COMET ROBOTICS

2025 Sponsorship Packet

Comet
Robotics

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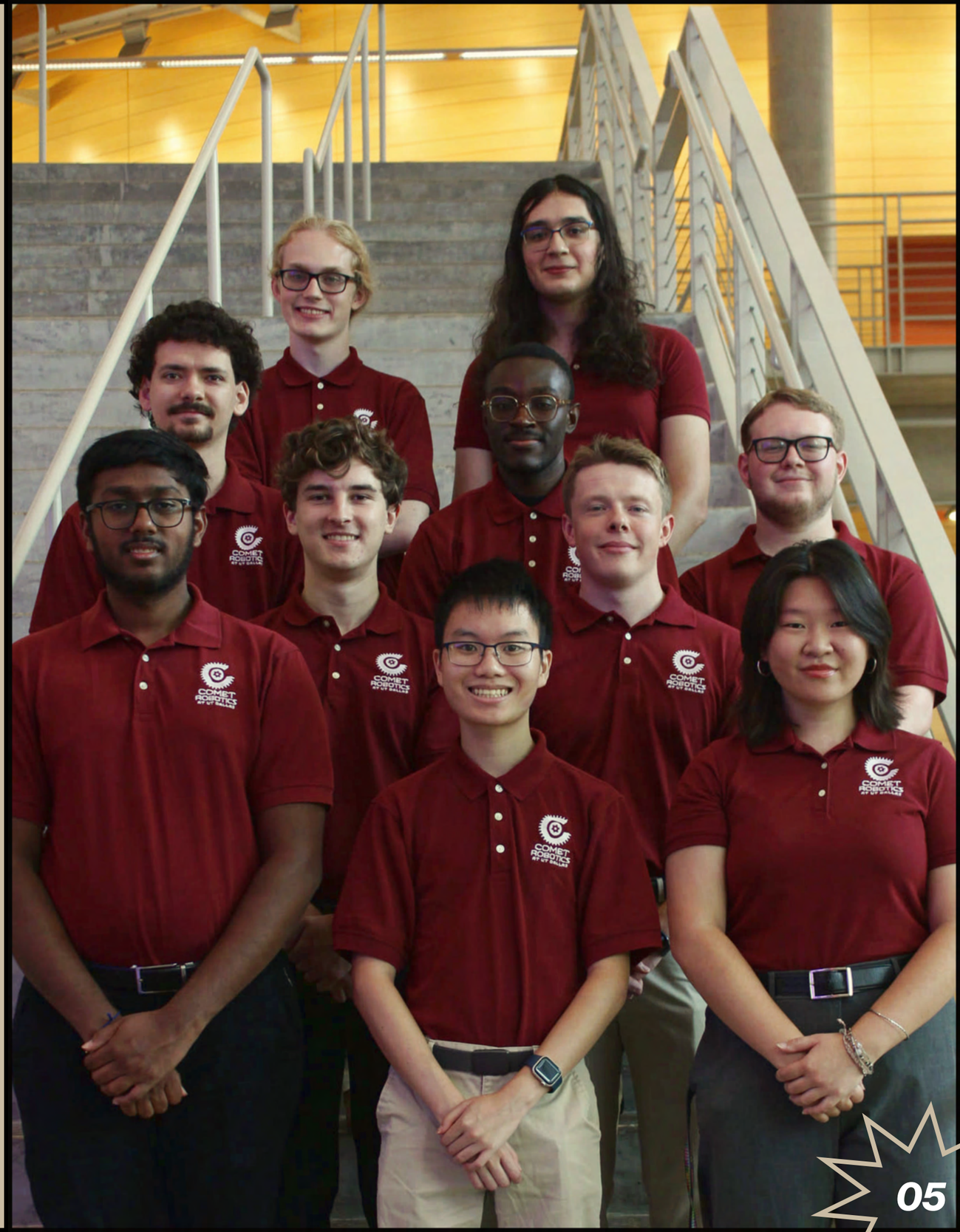
IDENTITY

Who we are

Comet Robotics, a University of Texas at Dallas student **501(c)(3)** organization, promotes robotics through outreach, projects, and workshops on campus and in the surrounding area. We compete in **combat robotics competitions**, and programs like **VEX U and University Rover Challenge** with colleges and universities across the globe.

Our membership is **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. We aim to sustain an engaged student body hoping to build upon their coursework and gain **real-world experience** by developing skills in project management, leadership, teamwork, and much more.



OUR PROJECTS

NEIL B.

COMBAT OFFICER

PROJECTS

Combat: General

Combat is our oldest project, going back to **2004**. We build and fight robots designed for combat in different weight classes. Each year, we attend several **competitions** and have even **hosted our own** (Comet Clash) with 48 robots from various organizations and universities in attendance.

We participated in the **National Havoc Robot League** (NHRL), the **largest combat robotics competition** in the nation, which hosts competitors from across the globe.

Combat instills the **engineering process** as members identify problems, ideate solutions, and iterate on their bots. To support this, we run **skill workshops** that apply learning to real situations and drive continual improvement with each event.

Plastic Ants

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

Full Combat

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

CometRx

Designs precise PCBs to control our combat robots; embedded programming

PROJECTS

Combat: Sumo Bots

Sumo Bots builds **fast, autonomous robots** that push each other out of a ring. Autonomous robots rely on **infrared sensors and phototransistors** for object and edge detection during **competitions**.

We are a more **advanced** form of combat, intended for Comet Robotics members who are 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

DYLAN B. // GABE

CHESS BOTS PROJECT MANAGER // TEAM LEAD

PROJECTS

Chess Bots

FULLY AUTONOMOUS ROBOTS THAT PLAY CHESS

ChessBots is a revived project that is redesigning **32 life sized autonomous chess piece robots** meant 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 real time moves made by AI on our website.

Each bot houses an **ESP32 with firmware coded in C++** for wireless communication with the server over **WiFi** to process and enact the received 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 movements. On our website the server is coded in **TypeScript**, and serves a **Vite & React** frontend to connect clients.

On completion, Chess Bots will run outreach events at many locations and demonstrate UTD's **pride and enthusiasm** for chess and robotics.

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

PROJECTS

VEX U

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

COMET VEX-U is a national competitive team. 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 **VEX U Worlds**, the highest level of competition, proving our capability against top-tier universities while improving on iterative design processes over time.

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

In addition to pure competition, we have conducted and presented valuable **research on holonomic drive** at the Undergraduate Research Scholar Awards (URSA) at UT Dallas.

Software Team

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

Hardware Team

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

JESSE H. // KEVAL S.

VEX U PROJECT MANAGER // SOFTWARE LEAD

LUKE F.

SRP TEAM LEAD

PROJECTS

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.

Embedded Team

Develops control systems and autonomous functions using ROS

Science Team

Implements onboard research tools for terrain and sample analysis

Logistics Team

Manages fundraising, sponsorships, and outreach efforts

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.

BECOMING A SPONSOR

SPONSORSHIP TIERS

	Maroon $6000+	Ruby $4000 - $5999	Ivory $2000 - $3999	Slate Gray $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	✸			

How to Donate?

DONATE

We appreciate your help in furthering robotics innovation, education, and engineering.

Your donation is making a difference.

1 **Write a check to:**

"Comet Robotics at UT Dallas"

2 **Mail the check to:**

5839 Shoreside Bend, Irving, TX 75039

Comet Robotics is a registered 501(c)(3) nonprofit organization.

All donations are **tax-deductible** to the fullest extent allowed by law. Your support helps us advance robotics education, innovation, and opportunities for students in our community.

Contact Info

ANY QUESTIONS? PLEASE REACH OUT

President	Om Davra	osd22000@utdallas.edu
Vice President	Colin Wong	csw220002@utdallas.edu
Combat	Neil Blatzheim	ngb170030@utdallas.edu
Combat	Deklen Nates	dmn230001@utdallas.edu
Competitive	Lucas Igl	lqi230000@utdallas.edu
Competitive	Mudit Upadhyay	mxu220004@utdallas.edu
Marketing	Tian Wang	txw240005@utdallas.edu
Outreach	Ana Wise	axw230026@utdallas.edu
Finance	Jason Antwi-Appah	jxa220013@utdallas.edu
Events	Nathan Wignall	njw230004@utdallas.edu
Facilities	Dylan Bigini	dmb220002@utdallas.edu

Email:	**cometrobotics@utdallas.edu**
Website:	**cometrobotics.org**
Instagram:	**@comet_robotics_utd**
LinkedIn:	**https://www.linkedin.com/company/comet-robotics-utd**

THANK YOU

PLEASE CONTACT US AT COMETROBOTICS@UTDALLAS.EDU