McMaster Sumobot Club

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What is Sumobots?

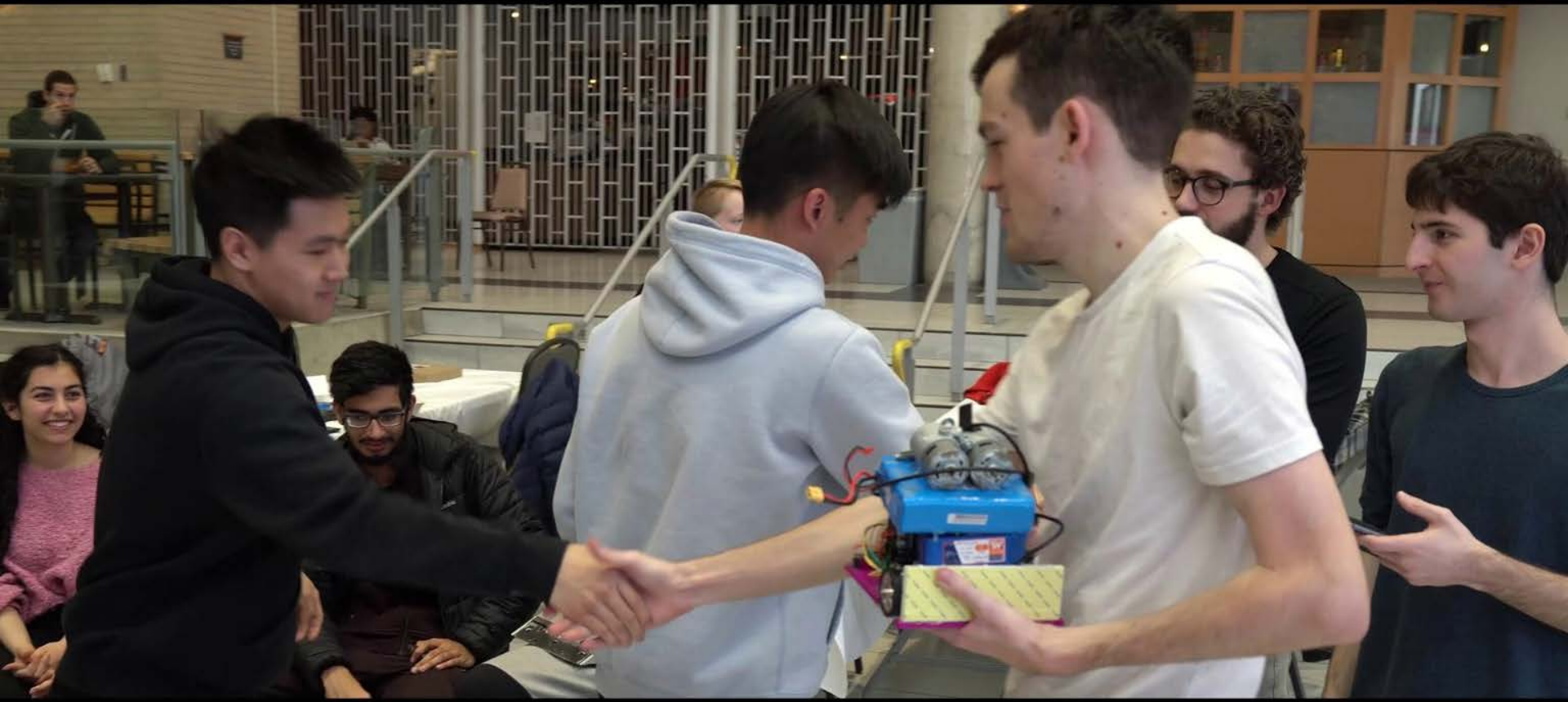
What is Sumobots?

With an annual participation of over 200 students, McMaster Sumobot provides an environment for students to engineer autonomous robots designed to compete in a tournament-style, one-on-one knock-out match against other students.

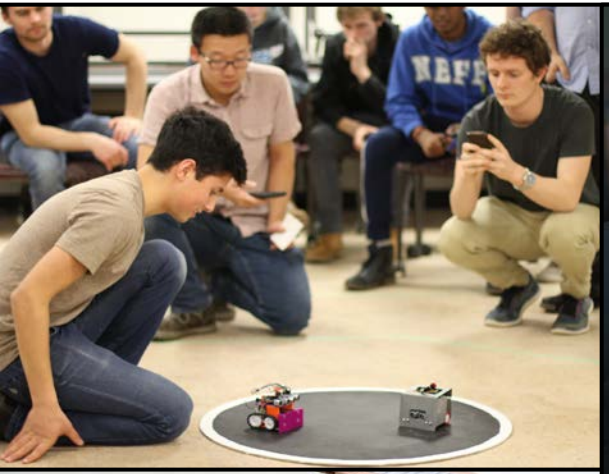
These competitions are hosted on an annual basis, in teams of up to four students, along with separate difficulty levels for both beginner and advanced participants. Assistance will be provided in forms of foundational design and technical workshops, as well as robot kits for students to gain experience in robot competition and design.

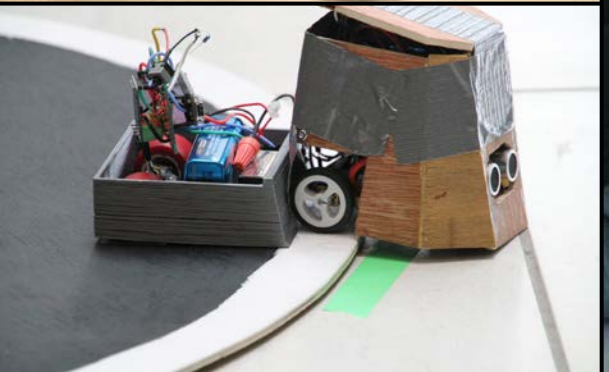
We encourage all students of varying skill levels to join and have fun whilst exploring their curiosity and creativity within the STEM discipline.

We are a competition-based club, so there will be no membership sign-up. The only registration required are workshops and competition sign-ups.



Club Participation



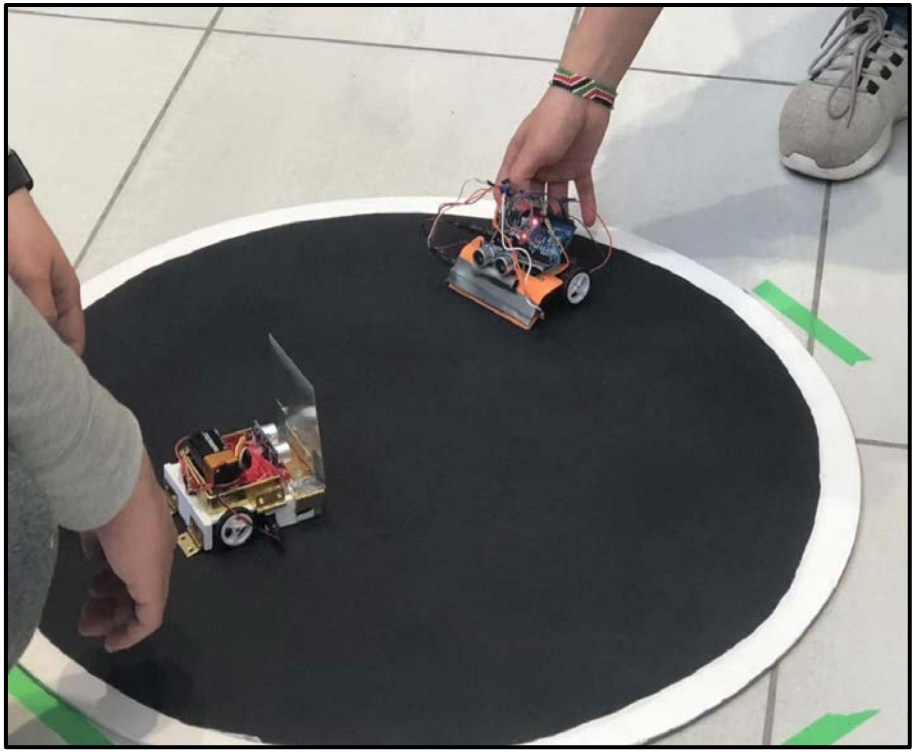


How to Get Involved

- Form teams of 1-4 people (or enter into a roster at our website)
- Register your group with Sumobots (details at the end of the presentation)
- Download the competition/showcase rulebook
- Order your parts or purchase a kit directly from us
- Attend our tutorial sessions to learn all you need to know about mechanical, electrical, and software systems for your robot

NO EXPERIENCE REQUIRED

Events



Two types of competitions are available:

- Competition
  - Advanced section
  - Beginners section
- Sumobot showcase

Different rules and regulations will be applied according to category

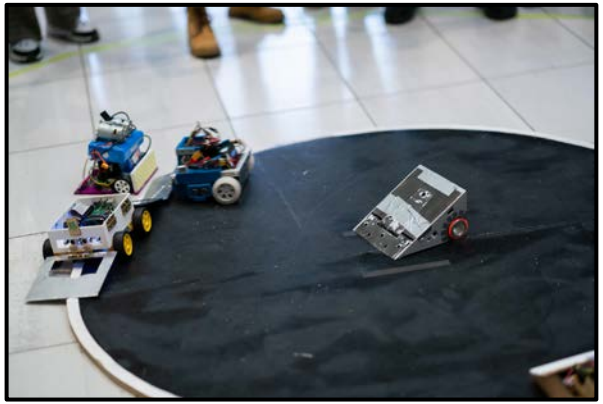
- Weight restrictions
- Technical restrictions
- Size allowance

Competition

Concrete details are still being decided

Separate events will be hosted

- Beginners competition
  - Rules and regulation can be found on our website (https://sumobot.ca/#/)
- Advanced competition
  - Fewer physical restrictions
  - Increase size and weight limit
  - Parts will not provided by sumobot unless you wish to buy the beginners kit
  - Must have participated in beginners competition



Competition Info

Rules and regulations

Advanced competition info session - October 9th

Beginners competition info session - October 23rd

Showcase

Separate showcases for both advanced and beginners categories

Will take place online during reading week of Winter 2021

Students can show off their bot through videos, photo, design overview, and live demos

Participants will be able to showcase their bot navigating through a series of obstacles using ordinary household objects

- Will be judged based on your time
- Penalties against hitting obstacles
- Categories will be awarded such as quickest bot, most creative bot, etc.

Pricing and Fees

Beginners parts kit: approximately $30

Showcase registration fee: $5*

*Students who registers for the showcase will have a $5 deductible toward the competition fee

Competition registration:

Beginners competition - $10 per bot registered

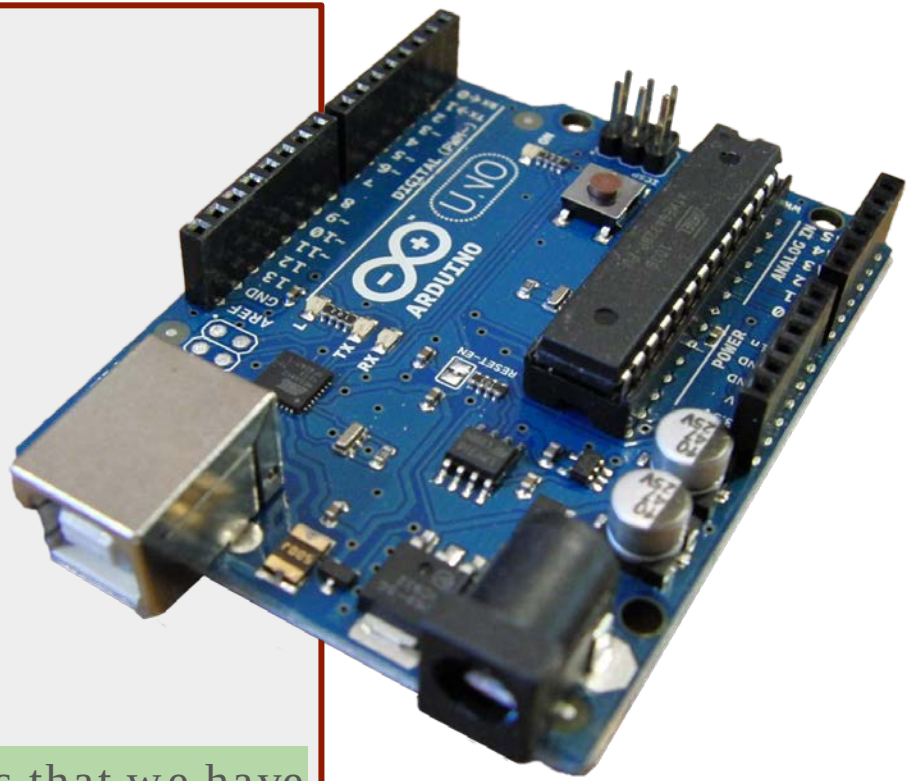
Advanced competition - $40 per bot registered

Kits

What we provide:

- Arduino Uno + Cable *
- Micro Motors
- Motor Mounts
- Motor Driver
- Wheels *
- QRD Line Sensors
- Ultrasonic Range Sensors
- Breadboard
- Resisters
- Battery clip
- Male to Female Jumper Wires

* can be customizable from the selections that we have



Tutorials & Workshops

Monthly workshops during Fall for both Beginners and Advanced

Workshop 1 (October 28) - Motor/Design Ideas

Workshop 2 (November 18) - CAD/Laser Engraving Intro

Workshop 3 (November 25) - Arduino & Programming

Workshop 4 (January 13) - Sensors

Workshop 5 (January 20) - Re-cap workshop/ CAD help

Additional drop-in hours will be announced in a few weeks

Course Bonuses

A 1-2% bonus for certain first year eng courses.

These bonuses will be given based on your evaluation. You can ask to be evaluated anytime during drop-in hours before competition day, and we will be test how well your robot performs. Everyone on your team will be given a course bonus in the courses that will be announced based on the score we give your team during evaluation!

You must be a full-time first year team to be eligible for these bonuses.

Website

To register your teams go to our website at https://sumobot.ca/#/

All tutorials and slideshows will also be posted for your reference.

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Questions?