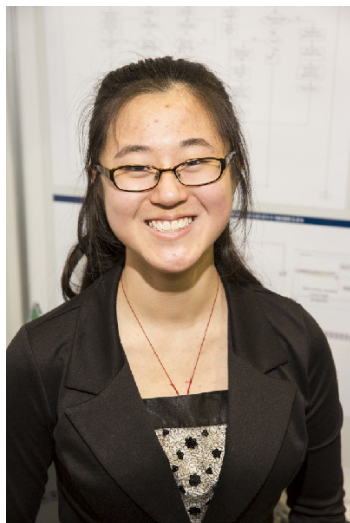


CWSF 2015 - Fredericton, New Brunswick



Linda Guo

Ready, Set, Go!

Challenge: Innovation

Category: Senior

Region: Wood Buffalo

City: Fort McMurray, AB

School: Westwood Community High School

Abstract: Four lives are lost every day in Canada through vehicle collisions. The objective of this project is to design and build an autonomous vehicle system that can robotically override any impairments of the driver using both sensory and passive features, which includes the ability to avoid obstacles, follow the correct side of roads, respond to traffic signals, switch lanes, and be aware of directions.

Biography

My name is Linda, and I am a Grade 11 AP student with a passion for the health sciences and a 96% average in my first semester math, chemistry, biology, and English courses. I lead the Uptown Conservatory Ensemble as concertmaster and intern at a dental clinic, where I care for patients and shadow the doctors. In school, I am a member of our Model UN club and was a part of the Vex Robotics team that represented Canada in the 2014 Vex Worlds competition. In my free time, I enjoy reading fiction novels, skiing, and playing chess. Inspired by MADD, the objective of my project was to create automatic robotic vehicle systems that are able to override any miscalculations or impairments that the driver may be afflicted with. Mimicking the physical capabilities of a car, it is able to perform basic tasks related to driving, such as switching lanes, conducting sharp turns, avoiding obstacles, responding to stop lights, and direction awareness, as well as responding to outwards stimuli transferred by sensors. My advice to other students is that no idea is too big. Along the way, you will discover strengths you never knew you had.

Awards

Value

| | |
|---|----------------|
| Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada | |
| University of Ottawa Entrance Scholarship Senior Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Ottawa | \$1 000 |
| Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University | \$1 000 |
| Total | \$2 000 |