



WHY TRITON DROIDS?

VISION

Create equitable access to humanoid robot technology to reduce global production disparities

UNIQUENESS

We have access to a very large number of students and experts, access to high-end robotics and autonomy labs, access to the largest Data Center in San diego

WHAT WE DO

We are on a mission to build the first autonomous humanoid robot at an undergraduate level, in partnership with industry and academia



ABOUT US

OUR TEAM

At Triton Droids, our mission is to inspire members to pursue their passions in robotics while building industry-relevant skills critical for their professional growth. During its inaugural quarter, Triton Droids attracted record interest, receiving over 150 applications. The team now consists of 42 dedicated members, organized into engineering and outreach sub-teams. We work together twice a week and have 24/7 access to one of the university's top makerspaces, Envision, for construction and prototyping, enabling us to bring our ideas to life at any hour.

We are committed to creating an inclusive environment where students from all backgrounds feel welcomed, represented, and valued across our organization.



OUR ACADEMIC PARTNERS

FACULTY ADVISOR



Professor Micheal Yip, ECE Department, UCSD



Dr. Xiaolong Wang, ECE Department, UCSD

ADVISORY BOARD



Dr. Nicholas Gravis, MAE Department, UCSD



Professor Sonia Martinez, MAE Department, UCSD



Professor Gert Cauwenberghs BENG Department, UCSD



PROJECT OVERVIEW

TRITON DROIDS STRUCTURE

Triton Robotics is structured into six sub-teams: Mechanical, Controls, Software, Power, marketing and Finance. Our members specialise and refine their skills in CAD, embedded, electronics, controls, programming, machine learning, and graphic design, with the ultimate goal of constructing an autonomous humanoid robot by spring 2026.



- Lower-body CAD Robots
- **Design Electronics**

- Simulation Setup
- Part Fabrication and Ordering Controls
- Robot Construction Upper-Body CAD

Design Reviews

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- Completion Embedded and

- Part Fabrication Upper-body ٠
- Construction and Integration
- Locomotion and
- Manipulation Testing
- Iterative Redesign Ideation





THE ROBOT

RATIONALE

Humanoid robots represent a rapidly emerging industry with an enormous growth potential. Unlike specialized robots, general-purpose humanoid bots can operate in spaces designed for the human form factor—our homes, workplaces, and cities. This flexibility makes them well-suited for various applications, from caregiving to labor-intensive tasks. According to ARK Invest, this market is estimated to be worth \$24 billion. At UCSD, Triton Droids is the only initiative providing students with an opportunity to innovate in this exciting field, bridging the gap between academia and the forefront of robotics technology.

FUNCTION

The Triton Droids robot will be equipped with capabilities that replicate essential human movements. It will have the ability to walk, detect obstacles, and navigate around them, as well as use a functional hand to pick up objects. These fundamental actions form the basis for a variety of sophisticated applications. Our primary objective is to deploy the robot in disaster management scenarios, where its ability to navigate hazardous environments and perform tasks such as moving debris or delivering aid can significantly enhance the effectiveness of response efforts.

APPROACH

Guided by our academic advisors, we are initiating development with the robot's lower body. Mastering bipedal locomotion, a notoriously challenging aspect of humanoid robotics, requires complex control systems for balance and agility. By tackling this challenge first, we establish a solid foundation before progressing to the upper body. This will enhance the robot's utility. This staged approach allows us to focus on solving the most difficult problems first, positioning us for future success.

PROGRESS

So far, we have made significant strides in the project. Our CAD designs for the lower body have been finalised, and we have completed the procurement some parts. Production planning is underway, ensuring that we have a structured approach for building and integrating components. In parallel, our controls team has started running simulations of the movement algorithms, focusing on making the robot's gait both efficient and stable. These developments bring us closer to our goal of creating a fully functional humanoid robot at UCSD by 2026.













WHY SPONSOR US?

WHY IS TRITON DROIDS UNIQUE

Triton Droids stands out as the first and only university club at UCSD focused on developing a fully functional humanoid robot by 2026. Unlike many other engineering clubs that focus solely on theoretical or competition-based projects, Triton Droids is driven by a vision with tangible real-world implications. We are creating a humanoid robot—a highly ambitious endeavor that combines mechanical engineering, AI, software development, and an overarching mission to solve global production inequalities. We aim to create low-cost humanoid robots to disrupt production disparities and foster a world of equity and abundance. Triton Droids gives students the opportunity to work at the intersection of cutting-edge robotics, AI, and social impact—a combination that few other university clubs offer.

HOW WE HELP STUDENTS

Triton Droids offers students a hands-on experience that extends beyond the classroom. Members engage in every phase of the humanoid robot's design, engineering, and development process, gaining practical skills in mechanical design, software programming, electronics, and systems integration. We provide unique opportunities for collaboration with industry experts, professors, and interdisciplinary teams. Participants also develop essential leadership, project management, and communication skills, enhancing their resumes significantly. Triton Droids is more than just a technical club; it's a platform for young innovators to sharpen their abilities and tackle real-world challenges.

HOW WILL WE HELP INDUSTRY

Our partnership opportunities provide industries with early access to talent wellversed in practical robotics and engineering. By sponsoring Triton Droids, companies will be directly connected to a pipeline of motivated, highly skilled engineers who have hands-on experience building humanoid robots and tackling complex challenges. Sponsors will also benefit from our research insights, the prototypes we develop, and the fresh, innovative ideas that emerge from our work. Partnering with Triton Droids allows sponsors to contribute to cutting-edge robotics while aligning themselves with our mission of using technology for social good.



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WHAT WE NEED?





WHAT WE OFFER

TIERS (\$)	BRONZE	SLIVER	GOLD	PLATINUM	DIAMOUD
BENEFITS	100+	500+	1000+	3000+	5000+
BIWEEKLY NEWSLETTER	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
NAME ON WEBSITE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
PROMOTION IN CLUB EVENTS	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
SMALL STICKER ON ROBOT		\checkmark	\checkmark	\checkmark	\checkmark
Social Media Post		\checkmark	\checkmark	\checkmark	\checkmark
ACCESS TO RESUME BOOK			\checkmark	\checkmark	\checkmark
MEDIUM STICKER ON ROBOT			\checkmark	\checkmark	\checkmark
MEDIUM LOGO ON BANNER				\checkmark	\checkmark
LARGE STICKER ON ROBOT				\checkmark	\checkmark
LARGE LOGO ON BANNER				\checkmark	\checkmark
ALUMNI NETWORK ACCESS				\checkmark	\checkmark
SPONSOR SPOTLIGHT VIDEO					\checkmark
JOB POSTING ANOUNCEMENTS					\checkmark
NETWORKING <i>∉V</i> ENT					\checkmark



We offer five standard packages for sponsorship. However, we would be most happy to create customized packages as per your organization's needs. In addition to monetary funding, we welcome you to support us in other ways as well. We have listed some potential options below, but if there are any other avenues, kindly let us know. We will determine an estimated monetary value of all in-kind sponsorship to determine your sponsorship tier and perks.

Equipment, Tools, and Supplies

• Sponsor Triton Droids by providing us with materials, tools, components, and machinery essential for developing our humanoid robots.

Licenses to Proprietary Software

• Support our team by providing access to proprietary software licenses that your organization offers, which can aid in designing, simulating, and programming our robots.

Access to Labs, Maker Spaces, and Testing Facilities

• Provide access to your labs, maker spaces, or testing facilities where our team can work on building and testing our robots. Preferably, these should be on campus or easily accessible.

Hosting a Free Hands-On Workshop for Our Team

• Host a workshop where your organization supplies tools, materials, and technical expertise to train our members on industry-relevant skills, such as advanced robotics, control systems, or AI.

Off-Campus Team Experience

• Sponsor a visit to your facilities, where our team members can tour your organization, observe your operations, and interact with industry professionals for real-world exposure.

Mentorship and Guidance

• Organize mentorship sessions with your industry professionals to provide advice and guidance to our team, either related to our projects or to help our members develop their skills and careers.

Marketing and Promotion

• Promote Triton Droids through your organization's social media channels, newsletters, etc. Help increase our visibility at conferences, exhibitions, or within the robotics community.

Sponsoring Merchandise for Triton Droids

 Provide us with branded t-shirts, hoodies, stickers, or other merchandise to help our club members represent Triton Droids at events and build a cohesive team identity.

R&D Collaboration

Collaborate with Triton Droids on research and development projects, leveraging your
organization's expertise and resources to co-create innovative solutions in humanoid robotics.



Engagement



In addition to our active social media presence (with posts and reels gaining over 3000 views), we host 2-3 events each quarter, drawing an audience of over 100 attendees per event such as our GBM in winter 2025. We also organize tabling events where we showcase our robot prototype and club banner, consistently attracting over 400 students to our stalls. These activities offer sponsors extensive oncampus exposure and direct engagement with a wide, enthusiastic student audience.



GBM EVENT

YOUR DONATIONS GO A LONG WAY!

Your donations directly fund essential components, tools, and materials needed to build our humanoid robot. Each contribution helps students gain hands-on experience and develop practical skills, preparing them for careers in robotics and engineering.

Triton Droids is a non profit and is classified as a 'Unincorporated association' organisation (EIN 33-1874028) by the Internal Revenue Service (IRS). We are fully committed to transparency and are pleased to provide our determination letter upon request and a donation receipt upon receiving your donation!





LETTER FROM LEADERSHIP

To Potential Sponsors,

On behalf of Triton Droids at University of California, San Diego, we would like to express our heartfelt gratitude for considering our team for sponsorship. Triton Droids, a pioneering student-led robotics club, is dedicated to creating the first fully functional humanoid robot at our university. Our ambitious project relies on the support of sponsors like you, whose generosity fuels our mission. Your contributions, whether monetary or in-kind, are invaluable to our progress and success.

With your support, we can provide our members with unparalleled hands-on experience, nurturing their growth as innovators, engineers, and leaders. Your sponsorship not only helps us overcome technical challenges but also empowers our team to push the boundaries of robotics and artificial intelligence. Together, we can inspire a new generation of thinkers and creators, contributing to advancements that impact industries globally.

Thank you, Triton Droids



BAXTER ROBOT: DONATED TO US BY ADVISING PROFESSOR





CONTACT US!





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