SPONSORSHIP PACKAGE 2024/25

THE UNIVERSITY OF BRITISH COLUMBIA

Engineering Design Teams
Faculty of Applied Science

ThunderBots

WHO ARE WE?

We are an undergraduate engineering design team at the University of British Columbia united with one goal: **create novel, soccer-playing automated robots.** Every year we compete in the Small Size League of the international **RoboCup Federation** – we've achieved **1st position in 2019, 2021 and 2nd in 2024**!

65 students

12 departments

1 common goal

THUNDERBOTS @ ROBOCUP

RoboCup is an annual international robotics competition founded in 1996. Interestingly, the idea of robots playing soccer was first introduced in UBC by Professor Alan Mackworth. The aim of the competition is to promote robotics and AI research by offering a publicly appealing – but formidable – challenge.

YEAR ESTABLISHED	ATTENDING ROBOCUP SINCE	ROBOCUPS ATTENDED	1ST PLACE WINS
2006	2009	14	2

OUR MISSION

Our aim is to use the publicly appealing platform of robot soccer to **generate interest and enthusiasm for robotics** within UBC, BC, and worldwide communities.

We also strive to enhance the educational experience of UBC students by providing an inclusive environment with emphasis on teaching and mentoring members to seek out, implement, and create novel solutions to complex engineering problems.

Our members, through their experience on Thunderbots, develop skills needed to quickly integrate into any workplace and make meaningful contributions. This year, we are gearing up to bring our latest and greatest fleet of robots to competition at RoboCup 2025 in Salvador, Brazil!

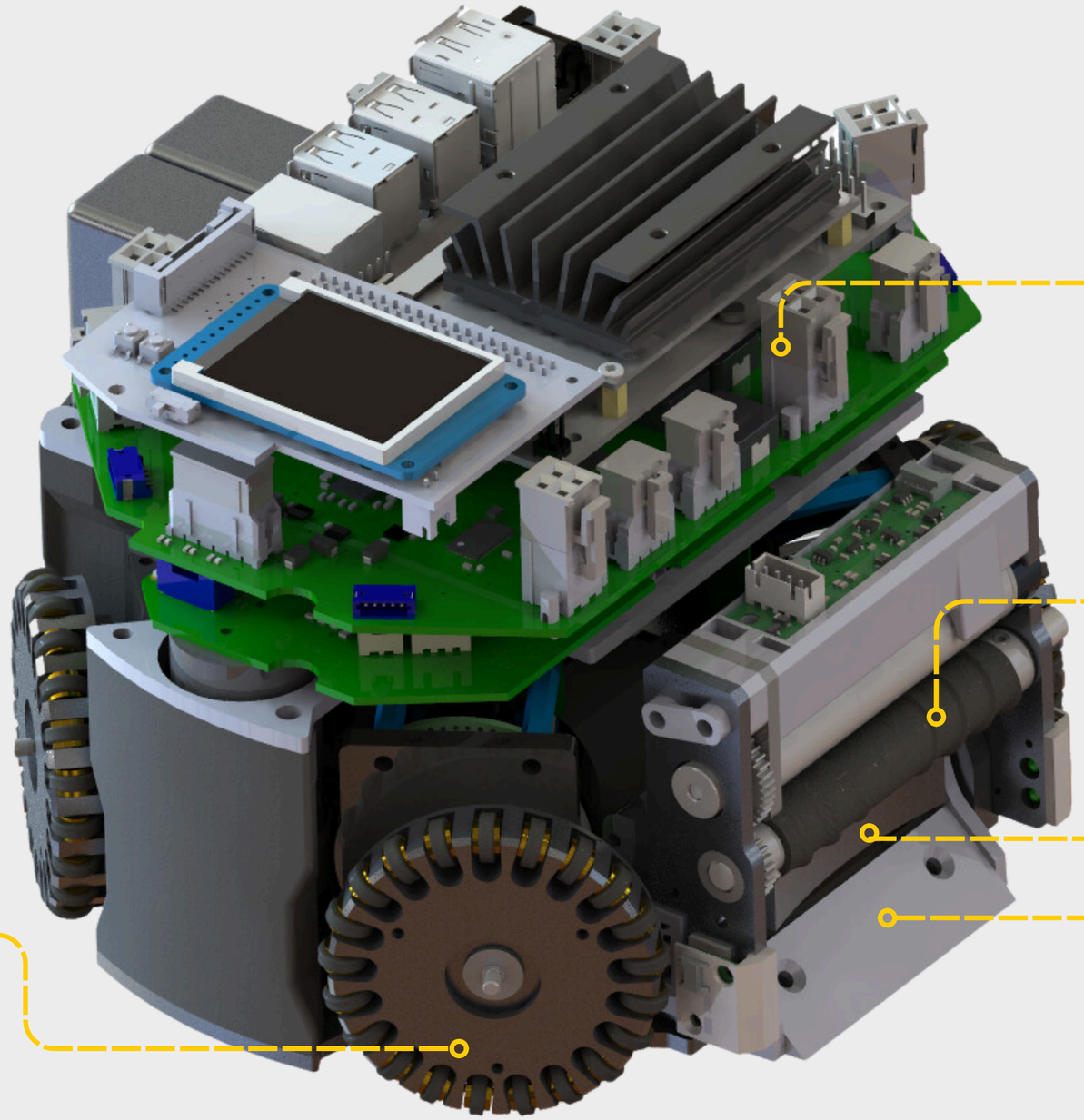
MEET THE ROBOT

SOFTWARE

The colorful dots on the head of the robot are a “fingerprint” that can be detected by the cameras above the playing field to identify the robot. A robot’s real-time position is sent to the main computer where AI algorithms instruct the robot on how to engage with teammates, the ball, and opponent robots.

OMNI-WHEELS

Featuring four full-force wheels with the ability to slide laterally at ease. The positioning of our wheels allows us to move in all directions.



ELECTRICAL STACKUP

To give our robots the most innovative and flexible system we can, our electrical components consist of a new onboard computer, motor driver board, power distribution board, UI boards, encoder boards and more!

DRIBBLER

A simple, light-weight and compact damping mechanism using rotation to hold and control the ball.

KICKER

A solenoid-powered kicker. A curved surface allows for better control of the ball!

CHIPPER

A projectile chipper is powered by a solenoid attached to the mid-plate for minimum space occupancy and allows to shoot the ball over an opponent or pass to teammates across the field.

// OUR SUCCESS STORY

2006 Development of the First Generation robots

2009 First Qualification at RoboCup in Graz, Austria

2012 Hosting of North American Open Competition in Vancouver, Canada

2013 First Top-12 Finish @ RoboCup in Eindhoven, Netherlands

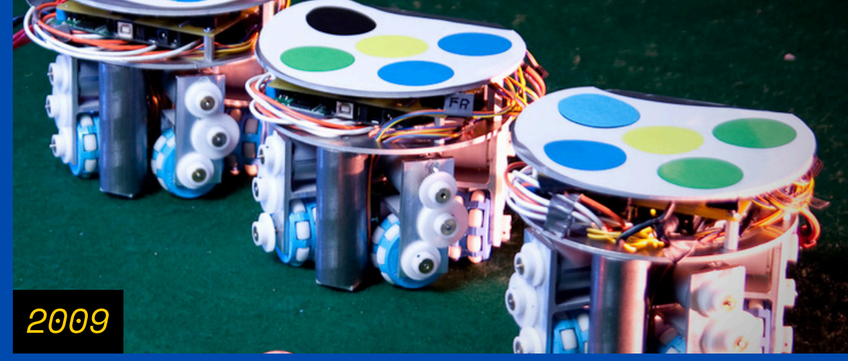
2016 Third Top-12 Finish @ RoboCup in Leipzig, Germany

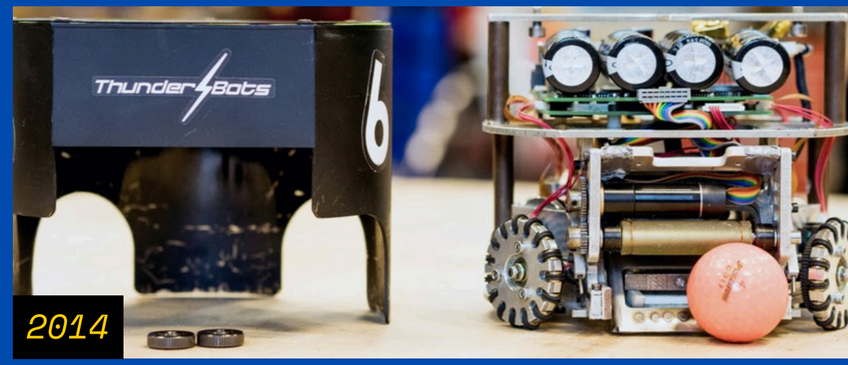
2019 Champions of 6v6 Division at RoboCup in Sydney, Australia

2021 Defending Champions of 6v6 Division @ RoboCup Worldwide

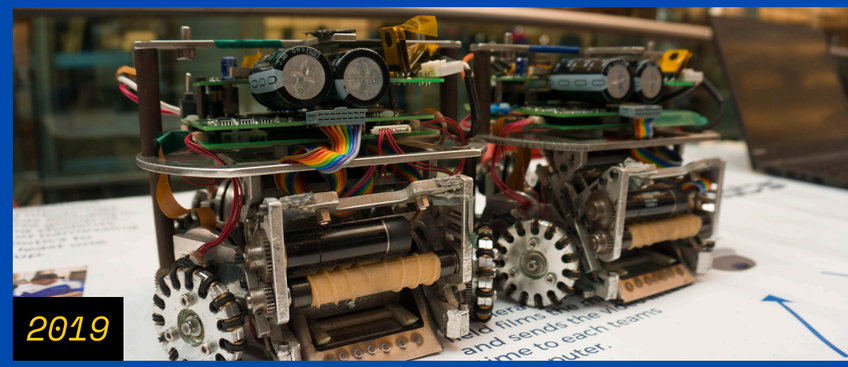
2024 2nd place finish at RoboCup in Eindhoven, Netherlands

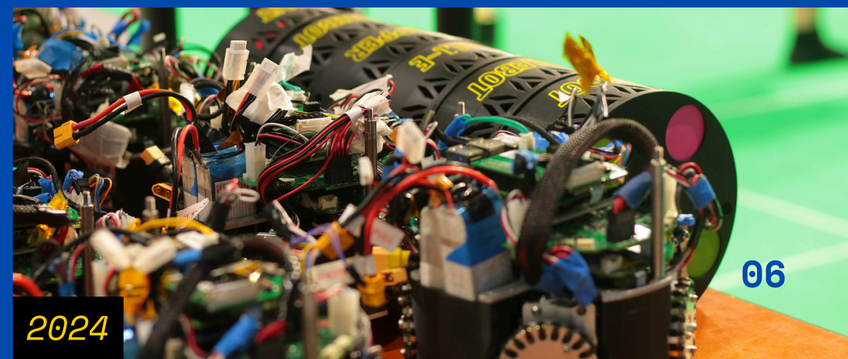
2024-25 Preparing to compete at RoboCup 2025 in Salvador, Brazil!


2009



2014


2019


2024

APSC OPEN HOUSE

PUDDLE JUMPERS - FIRST ROBOTICS

IMAGINE DAY UBC

HIGHSCHOOL DEMOS

OUR IMPACT

UBC Thunderbots is proud to be an impactful member of the community. We frequently collaborate with UBC in hosting info sessions and booths for incoming and current Engineering students. This gives students an exciting opportunity to interact with and learn more about what awaits them in the fields of science and technology. Even within our design team, we strive to keep an ongoing relationship between current and alumni members to exchange knowledge and resources.

We are also in regular contact with high-schools and robotics teams across the Lower Mainland. Our team hosts demos and presentations to students regularly. We've even had team members who were inspired to apply to engineering because of our outreach!

FUTURE PLANS

Your donation will enable us to redesign two major parts of our robot - the drivetrain and chassis. We want to switch to a direct drive system, which means at least 8x4=32 new motors to purchase, one for each wheel.

We're also planning to start designing our 4th generation of robots with a complete overhaul for more reliable manufacturing methods.

Our electrical system also needs a makeover with a new modular design for the motor driver board system. These PCBs and the hardware involved will occupy a huge portion of our budget - this change can only be done **with your help.**

WAYS TO CONTRIBUTE

From gears to motors to electrical components - building a robot can get quite expensive.

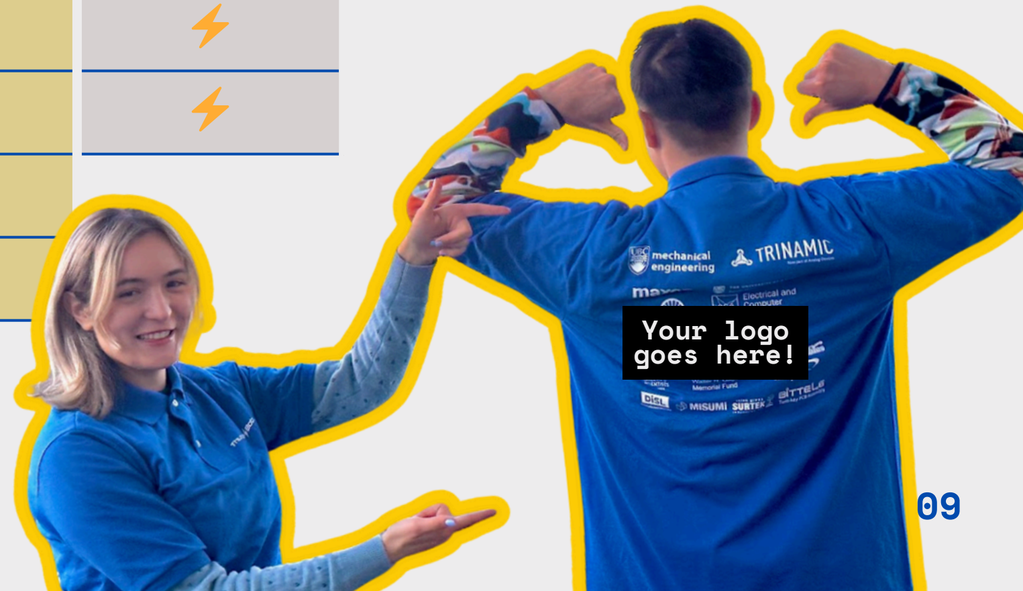
Our yearly cost breakdown looks something like the table below, totaling $62,000 CAD.

Your monetary contributions, discounts on products, or in kind donations can help us continue to compete with world-class teams and reclaim our winning title!

COST BREAKDOWN:	
Competition	30,000
Electrical	16,000
Drivetrain	3,000
Mechanical	12,000
Software	1,500

SPONSORSHIP BENEFITS

	Platinum $5,000	Gold $3,000	Silver $1,000	Bronze $500	Supporter <$500
Invitation to Sponsorship Appreciation Night and Events	⚡	⚡	⚡	⚡	⚡
Access to Team Newsletter	⚡	⚡	⚡	⚡	⚡
Logo on Website	⚡	⚡	⚡	⚡	
Social Media Thank You Posts	⚡	⚡	⚡	⚡	
Logo on Jerseys	⚡	⚡	⚡		
Logo on Events/Competition Banner	⚡	⚡	⚡		
Social Media Sponsored Posts of Your Products/Services	⚡	⚡			
Team Newsletter Feature Article	⚡	⚡			
Invitation to Team Tour and Meet & Greet	⚡				
Distribution of Your Company's Job Opportunities	⚡				



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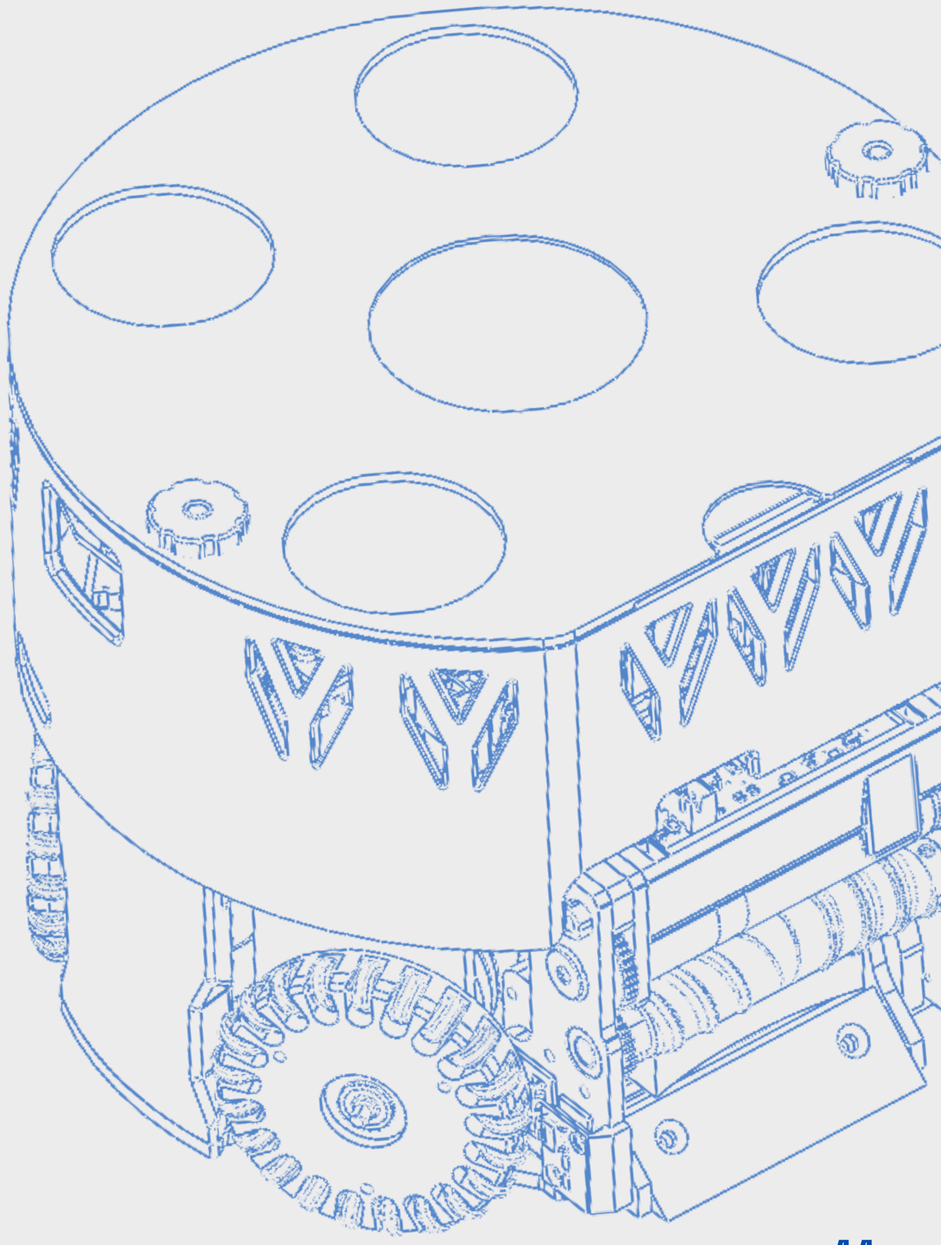

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