

CWSF 2013 - Lethbridge, Alberta



Aleksa Bjelogrljic

Arduino Based Medical Emergency Response System

Challenge: Health

Category: Intermediate

Region: London District

City: London, ON

School: Central S.S.

Abstract: The Arduino Based Medical Emergency Response System is a system for autonomous detection and response to medical emergencies. This is achieved by reading the heart rate of the user and detecting abnormalities in it. When abnormalities are detected, 911 is called by a cellular module and a message is sent that includes the nature of your emergency, your location and a description of your appearance.

Biography

I am Aleksa Bjelogrljic, a grade nine student at Central Secondary School in London, Ontario. I have been coding and programming since I was ten years old and learning about the hardware side of computing since I was eight. My education plans are to graduate high school in three years and get majors in electrical engineering and software engineering. I have been to my regional science fair three times and this is my first Canada wide science fair. In my free time, I like to enjoy a good book, play some paintball with my friends and develop my indie game. I got the idea for my science fair project after my grandmother had a cardiac arrhythmia. She went two days without seeing a doctor, because she thought it was not serious. This left me wondering, how many other people would not see a doctor or call 911 due to this same kind of thinking? To expand my project, I wish to make a single circuit board that contains all the components in my project and then patent it. My advice for other students is to relate your project to something you are passionate about, than the work becomes fun.

Awards

Value

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| Excellence Award - Intermediate - Bronze Medal Sponsor: Youth Science Canada | \$100 |
| Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University | \$1 000 |
| Total | \$1 100 |