This project is aimed to help a person with transcarpal amputation and hand disarticulation perform daily tasks without the help of a third party. The client needs a lightweight prosthetic hand that can be attached by the end-user without the help of a third party. This prosthetic will be designed to pick up basic household items such as a soda can, and outlast its predecessor. With aid from the Removal Aid and Glove Stand (R.A.G.S.) the user is able to attach and detach the prosthetic without the help of a third party.

Our sponsor is Jeff Wield, a SDSU professor and lecturer whose emphasis is in Product Design and Manufacturing.

**System Performance**

Due to the COVID-19 induced campus shutdown, system testing and fabrication was pushed back by several weeks as the team adjusted. The team and end-user could only conduct testing through Zoom meetings featuring system prototypes, and we can confidently conclude the system will conform to the functional requirements based on the success of Prototypes 3 and 4. This is because the delivered product will be adjusted very slightly to meet desired performance parameters.

The end-user reported Prototype 3 to be comfortable, lightweight, and features a smooth actuation mechanism that allows fingers to bend in a swift motion. The R.A.G.S. mechanism is also extremely easy to use, especially with the implemented foam guides that aid with proper alignment of the catch points and notches.

Our end-user was able to bend the glove’s fingers, allowing them to successfully hold common objects of various radii (See below).