

# CWSF 2012 - Charlottetown, Prince Edward Island



## Alex Sletten, Nathan Benson

### Coil Guns

**Challenge:** Discovery

**Category:** Senior

**Region:** Saskatchewan Chinook

**City:** Hazlet, SK

**School:** Hazlet School

**Abstract:** This project studied some of the common factors affecting electromagnetic induction coils, including: coil diameter, coil length, core material, wire gauge, voltage, and the number of coils/cm. Testing was conducted using home built equipment constructed from old and recycled materials, such as wood scraps, salvaged electronics, etc. through testing it was found that coils/cm and voltage played the greatest role in an induction coil's effectiveness.

### Biographies

Alex - My name is Alex Sletten and I attend Hazlet School. I live in the small town of Hazlet. I enjoy participating in many different sports including curling, volleyball, badminton, and skiing. I have always enjoyed the maths and sciences and, as a result, next year I will be attending the U of S in order to become an engineer. This will be my first year participating in a major science fair and I look forward to the experience.

Nathan - My name is Nathan Benson and I am a grade 11 student from Hazlet, Saskatchewan. I am an executive member of my school's SRC. I am involved in many extracurricular activities including: Volleyball, long distance running, curling, and Judo. My science fair project was initially inspired by my interests in both electronics and natural sciences (i.e. physics). In the future I would like to improve upon the design, and make this project as effective and efficient as possible. This further investigation may however, take place in the form of a long term hobby rather than as a science fair project. I have found my involvement in the science fair p...

### Awards

### Value

Excellence Award - Senior - Bronze Medal Sponsor: Nuclear Waste Management Organization	\$300
University of Ottawa Entrance Scholarship Senior Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Ottawa	\$1 000
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
<b>Total</b>	<b>\$2 300</b>