

CWSF 2019 - Fredericton, New Brunswick



Riley Oldford

Brace Yourself!

Challenge: Health

Category: Junior

Region: Yellowknife

City: Yellowknife, NT

School: William McDonald School

Abstract: I have a connective tissue disorder and cerebral palsy, which results in my knees hyperextending, as well as putting them in a valgus position. This puts me at risk of serious damage to my knees. The purpose of this project was to determine if wearing custom KAFOs would prevent hyperextension, and improve the stability of my knees, and thus reducing the risk of knee damage.

Biography

I am a Grade 8 student attending École William McDonald School in Yellowknife, Northwest Territories. I have chronic lung disease, cerebral palsy and a connective tissue disorder. I use a wheelchair, walker, and crutches to help me get around. I am a huge Calgary Flames fan, and enjoy playing sports such as sledge hockey (para ice hockey), and most recently table tennis. I am also an avid reader, and am interested in aviation, military, and fire/rescue services. I am becoming aware of accessibility issues and concerns, and am interested in pursuing a career as a biomedical engineer, or an architect with a focus on universal design. I am intrigued by how technology can help support mobility and movement. Last year for the CWSF in Ottawa, I researched and completed an experiment on the effectiveness of different crutch tips on wet surfaces. My project this year is about how orthotics help improve stability while standing and walking. I recommend when choosing a topic for any project, it helps to have a strong personal connection and a practical application for life. I am thrilled for the opportunity to go to Fredericton!

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