

CWSF 2009 - Winnipeg, Manitoba



Arik Milner

eMission Impossible: Detecting Pollution with Laser Light

Division: Health Sciences / Environmental Innovation

Category: Junior

Region: Greater Vancouver

City: Vancouver, BC

School: Point Grey Secondary

Abstract: A prototype device that detects water pollution using laser light is built. It utilizes a physical principle of light scattering off small particles. A cheap webcam, controlled by computer, takes an image of scattered light. Software program analyzes the image and decides whether to trigger a pollution alarm. In the future, the device will be expanded to detect pollution in air and identify pollutants.

Biography

I was born in Israel in 1996. We moved to the US with my parents in 1998. Lived in Austin, TX and Highland Park, NJ. In 2004, we moved to Vancouver. I have one brother, who is 15. My hobbies are: chess, tennis, skiing, skateboarding, reading.

Awards

Value

The University of Western Ontario Scholarship	\$1 500
Silver Medallist - \$1500 Entrance Scholarship Sponsor: University of Western Ontario	
Honourable Mention - Environmental Innovation - Junior Sponsor: EnviroExpo, Presented by VIA Rail Canada	\$100
Silver Medal - Engineering - Junior Sponsor: Youth Science Canada	\$700
Total	\$2 300