



## Institute of Electrical and Electronics Engineers: Robotics and Automation Society

The University of Texas at Austin Chapter

### 2018 - 2019 Officer Team

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Corporate Relations: Maxim Gurevich

Outreach Coordinator: Chad Harthan

Secretary: Nick Duggar

Historian: Bibartan Jha

Webmaster: Daniel Teal

Special Events Coordinator: Mark Jennings

Publicity Coordinator: Janine Bariuan

**For more information, visit our website:**

<http://ras.ece.utexas.edu/>

The University of Texas at Austin chapter of the IEEE Robotics and Automation Society serves a diverse community of students consisting primarily of Electrical Engineering, Mechanical Engineering, and Computer Science majors. Our students are enthusiastically driven to incorporate and apply their classroom knowledge in real world settings. Our purpose is to educate and promote STEM in the rapidly growing fields of robotics and automation. We do so by providing opportunities for students to pursue their own personal projects, as well as providing opportunities for them to compete in robotics competitions on local, national, and international levels.

There are plenty of opportunities for companies to get involved with our organization, such as supporting our projects and/or supporting our in house competitions: Robotathon and the Convention for Unconventional Robotic Movement (CURM). As the largest UT undergraduate robotics project-based organization, we recognize that our members are sought after when it comes to implementing practical solutions to common engineering problems. With that in mind, we wish to facilitate the interaction between industry and our members. For all of our events, corporate contributors are recognized through flyers, emails, the chapter website, and event related t-shirts.

If you would like to partner with us for our events, please contact the Corporate Relations officer by email ([ras\\_corporate@utlists.utexas.edu](mailto:ras_corporate@utlists.utexas.edu)).

Best Regards,  
Maxim Gurevich  
[ras\\_corporate@utlists.utexas.edu](mailto:ras_corporate@utlists.utexas.edu)  
832-314-3051

**Thank you for your interest in UT IEEE RAS!**



*Image: Tech Talk*

## Technical Talk

A company representative presents about company past or present innovations, industry trends, or professional development topics. Tech Talks are an excellent way to reach out to our members and provides students with ideal networking opportunities. Tech Talks can be scheduled any weekday from 7pm-8pm or 8:30pm-9:30pm. For added convenience, consider scheduling during the RAS General meetings every other Tuesday from 7pm-8pm. Scheduling is done through communication with the RAS Corporate Relations Officer.

Anticipated Attendance: 50+



## Hackerspace

As a project driven organization, we require a well stocked Hackerspace to provide students access to basic tools and parts. We are always in need of solder, spools of stranded and solid core wire, lexan, and screws. By contributing to our Hackerspace, you provide the necessary parts to ensure that our members will continue being able to pursue their own personal projects and maintain our older robots. Whether you choose to support our Hackerspace financially or by donating parts, your company will be recognized with signage around our office space and be featured on our yearly RAS t-shirts.

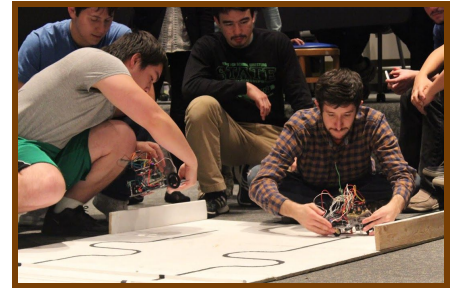
## Conventions

### Robotathon

Robotathon is the most anticipated competition our chapter hosts. It is open to all students from any major and any year of study. Most participants are freshman or sophomore engineering students with no prior robotics experience. Students will work in teams of 5-6 and will have many workshops and mentors available to them. Robotathon serves two main purposes. The first is to help any interested UT students in learning what it takes to build and program a robot. The second is to teach the next generation of students the skills they need to successfully go through the engineering design process in the same kind of interdisciplinary team setting they will be working with in industry.

Anticipated Attendance: 150

Date: Fall 2018, Competition: November 17



### CURM: Convention of Unconventional Robotics Movement

The goal of CURM is to create a robot that does not move through "conventional" (i.e. actuated wheels, treads, etc.) means. It is open to all students, faculty, and general public. No prior robotics experience is necessary, and we have weekly hack-days for UT students where we help them flesh out and execute their ideas. This event started as a small, organization wide convention in 2013, and has since grown to be intercollegiate and open to the public. This year, we invited the The University of Texas at Dallas, Texas A&M, University of Houston, The Robot Group at Austin, and more.

Anticipated Attendance: 60

Date: Spring 2019





# Projects

## Micromouse

New to RAS, Micromouse is a robotics competition that tests the limits of autonomous speed and precision. The goal is to design a tiny robot to scan a maze, determine the fastest solution, and execute this solution as fast as possible. Micromouse will challenge us to design an extremely compact robot using custom PCBs. Software-side, this challenge demands the usage of search algorithms as well as extremely fine-tuned object avoidance and motion control. Micromouse is known as a worldwide benchmark for micro-robot agility.

Date: April-May 2019



## Region V

Region V is part of an annual conference hosted by the international IEEE (Institute of Electrical and Electronics Engineers). Each year, they propose a different task that a robot must complete autonomously. These tasks typically require reading indicators on a game field and manipulating game pieces to accumulate points. This competition is unique in its balance of mechanical, electrical, and software requirements. Students gain valuable experience working on a diverse, multidisciplinary team where they must collaborate with students of different skill sets.

Date: April 2019

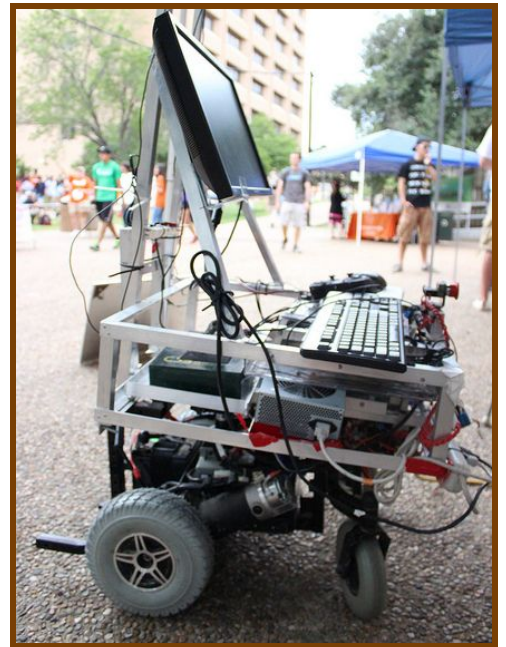
## Demobots

Demobots is a unique opportunity for students to pursue their own projects, enabled by support from RAS and our company partners. Free from the rigid format of our competitive teams, demobot projects are known for their original and inventive spirit. Many students prefer the individual pace as it allows them to achieve more ambitious goals. If given the opportunity, this freeform style presents a fantastic medium for RAS to showcase specific products provided by company partners.

Our current demobots projects include an autonomous ground vehicle as well as a self-orienting solar array. Our ground vehicle uses LIDAR to map its environment and we hope to fund and build a new chassis to expand the platform's potential. For the solar array, we are excited to work with the UT IEEE Power and Energy Society as a joint effort.

On the side, RAS relies on demobots to keep our existing robots in tip-top shape for showcases.

Date: All year



## Corporate Participation

We invite your company to support the UT IEEE Robotics and Automation Society.

### Supporter Giving Levels and Benefits

	<b>Platinum \$3000*</b> (limit 1)	<b>Gold \$2500*</b> (limit 2)	<b>Silver \$1250*</b>
<b>One guest judge at either Robotathon or CURM</b>	✓		
<b>Additional technical talk</b>	✓	✓	
<b>Featured guest at Robotathon or CURM (table and speaking opportunity)</b>	✓	✓	
<b>One technical talk</b>	✓	✓	✓
<b>Company name recognition on official RAS T-shirt**</b>	✓	✓	✓
<b>Company name recognition on RAS banners and flyers**</b>	✓	✓	✓
<b>Company name recognition on RAS website</b>	✓	✓	✓
<b>Tour of RAS lab space</b>	✓	✓	✓

*\*Pricing assumes that scheduling occurs during first five weeks of class and that company has more than 500 employees. Pricing is reduced otherwise. Companies are asked to provide food for the event. Please contact us for any further details.*

*\*\*Deadline for being included on t-shirts and banners: September 15, 2018*

#### Contact Information

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RAS Corporate Relations Officer  
[ras\\_corporate@utlists.utexas.edu](mailto:ras_corporate@utlists.utexas.edu)

#### Tax Credit Payment Information

To receive tax credit, please mail checks payable to "The University of Texas at Austin" to:

The University of Texas at Austin  
Engineering Student Life - IEEE RAS  
2501 Speedway, EER 2.848  
Austin, TX 78712  
936.827.6168

You can also give online at: <http://www.engr.utexas.edu/studentlife/orgs/give> by selecting "Student organizations accept online gifts" and then selecting the "Institute of Electrical & Electronics Engineers – Robotics & Automation Society" link.

***The 2018 - 2019 RAS Leadership Team thanks you for supporting the IEEE RAS branch at UT Austin!***

