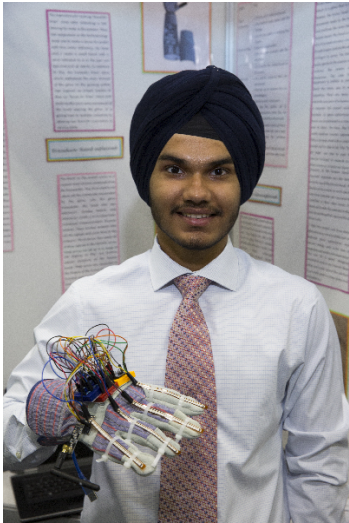# CWSF 2019 - Fredericton, New Brunswick

Mankeerat Singh Sidhu

A Hand for Hope

Challenge: Innovation
Category: Intermediate
Region: South Fraser
City: Surrey, BC
School: Khalsa School (Surrey)

Abstract: A Hand for Hope translates all the signs and movements made on one hand, using a glove, to the bionic hand. The bionic hand has multiple uses, such as space exploration, marine biology, work in nuclear and other factories, in medical fields i.e. surgery and for amputees. It is giving hope to multiple industries by opening new doors for innovation in various fields.

Biography

My name is Mankeerat Singh Sidhu and I am a 15-year-old male. I live in Surrey, B.C. and I pursue education in Khalsa Secondary school. I got the inspiration of making "Hand for Hope" after attending a UBC Geering Up camp in the summer. Their last assignment in the Biotechnology camp was to make a device for people with fine motor deficiency. Me and my team made a small hand with a servo attached to it so the user can type and pick up objects. In addition to this my project was also inspired by the Nintendo Power Glove which implements the same moment of the glove on the gaming system. Similar to that my "Hand for Hope" copies and performs the exact same movements of the hand wearing the glove. In future applications, this hand is capable of helping in tasks such as space exploration, marine biology, work in nuclear and other factories, in medical fields i.e. surgery and for amputees. It is giving hope to multiple industries by opening new doors for innovation in various fields.

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