

Assistive Exo Arm

Status: Filled

Group Members: James Brown, Yu Dan, Xin Li, Yingzheng Lu, Zaijie Yao

Sponsor(s):

Special Considerations

Skills that will be developed in this project:

Hardware and software design and implementation

Ergonomic and discreet design for packaging of the motorized components

User driven design based on unique requirements of Yasmin

Signal processing of EMG signals from arm

Design and implementation of control system with feedback from EMG

Yasmin, Neil Squire Society's Research and Development Manager and the Makers Making Change team will guide the Capstone students as they implement suggestions on improvements into the project. The team will play a direct role in the pilot and rollout of this solution. The work will be open-sourced so that people can recreate and adapt for other geographical communities across Canada and the US. Our work is funded by Google.org, the Vancouver Foundation, and the Government of Canada.

Industry Sponsor

The Neil Squire Society uses technology to empower people with physical disabilities. A national non-profit organization based in Burnaby, their work began with Neil Squire, a 20 year-old University of Victoria student who broke his neck in a car crash in 1980. Students created a system where Neil could sip and puff on a tube, which was captured and translated by a morse code machine, enabling him to type sentences and communicate independently. When Neil