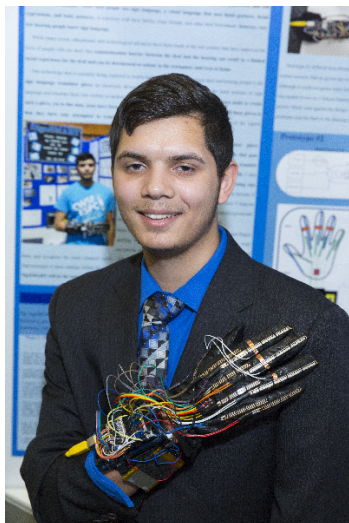


CWSF 2018 - Ottawa, Ontario



Ahmad Ali

SignSMART: Glove Translates ASL Fingerspelling into Text and Speech

Challenge: Innovation

Category: Senior

Region: Windsor

City: Windsor, ON

School: Massey S.S.

Abstract: The goal of this project is to create a wearable interactive glove that can effectively translate the letters in American Sign Language (ASL) into text and speech by interfacing with the user's hand and tracking the position of the fingers, inertial movement, and the orientation of the hand.

Biography

Ahmad Ali is a student at Massey High School in Windsor, Ontario. This is his third opportunity to participate in the Canada Wide Science Fair. Ahmad enjoys participating in hack-a-thons and would like to study engineering in the future. His previous projects included creating a microbial fuel cell using waste water in order to create electricity and a plant microbial fuel cell that used plants to create electricity. His current project is the SignSmart glove, a wearable technology that translates letters from the American Sign Language (ASL) alphabet into text and speech. With the creation of this glove, he hopes to be able to create a better sign language translator glove that goes beyond just translating manual letters but can eventually translate other signs as well. His goal is to use the SignSMART glove as a tool to bridge the communication gap between the hearing and non-hearing and envisions that one day SignSMART will be used not only as a translator, but also as a tool for learning sign language. Ahmad encourages students interested in participating in the Canada Wide Science Fair to start participating in Science Fairs at an early age in order to build expertise and confidence.

Awards

Value

University of Ottawa Undergraduate Research Scholarship Award Senior Sponsor: University of Ottawa, Faculty of Science	\$10 000
Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada	
Carleton University Entrance Award Senior Bronze Medallist - \$1,000 Entrance Award Sponsor: Carleton University	\$1 000
University of Ottawa Entrance Scholarship Senior Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Ottawa	\$1 000
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
Total	\$13 000