

## CWSF 2011 - Toronto, Ontario



### Alex Chlysta

#### Rover Robotics: A Better Approach to Rover Planetary Exploration?

**Challenge:** Discovery

**Category:** Intermediate

**Region:** Vancouver Island

**City:** Victoria, BC

**School:** Claremont Secondary School

**Abstract:** Using physics simulation software, three rover designs were created. One "crab", one "dainty" walker and a wheeled design were individually evaluated using nine different levels of gravity and eight levels of surface friction. Gravity and friction were increased incrementally until failure of the rovers occurred. Observational data was used to determine the most universally adaptable rover design. The short-stride "dainty" walker was the most robust.

#### Biography

My name is Alex Chlysta, I am a Grade 10 student at Claremont Secondary School. I play piano, electric guitar and tenor saxophone. I am an avid swimmer, and I'm working on my bronze cross. My hobbies include golfing, skiing, rock climbing, photo editing, web design, and coding. In my spare time I act as a webmaster, a server operator and volunteer at my local library teaching seniors how to use computers. When I graduate, I plan on pursuing a career in medicine or computer science.