

Sponsorship Packet  
2016-2017

# CWRUbotix



## Mission

CWRUbotix creates robots that solve challenging and pertinent problems. We seek to expose students to technical concepts beyond their curricula, offer experiences in leadership and collaboration, and promote STEM education in the Cleveland community.

## Projects and education

Over the years we have built Martian mining robots, combat robots, sumo-wrestling robots, maze-navigating robots, and more. To ensure that our membership is able to contribute to these projects, we run a practical robotics education and training program at the beginning of each school year. Students form small groups and tackle simple robotics challenges over the course of a month.

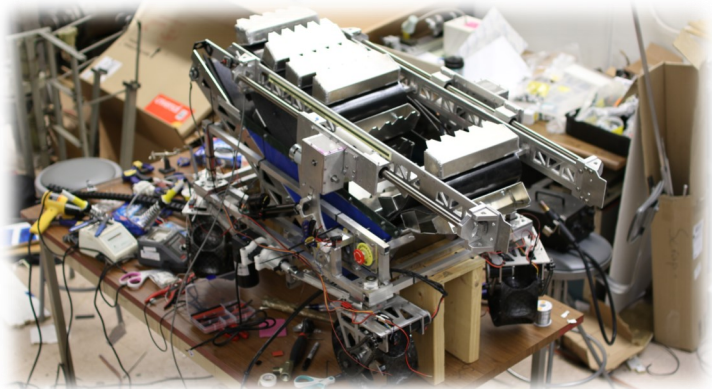
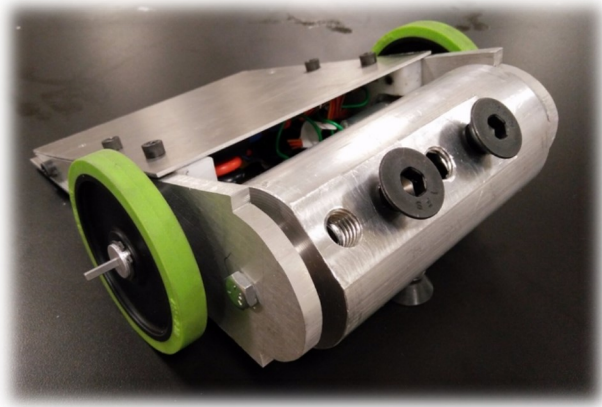
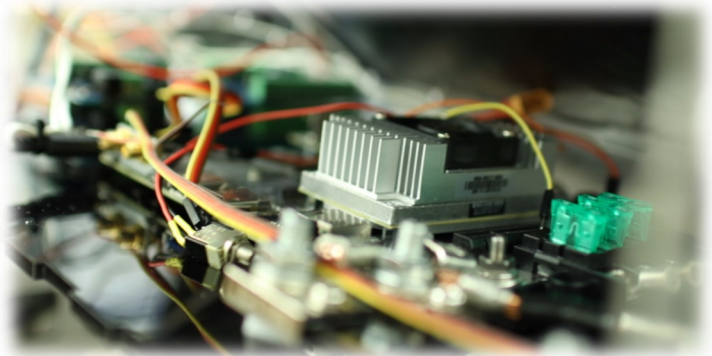
## Leadership and collaboration

Since our projects are multidisciplinary team efforts, members learn effective collaboration techniques, practice structured and pragmatic design processes, and take on leadership roles within the club. From an excavation system mechanical lead to the club's executive board, students can gain variety of technical and non-technical leadership experience.

## Community outreach

CWRUbotix is dedicated to having a positive impact on the Cleveland community. We run "mechathons" at local middle schools, provide LEGO Mindstorms kits for high schools, assist the Leonard Gelfand STEM Center, and volunteer at a variety of STEM related events for K-12 students in the area.

# Robotics Projects



## NASA Martian Mining Robot

The NASA Robotics Mining Competition is a national collegiate competition for which teams design a robot capable of autonomously excavating regolith in a simulated Mars environment. The competition is held every year in May at the NASA Kennedy Space Center.

## Combat Robot

Two robots enter, one robot leaves. Saws, rammers, grabbers, flippers, and weapons of all varieties are allowed. Competition classes range from 100 grams to 220 pounds.

The Fish, our 3-pound combat bot, competed at NRC in 2016. It won the bronze medal and was the only nominee for the Honda Innovation Award.

## Maze robot

This robot must use simple sensors and precise motors to traverse a maze. Localization algorithms are used to process the data from all the sensors and feed information to a graph traversal algorithm that searches for the cheese as fast as possible. Our team won the silver medal at NRC 2016.

...And more to come!



# Community Outreach



## Mechathon

Every few months, we bring sets of motor, batteries, switches, and a bunch of fun craft supplies to middle schools in Cleveland! We go over the basics of design with the students and let them loose in groups! They have an hour to build whatever they want to, with one condition: it moves.

## LEGO Mindstorms competition

This year we are going to distribute LEGO Mindstorms kits to local high schools that can't afford them and give them half a year to experiment with their kits. Then we will invite all of the teams to a competition to see what they've learned and give them a chance to compete with other schools!

## After-School Robotics

We are running a month-long program at local high schools to give students hand-on experience building robots. The groups of students will given a common objective for their project and will get to manufacture their designs at think[box]. At the end of the program, teams will come to case for the final competition.

# Sponsorship

Bronze Tier	\$250 or volunteering	Logo on our website, shirts, and promotional materials.
Silver Tier	\$500	Logo on our robots, access to our resume book, and all previous benefits
Gold Tier	\$1000	Logo and recruitment postings in our weekly newsletter to alumni, students, and other sponsors, and all previous benefits
Platinum Tier	\$2000	Opportunity to run recruitment info sessions partnered with us on Case's campus, and all previous benefits
Adamantium Tier	\$5000	Negotiable exclusive benefits, including funding projects we did not otherwise have the resources for, and all previous benefits

Non-monetary donations will be handled case-by-case



Thank you!

