



CWSF 2016 - Montreal, Quebec



Caroline Mahut

Slowing Down To Power Your Town

Challenge: Innovation
Category: Senior
Region: Bay Area
City: Burlington, ON
School: M.M. Robinson H.S.

Abstract: The purpose of this project is to design a road based system that is able to

collect the energy that a vehicle normally dissipates as heat while braking and transform it into usable electricity. The system designed was a series of road mounted resistive pedals that reduced vehicle velocity on a downhill sloping road while simultaneously energizing hydraulics that power a

turbine driven electricity generator.

Biography

My name is Caroline Mahut and I am 17 years old. I was born February 1st 1999 in Burlington, Ontario. I am a Grade 11 student in the French Immersion Program at M.M. Robinson High School. As I have a polish heritage, I am fluent in the Polish language as well as French and English. My favourite hobbies include reading, playing piano and cross country running. I am also a member of the Polish girl guides and attend Polish language classes. I am officially a lifeguard as I have recently finished the NLS life-guarding course. My project inspiration was based off of a question that I asked myself in my physics class: Why do we waste so much energy when braking a vehicle and how can we reuse this energy that is dissipated as heat into the environment? This inspired me to find a solution to this question, which was also the purpose of my project. If you are interested in participating in a science fair, it is best to start with an exciting topic that really interests you and keep exploring new ideas that improve it.

| Awards | Value |
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| Challenge Award - Innovation - Senior | |
| Sponsor: Youth Science Canada | |
| Excellence Award - Senior - Gold Medal | \$250 |
| Sponsor: Youth Science Canada | |
| Dalhousie University Faculty of Science Entrance Scholarship | \$5 000 |
| Senior Gold Medallist - \$5000 Entrance Scholarship | |
| Sponsor: Dalhousie University, Faculty of Science | |
| UBC Science (Vancouver) Entrance Award | \$4 000 |
| Senior Gold Medallist - \$4000 Entrance Scholarship | |
| Sponsor: The University of British Columbia (Vancouver) | |
| University of Manitoba Entrance Scholarship | \$5 000 |
| Senior Gold Medallist - \$5000 Entrance Scholarship | |
| Sponsor: University of Manitoba | |
| University of Ottawa Entrance Scholarship | \$4 000 |
| Senior Gold Medallist - \$4,000 Entrance Scholarship | |
| Sponsor: University of Ottawa | |
| Western University Scholarship | \$4 000 |
| Gold Medallist - \$4000 Entrance Scholarship | |
| Sponsor: Western University | |
| Total | \$22 250 |



