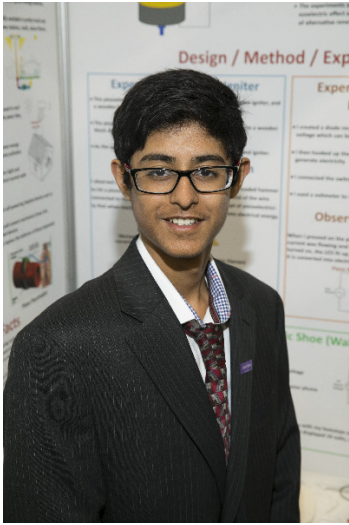


CWSF 2017 - Regina, Saskatchewan



Arjun Devnani

Piezo Power (Energy Harvesting)

Challenge: Energy

Category: Junior

Region: Frontenac, Lennox & Addington

City: Kingston, ON

School: Calvin Park P.S.

Abstract: Piezoelectric materials produce charged particles in the form of electrical energy when mechanical stress is applied upon them. My project involves study, experiments and demonstrations of piezoelectricity production as an efficient form of renewable energy. Energy harvesting via piezoelectric effect creates natural energy that can be used to power anything. The piezoelectric effect can be used in musical instruments, roofing tiles, floor tiles, and shoes!

Biography

My name is Arjun Devnani and I am in grade 8 at Calvin Park Challenge Program in Kingston, Ontario. I have always had a strong passion for Mathematics and Science since childhood. I have been enrolled in KUMON math program since age 4 and currently doing high school level math. I have also participated in Mathematica contests where I have won a gold medal twice. Since childhood I have participated in FLL LEGO Robotics competitions, where we build and design robots while studying social and global issues. I have always enjoyed programming in my robotics team. Tennis and basketball are my favorite sports and I also enjoy skating in winters. I have also won first, second and third place awards several times in Spelling Bee competitions. I have been attending the FL&A Science Fair since 2014 where I have won gold and silver medals in the last three years. My past science projects have covered the topics of Magnetic Levitation, Hydraulics & Pascal's Law, and Skin Friction. This year, my project is on the Piezoelectricity to study how natural energy can be converted into electrical energy. I am very excited to be part of the CWSF in Regina this year.

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