

CWSF 2016 - Montreal, Quebec



Brenton Sutherland

Safe Skies

Challenge: Innovation

Category: Senior

Region: Strait

City: Port Hood, NS

School: Dalbrae Academy

Abstract: A low-cost LiDAR scanner was developed that allows semi-autonomous UAVs to move out of the path of obstacles, and fully autonomous UAVs to adjust their course plan around detected obstacles. Testing was conducted in simulation and on a DJI Flamewheel F550 hexacopter. An online database was created where mapping data can be shared among UAVs.

Biography

I am Brenton Sutherland, a grade 12 student at Dalbrae Academy, and a resident of Port Hood, Nova Scotia. In my spare time I enjoy programming, robotics, mathematics, and robotics. In the fall I will be studying Software Engineering at the University of Waterloo. The idea for this year's project emerged through discussions with UAV professionals at the 2015 CWSF in Fredricton.

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
Total	\$2 000