

COMET ROBOTICS

2025 Sponsorship Packet

Table of Contents

02	Table of Contents
04	Who we are
06	Our Projects
08	Combat: General
10	Combat: Sumo Bots
12	Chess Bots
14	VEX U
16	Solis Rover Project
18	Sponsorship Tiers
22	Thank You

IDENTITY

Who we are

Comet Robotics at UT Dallas is a student organization with the goal of promoting robotics at UT Dallas and in the surrounding area through outreach, projects and workshops. We compete with colleges and universities across the globe in **combat robotics competitions**, and programs like **VEX U** and **University Rover Challenge**.

With membership **open to all students** regardless of major or prior experience in robotics, we provide students with the **opportunity** to collaborate and compete with like-minded individuals to gain experience and refine their knowledge of designing, building, and programming robots. As an organization, we aim to build and sustain an engaged body of students hoping to expand upon their coursework and gain real-world experience, developing skills in project management, leadership, teamwork, and much more.





OUR PROJECTS

NEIL B.
COMBAT OFFICER

Combat: General

PROJECTS

Combat is our most historical project- going back to 2004- where we build and fight robots designed for combat in different weight classes. We attend several competitions each year, and have even hosted our own with 48 robots from various organizations and universities in attendance.

We even participated in NHRL, the largest combat robotics competition in the nation, which hosts competitors from across the globe.

Furthermore, we thoroughly engage the Engineering Process: identify problems, ideate solutions, integrate our solution into the robot, test the solution in real situations, and we continue to improve after each event.

Plastic Ants

*1 pound combat robots
used to teach CAD,
soldering, 3D printing, and
electronics skills*

CometRx

*Designs precise PCBs to
control our combat robots.
Embedded programming*

Full Combat

*Larger combat robots
Designing robot parts for
machining, laser cutting, and
assembly*

Combat: Sumo Bots

PROJECTS

We focus on building fast, autonomous sumo robots that push each other out of a ring.

Autonomous robots rely on infrared sensors and phototransistors for object and edge detection.

Sumo Bots are a more advanced form of combat, after students get familiar with making plastic ants for general combat competitions.

Multidisciplinary

3D printing chassis, designing PCBs, writing embedded software

Weight Classes

Focuses on 500g and 3kg classes for competition



EVAN W.
SUMO BOTS PROJECT MANAGER

SUMO BOTS



DYLAN B. // GABE

CHESS BOTS PROJECT MANAGER // MEMBER

Chess Bots

FULLY AUTONOMOUS ROBOTS THAT
PLAY CHESS

ChessBots is a project that focuses on the revival and redesign of 32 life sized autonomous chess piece robots, designed to play on a life-sized board at UTD's very own chess plaza. Once finished, the fully autonomous robots mimic the moves made by players or by an AI on our website in real time.

The team is giving the bots a complete revamp: new hardware, a fully redesigned software stack, and thorough organization and documentation to allow the project to continue with sustainable progress.

Each bot houses an ESP32 with firmware coded in C++ for wireless communication with the server over WiFi, and to process and enact the recieved commands. Onboard encoders and light sensors allow the bot to record its movement in real time. This allows the bot to navigate tiles and perform complex movement. The server is coded in TypeScript, and serves a Vite+React frontend to clients connecting to our website.

These bots, when completed, will run events at many locations and demonstrate UTD's pride and enthusiasm for chess.

School Spirit

UTD is famous for its chess team, and this is our way of showing appreciation.

High-Level Software

Our project uses a blend of C++, TypeScript, and Vite+React to achieve its many facets

VEX U

PROJECTS

COMPETES IN VEX U ROBOTICS
COMPETITION AGAINST OTHER
UNIVERSITIES LOCALLY AND
GLOBALLY

COMET VEXU is a nationally competitive team where we design, build, program, and tele-operate robots for head-to-head matches against universities worldwide. Each year brings a new challenge for us to face.

Our team has qualified for VEXU Worlds, the highest level of competition, proving our capability against top-tier universities while improving our design processes every time.

We rapidly develop, refine, and build our designs in a matter of months.

In addition to pure competition, we've also conducted and presented valuable research on holonomic drive at the Undergraduate Research Scholar Awards (URSA) at UTD.

Software Team

Writes code for the complex movements and functions of the robot, including autonomous actions.

Hardware Team

Brainstorms solutions to VEX games and designs a robot capable of performing various tasks.



JESSE H. // KEVAL S.

VEX U PROJECT MANAGER // SOFTWARE LEAD

C
M
X

C

015



LUKE F.
SRP SCIENCE LEAD

Solis Rover Project



COMPETES IN UNIVERSITY ROVER CHALLENGE (URC)

Solis Rover Project (SRP) is a team dedicated to designing, building, and competing a Mars exploration rover.

SRP has a 40-member team with students from engineering, arts & technology, and business backgrounds. We are divided into four sub-teams:

Embedded Team

Develops the rover’s control systems and autonomous functions

Science Team

Implements onboard research tools for terrain and sample analysis to

Business Team

Manages fundraising, sponsorships, and outreach

Mechanical Team

Designs and fabricates the rover’s structure and mobility system

Collectively, we compete in the University Rover Challenge which hosts universities from around the world to test engineering skills.

As a new project, we are making amazing strides and receiving glowing reviews from URC judges to continue in our efforts.





SPONSORSHIP TIER

SPONSORSHIP TIERS

Maroon

\$6000+

Red

\$4000 - \$5999

Slate Grey

\$2000 - \$3999

Cream

\$500 - \$1999

Company logo displayed on website and events



Handwritten card from the team



Receive book of member resumes



Logo placement on club uniforms



Company logo featured on a robot



Social media post



Logo displayed prominently in club space



Dedicated spot to speak at major events



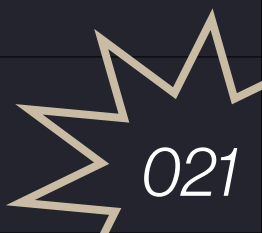
Team attends DFW location of choice to display robots



Event or robot holds company name



Receive custom made Comet Robotics plaque





THANK YOU

***PLEASE CONTACT US AT
COMETROBOTICS@UTDALLAS.EDU***