CWSF 2012 - Charlottetown, Prince Edward Island

Rachel Alexandra Shadoff

Vortex Cooling

Challenge: Innovation
Category: Junior
Region: Peel
City: Mississauga , ON
School: Tomken Road Senior P.S.
Abstract: This experiment was conducted in order to see how well vortex cooling works, and to find the best combination of variables for a vortex tube. A vortex tube was constructed during this project and was tested to find the most efficient combination. The results showed that the smallest washer and the bluntest end piece that provided the best seal were the most effective.

Biography
As a second time CWSF finalist, I'm glad to be back. I've been busy since last year with many extra-curricular activities, such as my FLL robotics team. I'm the captain of the Sci-Borgs, and we are going to Germany this June to compete in the European Open Championship. I've also started writing a few books, which I hope to finish. Somehow, my books always remain ending-less, even though writing is one of my passions(besides science fair, of course). I'm a grade 8 student at Tomken Road Middle School, which means I'm quickly approaching high school. I definitely want a post-secondary education, and would like to pursue a career in either science or engineering. This year, I would like to win at least one award of some kind with my project on Vortex Cooling.

Awards	Value
Excellence Award - Junior - Silver Medal Sponsor: Youth Science Canada	$700
Western University Scholarship Silver Medallist - $2000 Entrance Scholarship Sponsor: Western University	$2 000
Total	$2 700