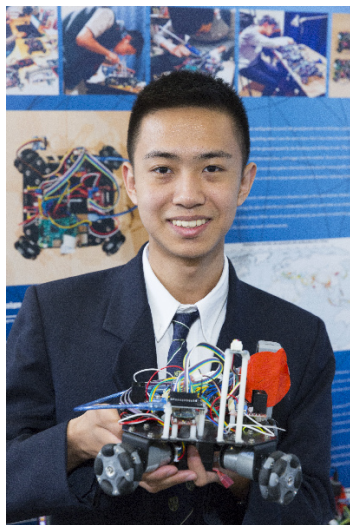


## ESPC 2018 - Ottawa (Ontario)



### Albert Yang

#### Control for Groups of Robots - Collaborative Search and Rescue

**Défi:** Innovation

**Catégorie:** Sénior

**Région:** Vancouver Island

**Ville:** Vancouver, BC

**École:** Glenlyon Norfolk School

**Sommaire:** In this project, I designed a group of robots to do collaborative search and rescue in ruins caused by natural disasters or in extreme environments. The robots can communicate and make decisions independently, dividing a rescue mission into sub-missions for everyone in the group. Once the target is found, the robot will send a message to inform others that the mission has been completed.

#### Biographie

I am a grade 11 student at Glenlyon Norfolk School in Victoria, BC. I initially developed my interest in robotics in my childhood. I remember my mother buying me some Lego when I was 4, and since then robotics has become my passion. Robotics has provided me so much happiness. As I grew older, I have started learning about more complicated robots. On May 12th, 2008, a moment that I would never forget, was when the first great Wenchuan earthquake occurred. My grandparents were in Sichuan, a place very near to the epicenter of the earthquake. I remembered the suffocating feeling when I first saw the news, where rescuers were working as groups in the hazardous environment, trying their best to save more victims. I thought if robots could do the job for humans, both safety and efficiency of completing the task could be significantly increased. I plan to do further investigations on optimizing the algorithms for the robot group to increase their analytical abilities in changing environments. Doing a project requires ones' passion and perseverance. Be bold and creative. Believe in yourself and do what you love.

#### Prix

#### Valeur

Prix d'excellence - Senior - Médaille de bronze Commanditaire: Sciences jeunesse Canada	
Bourses de l'Université Carleton Médaille de bronze, sénior - Bourse d'admission de 1 000 \$ Commanditaire: Université Carleton	1 000,00 \$
Bourse d'admission de l'Université d'Ottawa Médaille de bronze, sénior ? Bourse d'admission de 1 000 \$ Commanditaire: Université d'Ottawa	1 000,00 \$
Bourse d'études de Western University Médaille de bronze - Bourse d'admission de 1 000 \$ Commanditaire: Université Western	1 000,00 \$
<b>Total</b>	<b>3 000,00 \$</b>