

# CWSF 2016 - Montreal, Quebec



## Zane Frantzen

### Smart Water Monitoring System: Using Microcontroller Technology

**Challenge:** Innovation

**Category:** Intermediate

**Region:** Simcoe County

**City:** Collingwood, ON

**School:** Pretty River Academy

**Abstract:** Using Microcontroller technology, this project aimed to create a system allowing the accurate monitoring of water use of individual faucets or showers. The recorded water use could be either viewed on an iPhone app, website, or directly on the Water Monitors. Using this system, the owner could accurately gauge their water use and reduce it accordingly. The final design was accurate to 99.2% over time.

#### Biography

My name is Zane Frantzen. I'm in grade 10 at Pretty River Academy in Collingwood, Ontario. After graduating high school, I would like to go to university for either Computer Software Engineering or Electrical Engineering. My hobbies include programming apps, creating websites, and playing sports. My favorite sports include skiing, soccer, golf, swimming, and tennis. This is my second time at Canada Wide Science Fair, and I'm excited! I got the inspiration for my project when I was washing my hands one day in the Summer. I noticed that there was no way for me to accurately know how much water I was using while washing my hands. My next step for my project would be to A/B test it and see if people use less water when the monitoring system is active. If I were to advise other students thinking about doing a project, I would tell them to pick a topic that interests them. It will make their project a lot more enjoyable as you may be spending a lot of time working on it.

#### Awards

#### Value

Excellence Award - Intermediate - Bronze Medal Sponsor: Youth Science Canada	
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
Total	\$1 000