

# CWSF 2014 - Windsor, Ontario



## Roman Kozak

### VAVI: Virtual Aid for the Visually Impaired

**Challenge:** Innovation

**Category:** Intermediate

**Region:** Niagara

**City:** Grimsby, ON

**School:** Grimsby S.S.

**Abstract:** When used by a blind individual, this device will replace the traditional White Cane. Furthermore when connected to my smartphone application, the device acts as a personal assistant, responding to many commands said by the user, such as, "call <contact name>", "what is my current location", "take me to <address>", along with others. When the user speaks a address the device will provide audible directions.

### Biography

Roman's passion for designing and building electronics began at age 7, when he turned a small, old fan into a plane and watched it crash. Thereafter, he took apart everything inside and outside his home, including the family computer. By age 11, Roman was tinkering with micro controllers. Over the years, he taught himself how to program and design by reading books and watching on-line tutorials from other "makers" across the globe. Today inspiration often comes from Jeremy Blum, recent graduate of Cornell University in Electrical Engineering and hardware hacker on the Google Glass team. He is Co-Founder of Geek Terrain, a technology blog that covers everything new in gadgets, consumer electronics and science. Roman worked at the University of Michigan during a summer internship in Aerospace Engineering and hopes to study electrical and software engineering. A Grade 10 student, Roman lives on farm with a dog, 2 ponies, 4 Nubian goats and, in his spare time, he rows, swims, referees hockey, and bikes.

### Awards

### Value

Excellence Award - Intermediate - Silver Medal Sponsor: Youth Science Canada	\$300
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
<b>Total</b>	<b>\$2 300</b>