

Innovative Ideas

Drive power wheelchairs using eye gaze commands

Ability Drive, developed by [Tolt Technologies](#) and co-founded by Tracy Beavers and her Husband Jay, is an innovative wheelchair-driving system that enables individuals with limited mobility to control and drive power wheelchairs using eye gaze commands. This technology offers increased independence and autonomy to its users.

Ability Drive connects power wheelchairs and AAC, such as the Grid Pad. This method distinguishes Ability Drive from its competitors, allowing individuals who have no movement or limited control over their movements to gain control over their power chair solely by using their eyes. Truly putting eye gaze users in the driving seat for the first time.

“Ability Drive is a unique drive control interface that uses the front-facing and rear cameras on an AAC device to allow users to select buttons that direct and points their wheelchair where they want to go. Ability Drive is the bridge between the power wheelchair and a person’s eye gaze enabled AAC like the Grid Pad.”

“For people who are unable to move, Ability Drive can be life-changing. Many people who can’t drive their power wheelchair can feel ‘stuck in a corner’.

For people with diseases like MND/ALS, being able to adjust their chairs for comfort is paramount. With Ability Drive individuals can make those adjustments themselves, leading to increased comfort and reducing the reliance on a caregiver.”

<https://www.tolt.tech/>

<https://youtu.be/Xyuqgd1HgPU>



Picture shows screenshot of the tab with arrows indicating the direction and a blue rectangular interface box