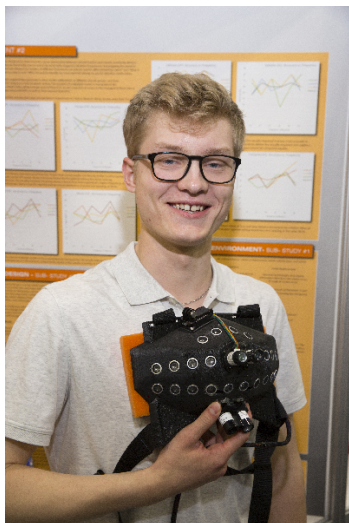


# CWSF 2019 - Fredericton, New Brunswick



## Manning Whitby

### An Interpretation of Life Through Vibration Motors

**Challenge:** Innovation

**Category:** Senior

**Region:** Toronto

**City:** Toronto, ON

**School:** Danforth Collegiate & Technical Inst.

**Abstract:** This research focused on developing an advanced wearable aid, that provides blind and visually impaired individuals greater spatial perception, through tactile feedback. The design focuses on improving the generally low quality of life, in the target population, through addressing challenges faced socially and with current navigation tools. The device is unobtrusive and gives users the freedom to navigate environments with greater independency, confidence, and comfort.

### Biography

Ever since I was a young kid my passions have always been deeply rooted in technology and management. This project has been amazing, so far, in paving a foundational path for which I plan to continue pursuing in the future. The goal for future work is to design the device to implement "smart" learning algorithms that filter, and relay collected data to the user, more efficiently and effectively; collected by more advanced sensor technology. In hopes to design a viable to solution for which individuals with visual impairments trust the reliability of, to use in their day-to-day life. However, my attention hasn't always been focused on this type of work. I previously trained with Toronto Swim Club at a National Level, ranking top-10 in Canada for a couple of my best events. Training was rigorous, with a schedule consisting 8-practices a week, each 2-hrs, with only one month off training. I loved the environment but transitioned to focus solely on my long-term goals in pursuing technology. My advice for prospective entrepreneurs is to PLAN EVERYTHING. Life is a game; you must know the rules and players deeply in order to plan a trajectory to reach the POTENTIAL YOU.

### Awards

### Value

European Union Contest for Young Scientists - Trip to EUCYS Sponsor: The Gwyn Morgan and Patricia Trottier Foundation	\$3 000
Ted Rogers Innovation Awards - All categories Sponsor: Rogers Communications Inc.	\$2 000
Excellence Award - Senior - Gold Medal Sponsor: Youth Science Canada	
Challenge Award - Innovation - Senior Sponsor: Youth Science Canada	
Dalhousie University Faculty of Science Entrance Scholarship Senior Gold Medallist - \$5000 Entrance Scholarship Sponsor: Dalhousie University, Faculty of Science	\$5 000
UBC Science (Vancouver) Entrance Award Senior Gold Medallist - \$4000 Entrance Scholarship Sponsor: The University of British Columbia (Vancouver)	\$4 000
University of Manitoba Entrance Scholarship Senior Gold Medallist - \$5000 Entrance Scholarship Sponsor: University of Manitoba	\$5 000
University of New Brunswick Canada-Wide Science Fair Scholarship Gold Medallist - \$5000 Entrance Scholarship Sponsor: University of New Brunswick	\$5 000
University of Ottawa Entrance Scholarship Senior Gold Medallist - \$4,000 Entrance Scholarship Sponsor: University of Ottawa	\$4 000
Western University Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: Western University	\$4 000
Youth Can Innovate Awards - Senior Sponsor: The Gwyn Morgan and Patricia Trottier Foundation	\$1 000
Youth Can Innovate Awards - Senior Sponsor: The Gwyn Morgan and Patricia Trottier Foundation	\$7 000
Platinum Award - Best Senior Project Sponsor: Youth Science Canada	
<b>Total</b>	<b>\$40 000</b>

Youth Science Canada  
PO Box 297  
Pickering ON L1V 2R4  
www.youthscience.ca / info@youthscience.ca  
416-341-0040