

CWSF 2012 - Charlottetown, Prince Edward Island



Jamil Merali

"Shoe" Me the Haptic Way

Challenge: Innovation

Category: Intermediate

Region: North Bay

City: Corbeil, ON

School: West Ferris S.S.

Abstract: The Haptic Shoe can direct a person to his destination using haptic feedback. The Haptic Shoe has a GPS receiver, a compass module and an ultrasonic sensor. These three sensors feed data to a microcontroller programmed with a waypoint which can then trigger vibrational motors inside the shoe. These motors notify the users of any obstacles and lead them to their destination seamlessly.

Biography

My name is Jamil Merali and I am 14 years old. I attend West Ferris Secondary School in North Bay, Ontario. I enjoy Science and look forward to Science Fair every year. This year, the inspiration for my project stemmed from a problem faced by a family friend. To solve a real problem, one has to investigate many ideas and then develop one that is suitable for that particular problem. In my case I hope that the Haptic shoe will solve a problem faced by many people. I would like to investigate it further by having the Haptic shoe used by many people. The main advice I would give to other students is, do not give up. There are many obstacles that many arise when testing your hypothesis, but that is what Science is all about; for every problem there are numerous answers, you just have to figure out the one that best suits your experiment. When I am not working on Science projects, I enjoy working on computers, reading, watching TV, biking, and spending time with friends. In the future I would like to excel in engineering and electronics.

Awards

Value

Excellence Award - Intermediate - Gold Medal Sponsor: Youth Science Canada	\$1 500
Western University Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: Western University	\$4 000
Total	\$5 500