

## CWSF 2018 - Ottawa, Ontario



### Sophia Antoniuk, Braelynne Heck

#### A Helping Hand

**Challenge:** Innovation

**Category:** Senior

**Region:** Saskatchewan Chinook

**City:** Gull Lake, SK, Sceptre, SK

**School:** Hazlet School

**Abstract:** My partner and I built a myoelectric prosthetic hand. What this essentially means is that when an amputee contracts the muscles remaining on their stump an electrical gradient is created on the skin. This gradient is picked up by the myoelectric sensor which sends a signal to the circuit board to move the hand.

#### Biographies

**Sophia** - My partner and I got the inspiration for our project from a story that was in the news a while back. It was about a prosthetic arm that was wired directly to the user's brain and that is how they operated the prosthetic. We would love to continue working on our project to a point where we could actually fit it to an amputee and have it operational enough to perform useful tasks for this individual. The advice I would give a student thinking about doing a project is: go for it! When my partner and I started this project we had no background in bioengineering, electronics, and computer programming. We were able to learn these things throughout ...

**Braelynne** - My partner and I got the inspiration for our project from a story that was in the news a while back. It was about a prosthetic arm that was wired directly to the user's brain and that is how they operated the prosthetic. We would love to continue working on our project to a point where we could actually fit it to an amputee and have it operational enough to perform useful tasks for this individual. The advice I would give a student thinking about doing a project is: go for it! When my partner and I started this project we had no background in bioengineering, electronics, and computer programming. We were able to learn these things throughout ...

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