

CWSF 2016 - Montreal, Quebec



Noah Wamboldt

Mechanical Boots

Challenge: Innovation

Category: Intermediate

Region: Prince Edward Island

City: Summerside, PE

School: Three Oaks Senior High School

Abstract: This Project was based around building a pair of mechanised boots that enables the user to run at a greater efficiency. The design was based upon the muscle and tendon structure of a kangaroo. It was tested by performing various speed and spring compression tests. In conclusion the boots enabled the user to run 25% faster and had an energy efficiency rate of 85%

Biography

My name is Noah Wamboldt and I am 15 years old, I attend Three Oak Senior High School in Summer side, Prince Edward Island. I am currently on the basketball team, Envirothon team and go to Cadets. My hobbies mostly consist of taking apart machines and electronics to figure out how they work and building machines out of scrap, I also enjoy going in the forest. My anticipated career path is to enroll into mechanical engineering and become a robotic engineer. I got the inspiration for my project from a National Geographic documentary called "The Kangaroo King". My plans to continue the project would be to investigate the change in efficiency over long distances and to build a third prototype out of better materials. If I were to give advice to any future science fair participants it would be to go by the engineering motto, give yourself twice as much as you think it will take to compete. If you think it will take two months to complete give yourself four.

Awards

Value

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