

## CWSF 2015 - Fredericton, New Brunswick



### Gavyn McCabe, Max Fisher

#### Engineering Optimal Gear Ratios for Robotics

**Challenge:** Innovation

**Category:** Senior

**Region:** Algoma Rotary

**City:** Sault Ste Marie, ON

**School:** Superior Heights Collegiate & Vocational School

**Abstract:** The motivation for this project was to learn how to use gears and motors to their fullest abilities. A problem that we encountered in our VEX robotic competitions was that our motors gave out from lack of power. To fix this we tested different gear ratios with different motors to determine their speed and power. We will apply what we have learned to our problem.

#### Biographies

Gavyn - My name is Gavyn McCabe i am in grade 11 at superior heights. For the past two years i have been involved in the local science fair and also the VEX robotics competition. I also enjoy playing many different sports. For post secondary school i would like to go to Waterloo to study architecture. Over the past few years i have won many aawards such as: Athlete of the year, VEX robotics first place, and also many awards in the local science fair. a great experince for me was to go to OFSAA four times. twice for track and field, once for basketball, and once for football. Our inspiration for this project was to help us fix problems we were having ...

Max - I am a grade 11 student at superior heights C. & V.S. Through out high school i have participated in football, wrestling, track and field, robotics and other school related groups. I have qualified for OFSAA in all my sports and qualified for provincials in robotics. The inspiration for our project came from the robotics competition and all of the challenges we came across. We hope to use what we learn from this experience to increase our aptitude at robotics competitions and hope that one day we may peruse a carrier in robotics.

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