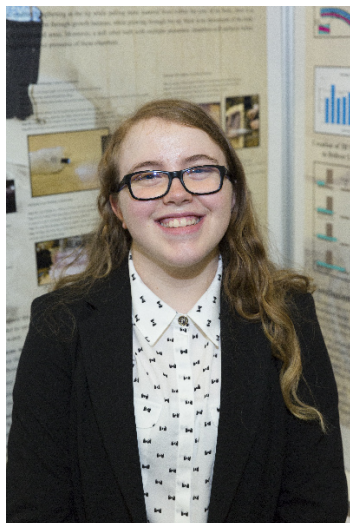


CWSF 2018 - Ottawa, Ontario



Catalina van der Raadt

Soft Pneumatic Robot

Challenge: Innovation

Category: Intermediate

Region: Calgary Youth

City: Calgary, AB

School: Webber Academy

Abstract: Robots are known to move through locomotion, by wheels, treads, walking, etc. This project aimed to create and test a robot that follows a new branch of robotic movement - soft, growing robots. This robot, which moves through the principle of eversion, was put through a series of experiments to test its adaptability and discover its applications in the real world.

Biography

My name is Catalina van der Raadt and I'm a grade 9 student at Webber Academy in Calgary, Alberta. I love the sciences, especially biology and astronomy, as well as mathematics. In my free time, I love to draw and do research in medicine and the nature of living things. My dream career is in medicine and animals, but I am not sure specifically what yet. This year, my project is about a soft pneumatic robot that navigates its environment much like a plant or a cell. I was inspired by my observations in nature as well as in bio-robotics. I have been participating in science fair for four years now, and over the years I have won The Hripko Science Award (2015), Devon Senior Environmental Award (2016), Grant MacEwan Nature Protection Award for High Scoring Secondary Environmental Conservation Project (2016) and the Schulich School of Engineering Second Prize (2018). This year, I was given the great opportunity to be part of Team Calgary and participate in the Canada Wide Science Fair, and I couldn't be more excited to see what incredible projects I will learn about in Ottawa.

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