

## **Ability Drive – Information & Products Recommended for Use**

### **Product Description**

Ability Drive is an interface that allows the functions of the powered wheelchair's controller to be available on the screen of an eye gaze device, enabling the user to independently drive their wheelchair and adjust the seat position using only the movements of their eyes. This product was designed to enable powered wheelchair users to independently control their powered wheelchair when other access methods are not an option due to the nature of their physical disability.

### **Potential User Examples**

**Client with MND:** Ability Drive could be considered as an option for clients with progressive conditions such as MND, where a decline in physical function has, or is likely to, lead to an inability to control powered mobility through existing control options. An eye gaze device may already be in situ (or be in the process of being assessed for) due to an accompanying communication impairment.

**Client with Duchenne Muscular Dystrophy:** Ability Drive could also be considered as an option for clients with degenerative conditions such as DMD, MS etc. where a decline in physical function has, or is likely to, lead to an inability to control powered mobility through existing control options. An eye gaze device may again already be in situ (or be in the process of being assessed for) due to accompanying communication impairment, or may be required solely as a means of wheelchair access.

**Client with Spinal Cord Injury:** Although Ability Drive is often considered as a solution when a client has a condition which also necessitates the need for an eye gaze communication device, Ability Drive could be used purely as an access solution for clients with acquired injuries such as SCI, when alternative wheelchair controls have been unsuccessful. As these clients will not have had opportunity to build up skills in the use of eye gaze as an access method, consideration would need to be given to potential users visual, cognitive, and home environments, and ensure that a suitable process for eye gaze skill development is in place as part of / prior to any trial.

### **Products Recommended for Successful Use of Ability Drive**

For use of Ability Drive, the following components will be required. Specific recommended items are included below which are felt to provide the most suitable option to support effective and reliable use, whilst also allowing after purchase support from Link Assistive New Zealand to be provided.

- **Ability Drive** (\$14,250 GST Ex) – Drive control interface allowing control of the powered wheelchair via eye gaze. Fitting and programming of this will be completed by appropriate wheelchair technician / subcontractor or wheelchair supplier.
- **Eye Gaze Device** (\$8490 - \$17,995 GST Ex) – A TD I-13 is recommended due to its high level of tracking accuracy, screen size, battery life and level of protection through its design and accompanying care package. In some situations where there is not an accompanying communication need, the lower cost EM5 with Surface Pro Bundle might be considered. However, smaller battery life may mean that additional power bank or wheelchair charging port may also be required. Provision of either of these devices through Link Assistive New Zealand will also allow Link Assistive New Zealand to provide ongoing support for the eye gaze device and software.

As Ability Drive can be used with a wide range of eye gaze devices, when clients already have an eye gaze device in situ, review of the existing device and its ability to effectively run Ability Drive would be required. Where the existing eye gaze device was not purchased through Link Assistive New Zealand, support with the setup and programming of this can be provided by Link Assistive New Zealand if required at an additional cost.

- **Mounting** (\$1,205 - \$1,850 GST Ex) – Mounting solutions will be dependant on an individuals specific needs including their make and model of wheelchair, positioning, and home environment. A Monty 3D Wheelchair Mount is felt to be the most likely solution and can be adjusted to meet most situations. When required the Wheelchair Mounting Form can be used to guide information gathering and allow a suitable option to be identified by Link Assistive New Zealand.

Where clients already have a mounting solution in place for positioning an eye gaze communication device, use of this can be explored in the first instance. Discussion around changes to positioning to support wheelchair control may need to be held with the original assessing therapist to ensure it continues to meet communication needs.

## Guidelines

Ability Drive should only be used indoors within the client's home environment and outside strictly within the confines of the client's private residence (e.g. rear enclosed yard if assessed as safe to do so by the treating therapist / clinician). It should not be used within the wider community.

The client should always have their therapist / responsible carer present during the trial period when using Ability Drive to control their powered wheelchair with eye gaze.

The treating / prescribing therapist / clinician should utilise appropriate assessment guidelines / measures when determining whether Ability Drive is appropriate for their client e.g. powered mobility aid driving assessments and prescribing guidelines.

## **Disclaimer**

Link Assistive is a supplier of Assistive Technology and provides short-term loans / trials of certain Assistive Technology products for the purposes of enabling therapists and other service providers to determine the most suitable solution for their client. By supplying Ability Drive and / or offering it for trial, Link Assistive does not warrant that this product is suitable for the individual / client. It is the responsibility of the treating / prescribing therapist / clinician to determine suitability of this product for their client. In no event shall Link Assistive be liable for any damages to a person or property arising out of or in connection with the trial and / or use of Ability Drive.