

# CWSF 2012 - Charlottetown, Prince Edward Island



## Jerry Han, Angela Gaiero

### Autonomous Gamma and Beta Radiation Detection and Mapping Robot

**Challenge:** Innovation

**Category:** Senior

**Region:** Niagara

**City:** St. Catharines, ON, St. Catharines, ON

**School:** Sir Winston Churchill

**Abstract:** Using the latest electronic components, we have designed, built and programmed a fully functional prototype of a robot to be deployed in areas with radiation contamination targeted for clean-up. Our robot can autonomously explore a contaminated site, supplying live data through radio as well as record a map of the area based on radiation levels.

#### Biographies

**Jerry** - My name is Jerry Han, I am currently in twelve at Sir Winston Churchill Secondary School. Me and my parents immigrated to America when I was five, and then to Canada a few years later. I am currently captain of my schools robotics team, orchestra and music council. I have volunteered as a councillor for a summer camp at Brock University, as well as many school related fund raisers. My hobbies include biking, fishing and video games. I was inspired by my project due to the recent disasters in Japan involving a nuclear meltdown. Me and my partner seek to make future cleanup of situations like this safer for the workers. Our plans for further de...

**Angela** - Angela Gaiero is a student at Sir Winston Churchill Secondary School located in St. Catharines Ontario, where she participates as a very active member on her schools robotics team. She is a captain, driver, programmer and engineer. She has travelled with the team to over 15 competitions where they have won various awards. Three of the competitions she has attended were World Championship events (2009-2011). Their team was very successful finishing overall within the top 11 each year. Her interest in robotics started in grades 7 and 8 where she led her team of four to a silver medal at the Ontario Skills Canada Competition. Through her partici...

#### Awards

#### Value

Excellence Award - Senior - Bronze Medal Sponsor: Nuclear Waste Management Organization	\$300
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
<b>Total</b>	<b>\$2 300</b>