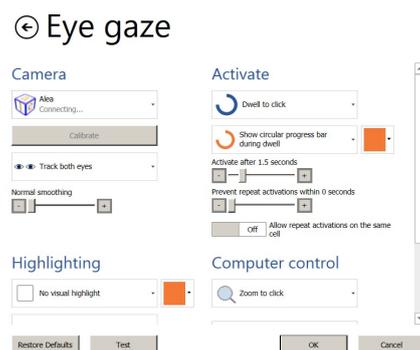
2. Calibrate:

The calibration task requires the user to track one point as it moves around the screen. This allows the eye-gaze camera to track your eyes and learn how they move making target selection more accurate. Five to nine point calibration is usually recommended. However, if the target elements on the screen are big, calibration may not be required. Calibration may not be done the first few times the user operates the system. If uncontrollable head movements are present, then less number of calibration points should be used. The calibration can also be designed to track only one eye.



3. Choose Settings:

Choose the cursor function and selection settings. You can choose either to select by: 1) dwelling, 2) blinking, or 3) controlling the cursor with eyes and selecting with an external switch. You can also select the activation speed.



User

Eye-gaze systems may be trialled with anyone who has difficulty with direct access, that is directly accessing a computer or tablet via mouse, touch, or keyboard. It is not necessary to trial/exhaust other access options before trialling eye-gaze. Eye-gaze may be used in conjunction with other access methods such as switching.

Eye-gaze may be used to access entertainment such as games, computer functions such as the internet, and communication page sets such as PODD, FastTalker 3, or Communicator 5.



Activity Progression

When beginning to use eye-gaze, it is best to start with tasks which have many targets filling the screen. Large targets may be used in the beginning, the user may then move on to smaller and fewer targets on the screen as target selection becomes more accurate. The user is taught how to move the cursor around the screen, select, drag and complete other mouse functions through meaningful and motivating activities.

Limitations

- Person may fatigue
- May not work well in direct sunlight
- May not work well if the user is dehydrated
- May not detect the eyes if the eyelids do not open adequately
- May not work well if the person wears multifocal glasses (standard lenses are acceptable)
- Not suitable for people who cannot see what is on the screen (vision impairment)
- Not suitable for people with poor head control or significant head tremors
- Due to the positioning requirements, the eye-gaze system may sometimes block the user's lines of sight.
- Must always be trialled before purchase

For more information, please contact:

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