



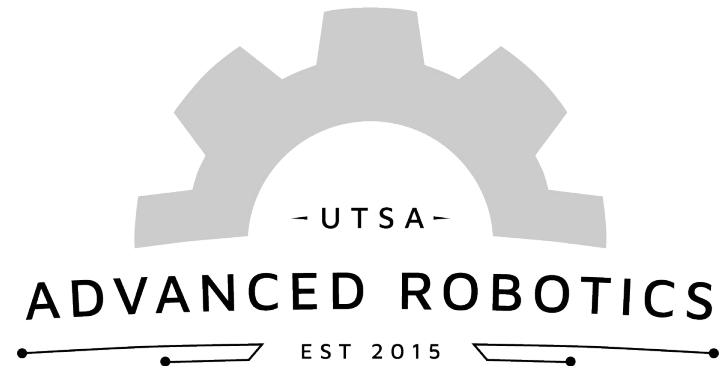
First General Meeting

Presented By:
AR Executive Board

Faculty Advisor: Dr. Mo Jamshidi

Summary Points:

1. Leadership
2. Projects
3. Membership
4. Benefits





Advanced Robotics Officers

President



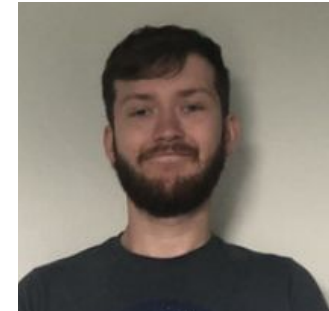
Brenda Carrillo
*Electrical & Computer
Engineering Major*

Vice President



Isaac Rodriguez
*Electrical & Computer
Engineering Major*

ESC Representative



Alex Iftinca
Mechanical Engineering Major



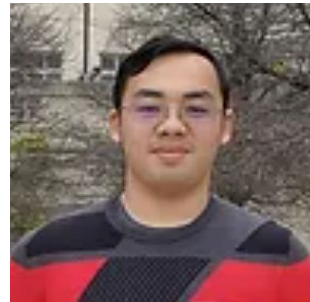
Advanced Robotics Officers

Executive Assistant



Jonathan Hernandez
Electrical Engineering Major

Technical Director



Joshua Le
Computer Science Major



Who Are We?

Advanced Robotics is a project-based organization.

Mission Statement: As an educational organization, Advanced Robotics believes that working on various, diverse, projects along with strong teamwork, is the best way to learn about robotics. We offer different opportunities under computer science, mechanical engineering, electrical engineering, and project management. We strive to enhance students' professional development, leadership, and career opportunities through hands-on robotics projects and industry collaborations.



Past Projects

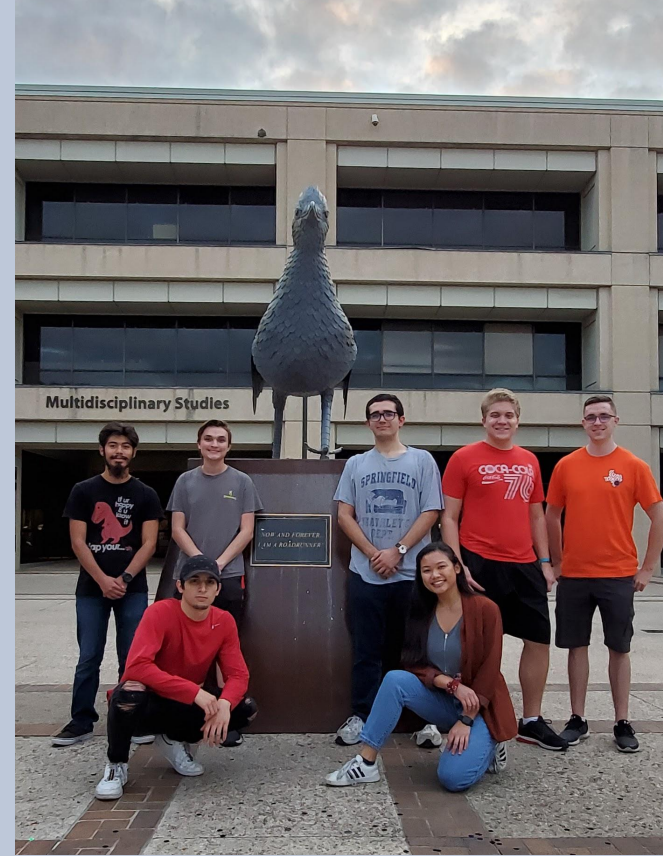


Following are AR's most
recently completed projects



Sumobot Competition

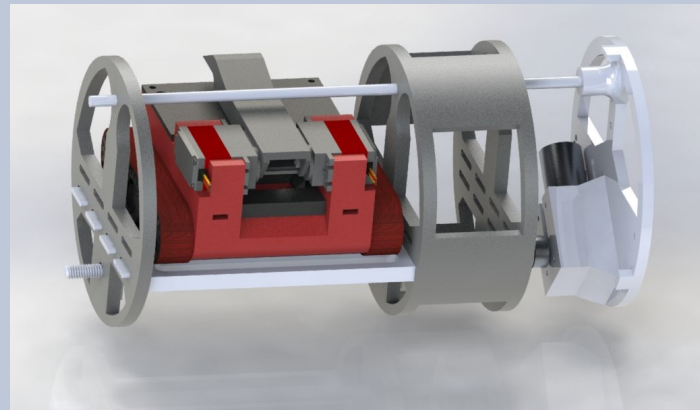
Teams of three were taught through a series of workshops how to code, design, and wire a “sumobot”. At the end of the workshops teams would compete with other members’ bots in a sumo wrestling-like competition.





NASA Student Launch

In collaboration with Aeronautics and Rocket Club we competed in NASA Student Launch. AR was tasked with creating a continuously-treaded ground vehicle, along with a deployment system for it, to extract 15mL of mock lunar samples upon the rocket's landing.





New and Continuing Projects

Following are the current projects AR is developing



Self Balancing Robot

**Open Source Project: JJRobots
from Thingiverse**

The project's objective is to build a self-balancing robot and learn the ins and outs of it. The robot will be 3D printed and will be controlled through an app on a mobile phone. This project is catered towards beginners and a great place to start.

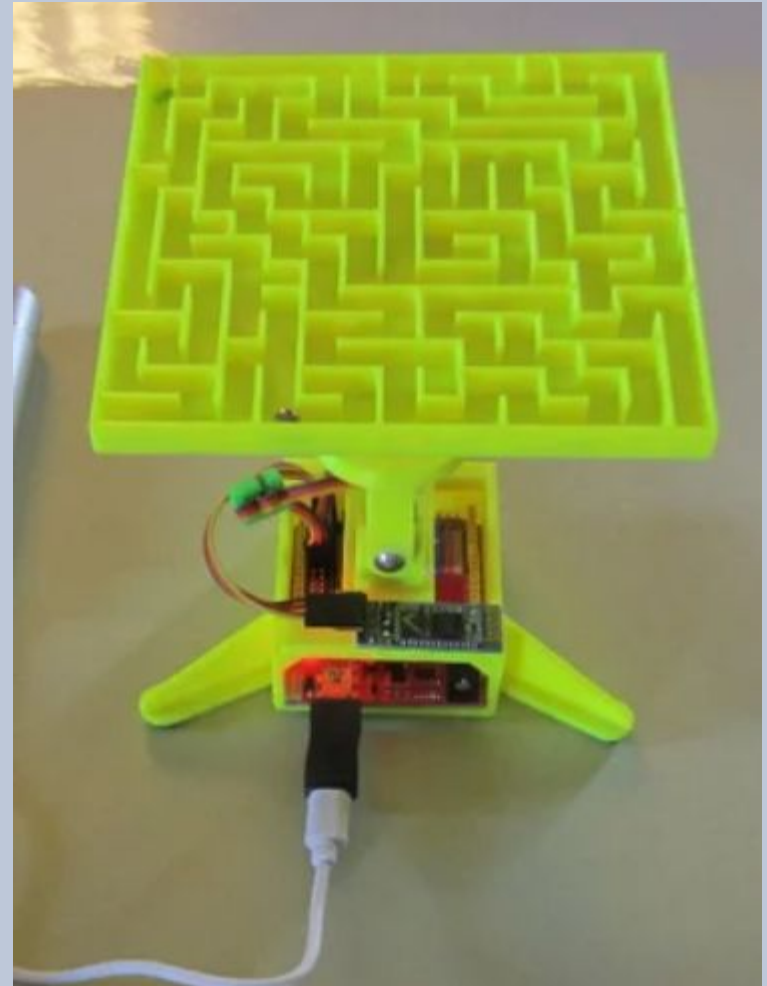




Maze Robot

Open Source Project: BLIC19933 from Instructables

The objective of this project is to develop print a 3D maze that will be attached to a gimbal assembly. The player will be able to use their phone and move a ball on the maze from one side to another.





Sawppy the Rover

Open Source Project

The project is to build *Sawppy the Rover* which is an open source rover inspired by JPL's *Open Source Rover* project. The goal of the project is to make an interactive rover for all events AR will be attending. Members of the project will learn how to use ROS (Robotics Operating System) and get intimate knowledge with computer vision. Lastly, students will gain experience in controls engineering and systems engineering.

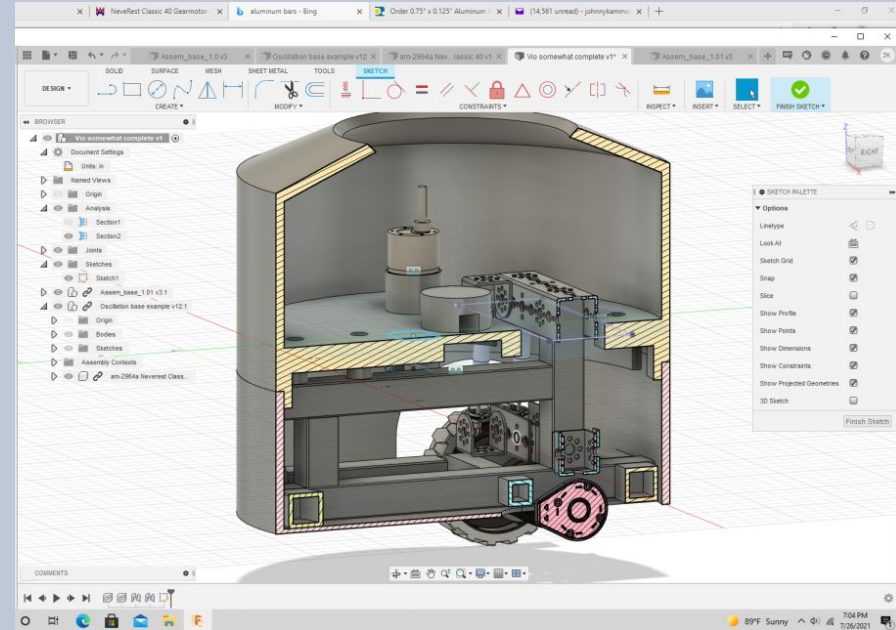




VIO

This project will be an autonomous fan/heater hybrid that will follow a person in real-time as they move. The project's goal is to aid a person who is a wheelchair user always to have a stable system to regulate their temperature as needed.

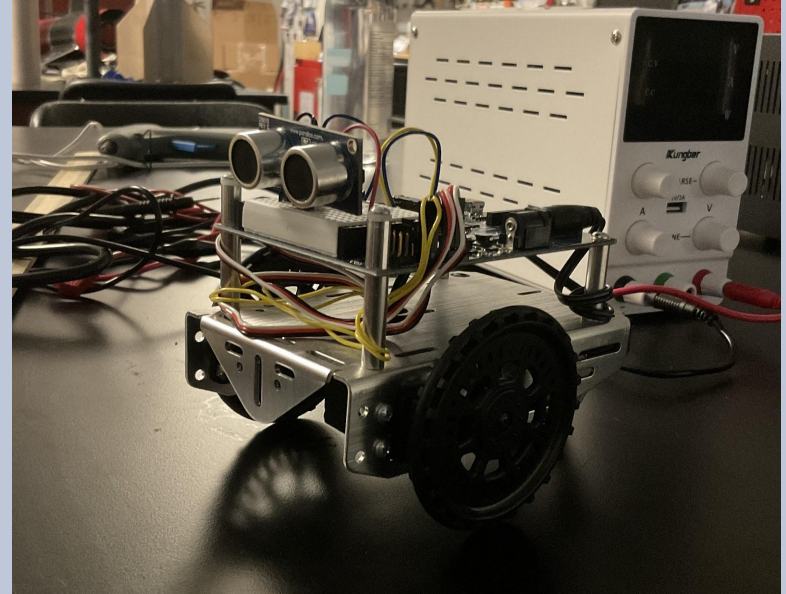
Students will learn to build a mobile application, communication protocols and get intimate knowledge with computer vision. They will learn how to CAD a system using SolidWorks/fusion 360 and will learn about materials and heat transfer. Lastly, students will gain experience in controls engineering.





NSA Education Collaboration Project

The objective of this project is to develop educational tools for the NSA to use at schools around San Antonio. These robots along with a router should be able to simulate cyber attacks and show students how to program using the robots.





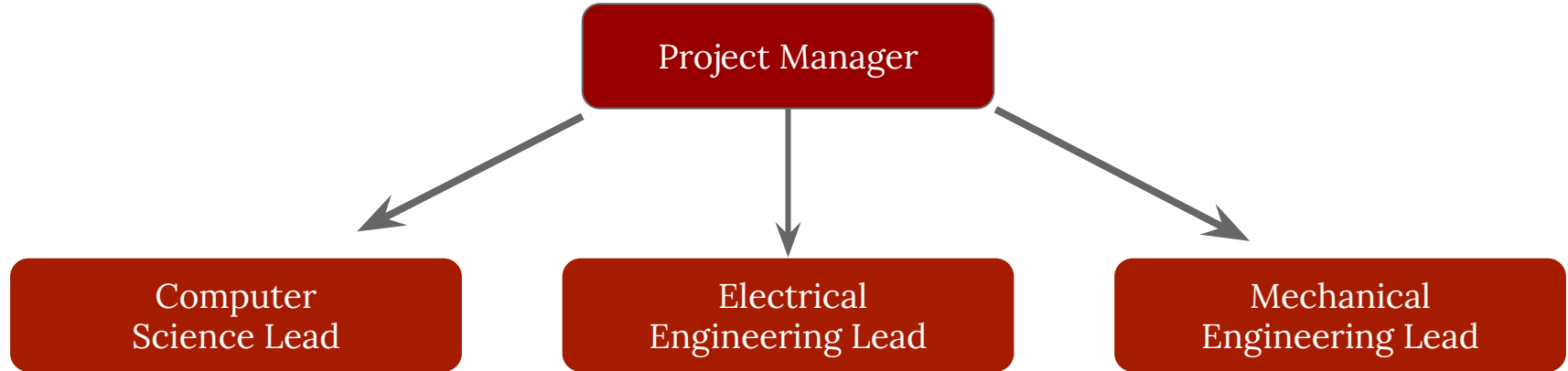
Cave Exploration

The objective of this project is to develop a remote-controlled robot that can map the interior of a cave using LIDAR. This project is a collaboration between The Wex Foundation for LCATS and Advanced Robotics to assist students exploring caves where visibility may be low.





Project Member Hierarchy





Join A Project



Project managers

- Lead project advancement and coordinate with project leads

Project Leads

- EE section leads
- ME section leads
- CS section leads

Workshop Leads

- Sumobot
 - Arduino Coding
 - Solidworks
- Any other workshop



Members

- Contribute to projects while learning valuable skills
- Learn to get involved and be a good project member





Officers Wanted



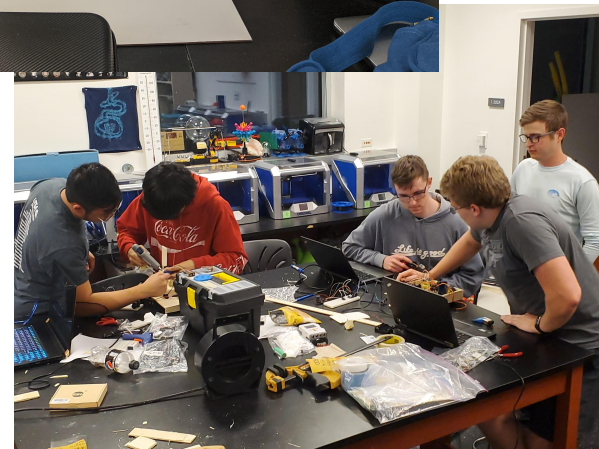
Treasurer
Digital Media Director
Junior Officers
Technical Junior Officer

- Advanced Robotics Officers are to oversee and implement the organization's procedures and policies as stated in the constitution
- Officers supervise all of the organization's affairs serve as members of the Executive Board of the organization.
- Officers may appoint Junior Officers to assist them. Though they are not part of the Executive Board, Junior Officers may join officer meetings at the discretion of whom they are working under.

Workshops!

UTSA AR holds several workshops for all majors and skill levels:

- Interactive ROS Workshop
- Fusion 360 and Solidworks
- Project Management and Lead Training





Speaking Events!

AR holds speaking events where we invite companies to present their jobs for those interested in getting connected! Our past speakers have included:

- MITRE
- NSA
- Plus One Robotics
- Northrop Grumman
- SwRI
- Lockheed Martin





Socials

Our Socials will be hosted in person or our Discord, they will include:

- Game Nights
- Movie Nights





Society of Women Engineers



SWE has given women engineers a unique place and voice within the engineering industry for more than six decades. Our organization is centered around a passion for our members' success and continues to evolve with the challenges and opportunities reflected in today's new engineering and technology specialties.

Next Meeting:

Thursday, Sept. 2nd @ 6 PM
Zoom ID: 944 5857 0931



ROBOTICS AND AUTOMATION SOCIETY

1ST GENERAL MEETING



SEPTEMBER 8 2021 | 6PM ON ZOOM

ZOOM MEETING ID: 951 9957 7766

PASSWORD: RAS_UTSA

JOIN OUR DISCORD LINK BELOW OR SCAN QR CODE!
[HTTPS://DISCORD.GG/BQY3XPG2Z6](https://discord.gg/BQY3XPG2Z6)

WE WILL BE DICUSSING:

- Workshops
- Social Events
- Projects

EVERYONE IS WELCOME!

EMAIL: ROBOTICS.UTSA@GMAIL.COM





Pay Dues!

Dues:

Option A: \$25 per semester

Option B: \$40 for the school year

Venmo: @AR-UTSA

Paypal: @UTSAAR

Contact an officer to pay with
cash or card

Join Advanced Robotics!



Join our Discord!

Follow us!

Discord	https://discord.gg/gjvEZWdPZD
Instagram	@utsa_ar
Twitter	@utsa_ar
Linkedin	Advanced Robotics at UTSA
Facebook	Advanced Robotics - UTSA
Website	utsa-ar.com
Email	utsaar@gmail.com



Questions?