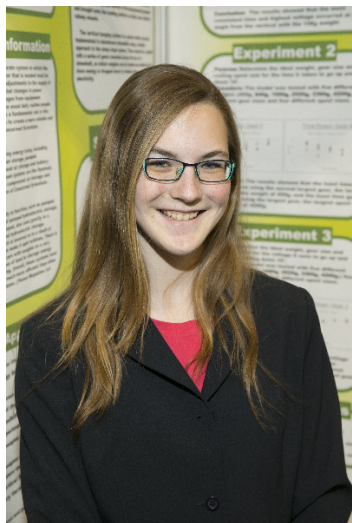


CWSF 2017 - Regina, Saskatchewan



Monica Mahut

GEARS: Gravitational Electricity Accumulating Renewable Storage

Challenge: Innovation

Category: Intermediate

Region: Bay Area

City: Burlington, ON

School: M.M. Robinson H.S.

Abstract: The project purpose is to demonstrate a novel way to store renewable energy using a gravity based storage battery. Two systems were designed; one utilizing a steep slope and another a vertical drop. The vertical drop system was tested and economically assessed. It demonstrated safety and cost competitiveness with available technology and up to 82% efficiency, which is better than current battery storage systems.

Biography

My name is Monica Mahut. I'm in grade 9 at MM Robinson H.S. in Burlington, Ontario. My birthday is May 20th. Within my school, I participate in many extra-curricular activities such as the school Junior Reach for the Top team, the Eco club, the junior Jazz and Concert bands and the school Music Council. I participate in many extra-curricular activities outside of school such as taking lifesaving swimming courses, leadership courses, Polish Girl Scouting, piano lessons and Polish School classes. I have participated three times at the regional science fair and have won two silver medals and one gold medal. The inspiration for my project started from when I was learning about renewable energy in science class this year and how it needs to be stored, so I was inspired to try an idea of storing renewable energy using gravity. The possible plans for future investigations would have to do with finding an even more cost effective or smaller way of storing renewable energy using the system I built. The advice I would give to other students is to think outside of the box, always be curious and not be afraid to try something new.

Awards

Value

Renewable Energy Award - Intermediate Sponsor: Ontario Power Generation	\$750
Excellence Award - Intermediate - Bronze Medal Sponsor: Youth Science Canada	
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
Total	\$1 750