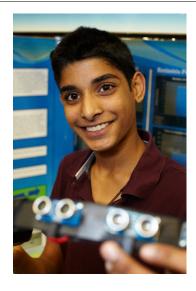




## CWSF 2012 - Charlottetown, Prince Edward Island



## **Alexander Deans**

iBELT: Training the Ear to See!

Challenge: Innovation
Category: Intermediate
Region: Windsor
City: Windsor, ON

**School:** Academie Ste. Cecile International

Abstract: An inexpensive novel, user-carried device (iBELT) was created to map the

visually impaired user's environment using four ultrasonic sensors. Distances to obstacles were converted to audible frequencies, forming a "sound map". Twenty volunteers and a retinitis pigmentosa patient were tested on an obstacle course while navigating blindly, with one sensor, and the iBELT. The iBELT improves safety and speed, and is the most efficient

device.

## **Biography**

My name is Alexander Deans, and I am in Grade 9 at Academie Ste. Cecile International School, Windsor, ON. I love playing many sports, including soccer, hockey, tennis, volleyball, sailing, and skiing. I also play the acoustic guitar and piano. I enjoy working with animals, and I have a bearded dragon. I recently competed in the International Children's Games in Kelowna, B.C., against youth from over 14 countries around the world!

Awards	Value
Excellence Award - Intermediate - Silver Medal	\$700
Sponsor: Youth Science Canada	
Western University Scholarship	\$2 000
Silver Medallist - \$2000 Entrance Scholarship	
Sponsor: Western University	
Total	\$2 700



