

## CWSF 2017 - Regina, Saskatchewan



### Harrison Cormier

#### "The Magic Carpet" ? Examining Piezoelectricity as a Novel Alternative Energy

**Challenge:** Innovation

**Category:** Junior

**Region:** Greater Vancouver

**City:** Bowen Island, BC

**School:** Island Pacific School

**Abstract:** My objective was to develop a piezoelectric mat as an innovative alternative energy solution for large metropolitan areas. My research focused on the potential utilization of the piezoelectric effect to convert the kinetic energy from foot traffic to electrical energy. The results show that a series of piezoelectric mats could be applied on a large scale to effectively become an economical source of alternative energy.

#### Biography

My name is Harrison Cormier and I am a grade 7 student at Island Pacific School which is located in the Metro Vancouver area, on Bowen Island. I have always been fascinated with research and learning in order to understand the scientific, political and socioeconomic problems that are facing our world. I enjoy researching the latest innovations in; technology, neurology and health and also read literature from contemporary scientists and entrepreneurs. My hobbies include swimming, martial arts, and developing my sailing skills. I was inspired to design with piezoelectricity as I saw it as an innovation that could create energy which was not dependent on our resources or environmental conditions, it was dependent on humans. I was excited to extend my research and be able to support a hypothesis that energy could be generated cost effectively by humans walking in areas of high pedestrian traffic by utilizing piezoelectricity. My advice for students worldwide is to be passionate about their interests and never stop asking questions. In 2015, I won a junior Gold at the Sunset Country Regional Science Fair and in 2017 I won Gold at the Greater Vancouver Regional Science Fair. I look forward to participating in CWSF 2017.

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