Mechanical Redesign and Implementation of Intuitive User Input Methods for a Hand Exoskeleton Informed by User Studies on Individuals with Chronic Upper Limb **Impairments**

by

Tess Bisbee Meier

A Thesis Submitted to the Faculty of the

WORCESTER POLYTECHNIC INSTITUTE In partial fulfillment of the requirements for the Degree of Master of Science

in

Robotics Engineering

by

May 2018

APPROVED:

Dreg Fisch

Professor Gregory S. Fischer, Advisor

duas a. Clance

Professor Edward A. Clancy, Committee Member

Professor Zhi Li, Committee Member