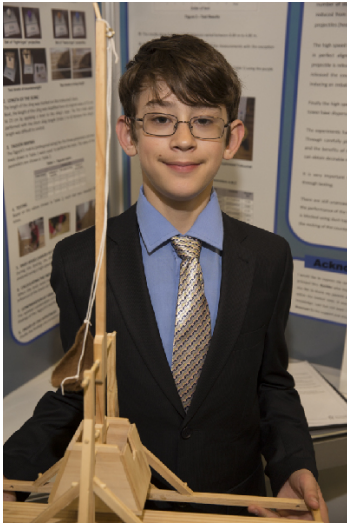


# CWSF 2016 - Montreal, Quebec



## David Vidican

### TAGUCHI Method Applied for Optimizing the Performance of a Trebuchet

**Challenge:** Discovery

**Category:** Junior

**Region:** Bay Area

**City:** Oakville, ON

**School:** St. Matthew

**Abstract:** The scope of the project was to optimize the performance of a trebuchet by applying specific Design of Experiments techniques. The Taguchi method was applied in determining the best combination between payload weight, trebuchet's counterweight and sling length. In addition the data gathered from a high speed camera was used to explain the difference in projectile travel distance.

#### Biography

My name is David Vidican and currently, I am in grade 7 at St. Matthew Catholic School in Oakville, Ontario. From a young age I was passionate about science, engineering and nature. I like to get involved in helping the community with different activities like food bank collections, Earth Day and fundraising events. For the last 2 years I have been volunteering with a science club, where I assist with ideas for the programs and help during the science experiments. Two years in a row, I won first place in the science competition at the National Engineering Month organized by Professional Engineers Oakville Chapter. I hold a Black belt in Tae Kwon Do and I like basketball. This is my first time participating in CWSF and I am looking forward to this amazing experience.

#### Awards

#### Value

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