EYEGAZE INC.

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Unique Benefits of the Eyegaze Edge

The Eyegaze Edge is safe and comfortable to use. Unlike other systems that use multiple sources of infrared light shining on the user's eyes, the Eyegaze Edge illuminates the eye with a single LED. Other systems use as many as 8 to 20 or more LEDs, which are not in the visible spectrum, but do generate heat which can dry the eyes. Dry eyes cause the user to blink more often, which can be fatiguing. To view a video showing the amount of IR light shining on a user's eyes with various eye gaze systems go to this site: https://www.youtube.com/watch?v=1Db3B3zHiwc. The gentleman in the video was having seizures when he used his eye-operated device. The fourth system tested in the Eyegaze Edge, which put significantly less light on the user's eyes.

Requires functional use of only one eye. People with eye injuries or strabismus are typically unable to successfully use most eye-operated systems because they either don't have two functioning eyes or their eyes don't track together.

The Eyegaze Edge enables patients to communicate in any position including side-lying without tipping the screen. Because it only tracks one eye and doesn't need to see the entire pupil of that one eye, the Eyegaze Edge accommodates people who are comfortable in a variety of positions. Many people with disabilities find sitting erect uncomfortable or impossible. They may choose to lean to one side, or even lie on their side while operating the Eyegaze Edge. There is no need to turn the screen for a user who is side-lying. Our brains find a tipped screen more difficult to manage. Consider how it would feel to turn your television screen sideways because you're lying on the couch!

The Eyegaze Edge uses unique algorithms to accurately locate the center of partially blocked pupils. Eye tracking is dependent on the observation of the pupil and locating its center. Typically the entire pupil must be visible in order for most eye tracking devices to be able to predict the patient's gaze point reliably. Patients with ptosis (drooping) of the eyelid may be unable to operate other eye gaze systems. Our unique "droopy eyelid compensation" feature was developed specifically for the disabled population who are most often affected by this problem.

The Eyegaze Edge works accurately with extremely large pupils Midriasis (abnormally large pupils), a side effect of many medications, may also result in a partially blocked pupil that can be accommodated. Many children normally have extremely larges pupils which may be blocked by their eyelids.

The Eyegaze Edge tracks unusually small pupils accurately. Many narcotic pain medications cause the pupils to constrict and may prevent patients from using some eye gaze systems.

The Eyegaze Edge works well with most eyeglasses and contact lenses. Our software compensates for eyes that have artificial lenses placed in the eye after cataract removal surgery, allowing the user to maintain accuracy after this procedure.