



Company: Quality of Life Plus

Project Title: Voice Activated Shifting Design

Project Date: Spring 2019

Problem: Injured during combat, Sergeant Tim Brown was left without his legs, right arm, and part of his left hand. These injuries cause Sgt. Brown to experience difficulty shifting gears while riding his custom hand-cycle.

Solution: To provide Sgt. Brown with an easier shifting experience, the team successfully created a fully enclosed and battery powered voice activated gear shifting system. This system utilized an electronic gear shift mechanism, a microphone, and a custom Arduino program to interpret the voice commands and actuate the gear shifter.

