

CWSF 2016 - Montreal, Quebec



Elias Andersen

You're Out! An Electronic Baseball Umpire

Challenge: Innovation

Category: Intermediate

Region: Simcoe County

City: Meaford, ON

School: Pretty River Academy

Abstract: An electronic baseball umpire was first created using microphones and sound triangulation. A simple program using math equations was developed that could accurately call where and when each sound originated. This was tested with humans on a baseball field and a much more complex program was then written in Objective-C using Xcode. This program outputs exact locations of the sounds as a visual display.

Biography

My name is Elias Andersen and I am a grade ten student at Pretty River Academy in Collingwood, Ontario. I have gone to two previous Canada-Wide Science Fairs; winning a gold and a bronze medal. Science, math and physical education are my favourite subjects at school. In my spare time I love playing and watching all sports, which led to this year's innovation. Last year in the MLB playoffs, the Toronto Blue Jays had a review that lasted almost 50 minutes. I thought, "there has to be a better way" and with that, my science idea was born. This year I was able to combine both my passions, baseball and science, to create an electronic baseball umpire which could accurately call safe and out. In the future I plan on continuing to develop this project. This summer I am heading to Lakehead University to participate in the SHAD program where I am excited to meet other young scientists and further my science education. In two years I plan on attending university and studying science.

Awards

Value

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