

# CWSF 2016 - Montreal, Quebec



## Joshua Balisch

### A Follower Robot

**Challenge:** Innovation

**Category:** Junior

**Region:** Ottawa

**City:** ottawa, ON

**School:** Westboro Academy

**Abstract:** This project involved designing, building, and programming, a prototype Follower Robot. The prototype uses an Arduino micro-controller, and is programmed in C to follow an infrared light beacon. Algorithmic equations were developed to apply weighted biasing to control left and right steering based on perceived spatial location of an IR beacon. The hope is a subsequent larger version could assist the mobility challenged.

### Biography

My name is Joshua Balisch. I am in grade 8, and live in Ottawa with my engineer dad, doctor mom, and 3 cats. I am what you would call a bookworm and science geek - I love Mythbusters! I have attended Westboro Academy school (a small private bilingual school) since junior kindergarten, and will be graduating in the summer of 2016. I am involved in piano, air cadets and love to fly in all types of planes both in the real skies and on my flight simulator. I am also am training for my black belt in Taekwondo. I have travelled over the last years to northern Canada, Washington DC, Newfoundland, and most recently the Amazon rain-forest in Ecuador (with Me-to-We). The inspiration for my project was a simple desire to build my own robot and have it be useful in some manner, which led to the idea of a helper follower robot. In the future, I would like to build even more complex and challenging robotics. Many thought I was crazy building a robot from scratch, but I proved them wrong and thus would tell any student if you have a desire in science you can do it too!

### Awards

### Value

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