

# CWSF 2019 - Fredericton, New Brunswick



## Ahmad Ali

### SignSMART V.2

**Challenge:** Innovation

**Category:** Senior

**Region:** Windsor

**City:** Windsor, ON

**School:** Massey S.S.

**Abstract:** My project, the SignSMART V.2 glove, enables people with communication disorders to communicate effectively by having their gestures translated into text and speech. I hope to improve upon similar gloves by using machine learning to create a database that accommodates both ASL and customized gestures and by creating a novel learning app that uses the glove to teach people how to communicate by using ASL.

### 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

Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada	
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
<b>Total</b>	<b>\$2 000</b>