

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

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