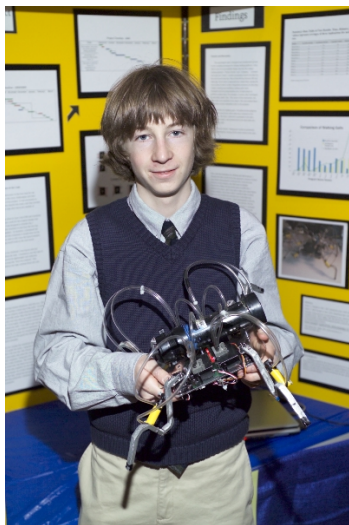


# CWSF 2006 - Saguenay, Québec



## Casey Banner

### Thoughts on 'Bots' 3: Quadruped Robotics

**Division:** Health Sciences

**Category:** Intermediate

**Region:** Pacific Northwest

**City:** Smithers, BC

**School:** Smithers Secondary

**Abstract:** A prototype quadruped robot was designed and constructed using servo, pneumatic, and programmable microcontroller technology. The robot was used to design and test two contrasting walking gaits programmed in OOPic-Basic, using subroutines containing complex algorithms for improved efficiency. The "alligator-based" gait proved the most effective in maintaining stability and speed.

Awards	Value
The University of Western Ontario Scholarship Silver Medallist - \$1500 Entrance Scholarship Sponsor: University of Western Ontario	\$1 500
Silver Medal - Engineering - Intermediate Sponsor: Youth Science Foundation Canada	\$700
Total	\$2 200