CWSF 2019 - Fredericton, New Brunswick

Andrew Johnson, Cameron Johnson

Power Step ? Using Piezo Transducers to Generate Electricity

Challenge: Innovation
Category: Senior
Region: Avon Maitland-Huron Perth
City: Stratford, ON
School: Stratford Central S.S.
Abstract: We created a shoe insert that uses Piezo elements to generate electricity from vibrations. These vibrations are created when walking. The insole can be inserted into any shoe, with power being generated while walking or running. This power is stored in a battery and can be accessed through the micro USB port. The device was created to generate electrical power by walking.

Biographies

Andrew - Hi! My name is Andrew. I am 15 and in grade 10 at Stratford Central Secondary School in Stratford, Ontario. My interests include computers, cartooning, acting, and art. I enjoy helping others, and along with my brothers, am involved in fundraising activities and food drives to support our local community. This was the second time that my brother and I have worked collaboratively on our science fair project. It was a wonderful experience to brainstorm our ideas and sort through our findings together. I am very excited to be competing for the second time at the Canada Wide Science Fair and enjoy sharing this experience with my older brother. We...

Cameron - My name is Cameron. I am 17 and in grade 12 at Stratford Central Secondary School in Stratford, Ontario. My interests include computers and scientific discovery. I am also a competitive fencer. My brothers and I have a Me to We group and initiate fundraising and food drives in our local community. I have competed in the science fair since grade 4. This is the second time that I have entered with my younger brother. Last year was out first year at CWSF and we had a great time in Ottawa. I then spent the month of July in Ottawa for the SHAD program. We are excited to be travelling to Fredericton this year to present our project on generating el...