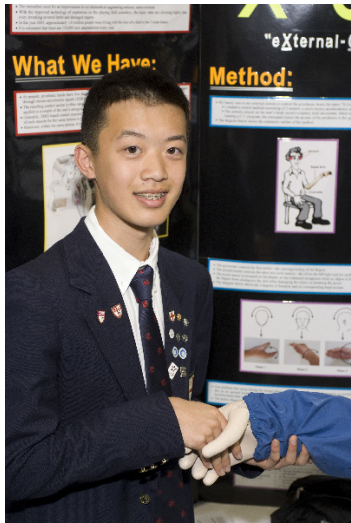


# CWSF 2009 - Winnipeg, Manitoba



## Alex Yang

### X-CoP 102 - "eXternal COnTrolled Prosthesis"

**Division:** Health Sciences / Automotive

**Category:** Junior

**Region:** Greater Vancouver

**City:** Vancouver, BC

**School:** St George's School

**Abstract:** This project presents an experimental investigation on a novel interface for controlling prostheses using voluntary head movements. After developing an interface with a five-fingered, 3-degree-of-freedom, upper-limb prosthesis, I explored three head movements. Comparative experimental trials were conducted on subjects using this interface. My interface proved feasible, simple, and accurate. Broadening the field of biomechanics, this project also aids underprivileged victims in 3rd world countries.

#### Biography

My name is Alex and I'm in Grade 8 at St. George's School, one of the best private schools in Canada. I am currently the grade representative and was the Head Boy of the Junior School last year. At school, I am involved in sports like basketball, rugby, track, and rowing. Extra-curricular activities I am involved in are Model UN, public speaking, fundraising, and many more. I created a group to help fundraise for Free The Children, an organization started by youths. I am a person that is interested in hands-on activities and am very keen to learn kinesthetically. Some of the many subjects I'm interested in are Chemistry and Math. I won a silver medal at last year's Canada Wide Science Fair in Ottawa and I hope to do well this year too.

#### Awards

#### Value

Honourable Mention - Engineering - Junior Sponsor: Youth Science Canada	\$100
<b>Total</b>	<b>\$100</b>