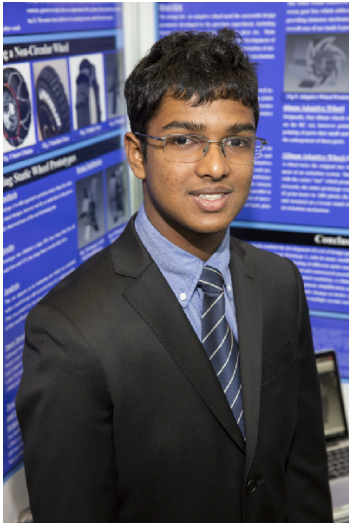


CWSF 2015 - Fredericton, New Brunswick



Tahmid Khan

Adaptive Wheel

Challenge: Innovation

Category: Intermediate

Region: Calgary Youth

City: Calgary, AB

School: Queen Elizabeth Junior Senior High School

Abstract: Consumer wheels are a compromised design built to function on multiple surfaces with a strong bias to road use thus severely limiting off road performance. In this project, static wheel prototypes were built to develop ideal snow driving design characteristics which were then used on an adaptive wheel model. A power system was developed to actuate the transformation of the wheel.

Biography

My name is Tahmid Khan. I'm a grade 9 student from Calgary, Alberta with a passion for engineering. Over the last few years, I have been able to indulge my passion through participating in the Calgary Youth Science Fair, where I have won top elementary and intermediate project and innovation awards. Last year, I was also able to participate in the Canada Wide Science Fair, where I have won a silver medal. I also have a strong love for automobiles which initiated this project when I observed cars getting stuck during heavy snowfalls in my home city. My solution, Adaptive Wheels, is a radical alternative to the status quo and offers many benefits. Complementing my interest in engineering is my love of robotics which has prompted me to participate in various tournaments including the FIRST Robotics Calgary Regional Competition. I also take a great interest in music and debate. I play the bari sax in my school's high school band and have participated in Alberta Speech and Debate tournaments over the last few years. Overall, I'm very excited about the CWSF in Fredericton and am hoping for the best!

Awards

Value

Engineering Innovation Award - Intermediate Sponsor: The Engineering Institute of Canada	\$750
Excellence Award - Intermediate - Silver Medal Sponsor: Youth Science Canada	
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
Total	\$2 750