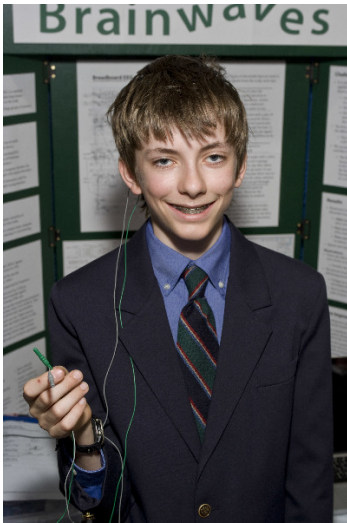


# CWSF 2010 - Peterborough, Ontario



## Tristan Hume

### Brainwaves

**Division:** Life Sciences

**Category:** Junior

**Region:** Ottawa

**City:** Ottawa, ON

**School:** Bishop Hamilton Private

**Abstract:** I built and programmed a cost-effective Electroencephalograph (EEG) that connects to a laptop. Electroencephalographs measure electrical signals from the brain via electrodes on the head. The end goal is to use the brainwaves to control a computer or other device. I also studied the challenges faced when building an EEG

### Biography

Tristan has attended Bishop Hamilton Montessori School in Ottawa since he was three years old. About that same time, he started the family's immense Lego collection. In grade 3, he built his first school Science Fair project - a Robotic Cane for the blind. Last year was his first official year of Regional competition, in the Junior Engineering category with his Arduino-based Galvanic Skin Response system. He really made his research participants sweat! Tristan loves Popular Science magazine, and now also subscribes to Wired. He keeps up his Apple knowledge with Mac Life. This spring, he's training for a week-long bicycle trip in June and his Red Belt in Taekwon-Do. You can check out his website at:  
<http://tristan.hume.ca>

Youth Science Canada  
PO Box 297  
Pickering ON L1V 2R4  
[www.youthscience.ca](http://www.youthscience.ca) / [info@youthscience.ca](mailto:info@youthscience.ca)  
416-341-0040