

## CWSF 2019 - Fredericton, New Brunswick



### Kendra Prasad, Kiran Prasad

#### RoboElbo: Innovative Powered Elbow for Brachial Plexus Injury

**Challenge:** Innovation

**Category:** Senior

**Region:** Lambton County

**City:** Plympton-Wyoming, ON, Plympton-Wyoming, ON

**School:** St. Patrick's H.S.

**Abstract:** We developed a mechanical elbow brace that moved the elbow using a remote control. Our brace was less expensive, lighter, and less bulky than the currently existing elbow braces. It even fit under a jacket! This brace would allow anyone who had a stroke, MS, or was injured and became unable to move one of their arms.

#### Biographies

Kendra - I am a grade 12 student at St. Patrick's Catholic Secondary School. I enjoy reading, playing the piano, travelling and attending school. This year, my project involved creating a motorized elbow brace for someone with a brachial plexus injury. I was inspired to do this project when seeing the individual dealing with the injury. For furthering the project, I would like to make the brace more functional for day-to-day life. The advice I would give other students thinking about doing a project is to do something that interests you or makes a difference in the world or to someone. It is very satisfying to see your creation have an impact on someone...

Kiran - My name is Kiran Prasad. I am a grade 9 student, who enjoys coding and technology. I am on the FIRST Robotics team as a programmer, and I plan on enrolling in the University of Waterloo's software engineering program. I have completed my Bronze Cross, and I am on my way to becoming a lifeguard. I earned 7 awards in my regional science fair this year, the most notable being Enbridge Gold, Lambton College Engineering and Computer Sciences Award, and the International Society of Automation Award. I got my inspiration by looking in my community, seeing someone who could use assistance, and seeing what I could do to help them and improve their quality of life...

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