

CWSF 2012 - Charlottetown, Prince Edward Island



Sam Bunka

Perpetual Motion Machine

Challenge: Innovation

Category: Junior

Region: Central Okanagan

City: Kelowna, BC

School: Aberdeen Hall Preparatory School

Abstract: I used electromagnetic and mechanical energy in an attempt to make a more efficient electric motor. I had a piston being pulled into a spring by a magnet, until it is switched off. Then the spring propels the piston into the top set, which does the same. This back and forth motion is transferred into circular motion.

Biography

Two years ago, I did a science project on maglev trains and used magnetism to move the train forward with no energy source. Last year I read in a magazine about a one-wheeled motorcycle. I thought I could power such a vehicle by bouncing a ratchet on a spring, and spinning a wheel. Then I came up with this: I want to explore using combinations between gravity, magnetism, and mechanical energy to see what uses the least energy to produce the most motion. I plan to add to the machine into a type of motor/generator. I play guitar and basketball in my spare time. Last year I made it to the regional science fair, and also won a school wide prize for extraordinary academic achievement. I plan on going into an engineering and physics career. There are two things I can say about science projects: One is that presentation is important. Even simple projects can be done really well with a good presentation. Two is that you have to pick a topic that you actually enjoy. Projects you make up on your own will be the most enjoyable. There's no point in doing it if you don't have fun.