

CWSF 2018 - Ottawa, Ontario



Shail Giroux

GGATS: GPS Guided Autonomous Transport System

Challenge: Innovation

Category: Junior

Region: Algoma Rotary

City: Sault Ste Marie, ON

School: Korah Collegiate & Vocational School

Abstract: GGATS is a GPS Guided, autonomous transport system to assist the small family orchard during the hand picked fruit harvesting season. My robot, carrying a bin to hold the fruit, follows an app installed on a phone that the worker carries. The app sends the GPS coordinates of the phone, to the robot, via bluetooth streaming; the phone moves, the robot will follow, assisting harvesting.

Biography

My name is Shail Giroux, I am a Grade 8 student at Korah Collegiate in Sault Ste Marie, Ontario. I have been involved in Vex Robotics for the last 5 years, the last 3 years winning the Northern Ontario Excellence Award and this year, my team qualified for the World Vex Robotics Championship by winning the Engineering Design Award. I am a member of the race team at the Soo Finnish Nordic Ski club. I have attended several races, including the Ontario Winter Games this year. The inspiration for my project came from hearing about the struggles of the small family farm in the news. I reached out to two small family farm owners. Through interviews and consultation to determine needs, and my abilities, I came up with the idea for an Autonomous Transport System to assist in the hand picking berry process. I plan to add other features to this robot, including obstacle avoidance with an Ultrasonic Distance Sensor, and movement between GPS waypoints. These will both greatly benefit the small family farm. The advice I would give to any student is first, find something that interests you, and move forward with your best effort.

Awards

Value

S.M. Blair Family Foundation Award - Junior Sponsor: S.M. Blair Family Foundation	\$500
Excellence Award - Junior - Gold Medal Sponsor: Youth Science Canada	
Western University Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: Western University	\$4 000
Total	\$4 500