

## CWSF 2014 - Windsor, Ontario



### Gurmeen Banipal, Charanpreet Mahal

#### Sensing Beyond the Way

**Challenge:** Innovation

**Category:** Senior

**Region:** Fraser Valley

**City:** Abbotsford, BC

**School:** W J Mouat Secondary

**Abstract:** In this project, we have created three navigation devices for the visually impaired, which allow them to move independently while reducing the risk of injury. Twelve subjects were tested using these devices in an obstacle course in order to determine the accuracy and navigation speed. These devices are low of cost, and conventional tools for visual navigation at a global level.

#### Biographies

Gurmeen - My name is Gurmeen Kaur Banipal. I am a grade 11 student at WJ Mouat Secondary, in Abbotsford, British Columbia. Science has always been my passion, even as I child when I operated on remote controls and performed surgeries on toasters. The quote, "Always aim for the Moon, even if you miss, you'll land among the stars" strongly influences my life. I have actively involved myself in both school and community initiatives. At school I am an executive member of the "Character Council", and also contribute as a member of the Senior Leadership group. Outside of school, I volunteer with Abbotsford Community Services, and Menno Residential H...

Charanpreet - My name is Charanpreet Mahal. I'm currently a Gr.11 student at W.J. Mouat Secondary, Abbotsford, B.C. I'm a girl with an exuberant attitude and good work ethics. I love experiencing new things, new foods, and new places. Curiosity has always dominated my mind, I guess this why science attracts me so much. Other than science some of my interests include reading, baking, music, swimming and travelling. Besides this I'm also an active member of both the school and the community. I strongly believe in the saying: "You must be the change you want to see" and this why I love taking initiative to do things for others. My passion for the study of sci...

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