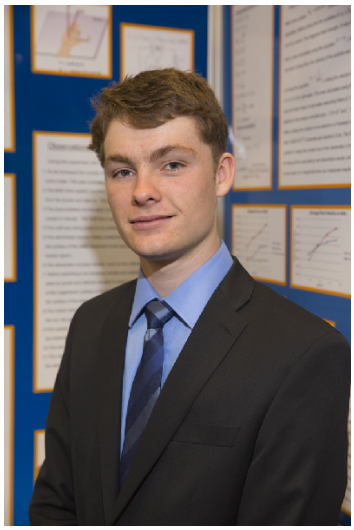
CWSF 2016 - Montreal, Quebec



Ryan Madden

Magneto-Hydrodynamic Drive

Challenge: Innovation
Category: Intermediate
Region: Simcoe County
City: barrie, ON
School: Bear Creek S.S.
Abstract: In this experimental investigation the relationship between voltage and force in a Magnetohydrodynamic propulsion system was studied. It was determined that there was a direct relationship between the two and that the force plateaued at around the 27 volt range. This effect would need to be studied further to correctly determine the factor creating this limitation.

Biography

Ryan Madden is a Grade 10 student attending Bear Creek Secondary School in Barrie, Ontario. He participates in hockey, biking, snow sports, water sports, and camping. At school he is involved in the academia life and his studies. He enjoys physics, chemistry and mathematics and likes to apply these principles to activities found in and around home and school. The inspiration for this project came from his interest in electric and magnetic fields. After deciding on the general topic area, he looked for applications involving motion. Then he found the right hand rule of magnetic forces and created a working model for hydro propulsion using these principles. He determined that this method of propulsion worked but had its limitations. Some areas of further investigation are the reasons for these limitations, better power sources that would result in a more constant controllable current, the possible reversibility of this application and other areas in which this technology could be applied. When considering doing a science project make sure that the topic involves principles and theories that are interesting and that can be investigated using the scientific method of research.