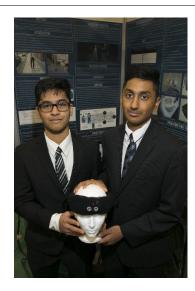




## CWSF 2017 - Regina, Saskatchewan



**Biographies** 

## Rushi Gandhi, Saharsh Hariharan

HapticNav: A Vibrotactile Navigation System for the Visually

**Impaired** 

Challenge: Innovation Category: Senior Region: Peel

City: Brampton, ON, Mississauga, ON

School: Chingacousy S.S., The Woodlands School

Individuals who experience visual impairment have a difficult time Abstract:

> navigating independently. To solve this problem, a navigation system, consisting of a hardware device and an Android application, that could guide visually impaired individuals to their desired destination was created. The system uses haptic feedback through vibration patterns to guide individuals. The system was proven to be 100% accurate when tested on

visually impaired individuals.

Rushi - I am a grade 11 student at	
Chinguacousy Secondary School's science	
and technology program. My love for science,	
engineering, and entrepreneurship has led	
me to participate in numerous extracurricular	
activities, for instance, the Vex Robotics	
Competition, DECA Business Competition,	
and various hackathons. Throughout my high	
school career, I started my school's computer	
science club and was an executive member	
of my school's SciTech council. As a	
passionate athlete, I play for my school's	
volleyball, cricket, and soccer teams. One of	
my notable experiences was going to Google	

the engineers that wor... Saharsh - Hi, my name is Saharsh Hariharan. I am a grade 11 student at the Woodlands School. This is my fourth year at the Canada Wide Science Fair, and I am excited to be back again. My project this year is an innovation, which is called HapticNav. My partner and I created a navigation system that consists of an Android application and a headband, which is able to guide individuals using Haptic Feedback. In the future we plan to patent the device, and make it produce even more energy. At school I am mostly interested in Science and Technology related courses, which is why I choose to attend the science fair. Within school, I do participate in a lot of...

Canada and getting a chance to learn from

Awards	Value
Youth Can Innovate Awards - Senior	\$1 000
Sponsor: The Gwyn Morgan and Patricia Trottier Foundation	
Youth Can Innovate Awards - Senior	\$7 000
Sponsor: The Gwyn Morgan and Patricia Trottier Foundation	
Excellence Award - Senior - Gold Medal	\$250
Sponsor: Youth Science Canada	
Dalhousie University Faculty of Science Entrance Scholarship	\$5 000
Senior Gold Medallist - \$5000 Entrance Scholarship	
Sponsor: Dalhousie University, Faculty of Science	
UBC Science (Vancouver) Entrance Award	\$4 000
Senior Gold Medallist - \$4000 Entrance Scholarship	
Sponsor: The University of British Columbia (Vancouver)	
University of Manitoba Entrance Scholarship	\$5 000
Senior Gold Medallist - \$5000 Entrance Scholarship	
Sponsor: University of Manitoba	
University of Ottawa Entrance Scholarship	\$4 000
Senior Gold Medallist - \$4,000 Entrance Scholarship	
Sponsor: University of Ottawa	
Western University Scholarship	\$4 000
Gold Medallist - \$4000 Entrance Scholarship	
Sponsor: Western University	
Total	\$30 250



Youth Science Canada PO Box 297 Pickering ON L1V 2R4 www.youthscience.ca / info@youthscience.ca 416-341-0040

