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 Silver Medallist - $1500 Entrance Scholarship Sponsor: University of Western Ontario	$1 500
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