

CWSF 2017 - Regina, Saskatchewan



Caroline Mahut

Catch the Wave: Harnessing Electricity from Aqueous Sinusoidal Oscillations

Challenge: Innovation

Category: Senior

Region: Bay Area

City: Burlington, ON

School: M.M. Robinson H.S.

Abstract: The purpose of this project is to develop a novel system to harness large water body wave energy and convert it into electricity for use in coastal areas of developing countries not serviced by an electrical grid. The wave capture system was designed, built, tested and validated. It was shown to be economically viable, simple in design, constructed using readily available materials and low maintenance.

Biography

My name is Caroline Mahut and I am 18 years old. I was born February 1st 1999 in Burlington, Ontario. I am a Grade 12 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 research in which I was attempting to find an alternative renewable energy source for developing countries. I discovered that 8 out of 10 of the countries with the highest population without access to electricity bordered large bodies of water. This led to the purpose of my project which was to develop a system that is able to harness the energy of a wave and convert it into electricity for developing countries while maintaining affordability and design simplicity. I would advise other students that are thinking about a science project to stay curious and keep asking questions.

Awards

Value

Renewable Energy Award - Senior Sponsor: Ontario Power Generation	\$1 000
Excellence Award - Senior - Silver Medal Sponsor: Youth Science Canada	
Dalhousie University Faculty of Science Entrance Scholarship Senior Silver Medallist - \$2500 Entrance Scholarship Sponsor: Dalhousie University, Faculty of Science	\$2 500
UBC Science (Vancouver) Entrance Award Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: The University of British Columbia (Vancouver)	\$2 000
University of Ottawa Entrance Scholarship Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: University of Ottawa	\$2 000
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
Total	\$9 500