The Falcons



About Us

Team 4099 is a student-led <u>FIRST Robotics</u> <u>Competition</u> (FRC) team and a 501(c)(3) non-profit organization based in Poolesville, Maryland that strives to create an inclusive learning community where students can apply their knowledge of Science, Technology, Engineering, and Math (STEM) to real-world problems.

Demographics

95%	of our members are minorities				
50 %	are female				
23%	identify as part of the LGBTQ+ community				
100%	of our members pursue STEM careers				

Our Primary Goals

- 1. Promoting STEM awareness in our community
- 2. Removing barriers to STEM interest for underrepresented groups
- 5. Readying our students for college and the workforce with real-world experiences
- 4. Ensuring that our students have fun and make friends along the way

About **SOLUTION** FIRST

Since 2012, Team 4099 has competed in the annual <u>FIRST Robotics Competition</u> (FRC), a world-wide robotics tournament that gives students the chance to:

- Design, build, program, and wire a robot from scratch within 6 weeks
- Compete alongside and against other teams in district and international events
- Learn real-world engineering through industry standard practices
 - o CAD, CNC milling, PID control, 3D printing, etc.
- Develop leadership, communication, problem solving, and teamwork skills

We compete in the FIRST Chesapeake District against teams from Maryland, Virginia, and D.C.

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Competition Achievements

2021: Infinite Recharge

• Won the District Chairman's (Impact) Award, the most prestigious award at FIRST, for being a role model team for inspiring respect and honor for science and technology

2022: Rapid React

- World Finalists at the <u>FIRST Championship</u> (out of 2700+ competing teams)
- Won the "Industrial Design Award" for our robot's balance between form, function, and aesthetics
- Won the "Autonomous Award" for our robot's consistency, reliability, and high-performance during the autonomous period of the game where robots run purely on software
- Won the <u>Indiana Robotics Invitational</u> (IRI), an exclusive competition comprised of the best teams in the world

2023: Charged Up

- Reached the playoffs in our division at the <u>FIRST</u>
 <u>Championship</u>
- Won the "Innovation in Controls Award" for our innovative control system
- Won the "Creativity Award" for our enhanced game strategy
- One of our students won the "Dean's List Finalist Award" (Only two selected out of all nominated students in the Chesapeake District) for being an excellent example of a student leader who embodied the mission of FIRST

2024: Crescendo

- Qualified for the <u>FIRST Championship</u> by being one of the top 11 teams in the Chesapeake District
- Won the "Quality Award" for our robot's robustness
- One of our students won the "Dean's List Finalist Award"

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Promoting STEM

In addition to our competition success, our sponsors play the pivotal role of giving our team the means to engage hundreds of students with STEM with our summer programs and outreach initiatives.



Summer Programs

RoboCamps (since 2018)

- Taught elementary and middle school students STEM skills hands-on by guiding them to design, build, and program a VEX IQ robot to compete in a friendly competition
- Reached ~20 campers/session (for four sessions) across
 Maryland annually
- Provided scholarship opportunities to under-resourced students interested in STEM

FalconCamps (since 2021)

- Taught middle and high school students 3D design and Python programming virtually
- Reached ~20 campers/session (for two sessions) across the US annually
- Provided scholarship opportunities to under-resourced students interested in STEM

<u>FalconMath</u> (since 2024)

- Taught middle school students Geometry, Algebra 2, and Precalculus to prepare them for high school-level math classes
- Reached ~10 students in our first year running the program



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Outreach

2022: MSBR and NASA Goddard Telescope Reception

 Attended a high-level reception of NASA's best engineers to share our robot and achievements throughout the season

2018-Present: Community Events

- Poolesville Day, MCPS STEAM Festival, KID Fest, MITRE STEM Expo
 - Ran a booth to allow people to experiment with driving VEX IQ robots and see our competition robot in action to inspire excitement for robotics

2022-2023: Moco-Support

- Petitioned the Montgomery County Board of Education for support of FIRST teams
 - Brought together 12 teams across eight different high schools
 - Spoke before the board and wrote a white paper proposal

2019-2023: VEX Mentoring

- Mentored middle school VEX teams--64840C Robo-Barons, 40990A Dark Knights, and Team 4099A Madness Robotics--on designing, building, and programming a robot to compete in an engineering challenge
- Provided financial sponsorship to help them purchase materials throughout the season

2023-Present: FLL Mentoring

Provided technical and strategical guidance to 3 rookie
 FIRST Lego League teams (10 students each) participating in the <u>FIRST Lego League Challenge</u>

Overview of Funding

We fundraise (and receive other methods of support) through a variety of sources, including local business/company sponsorships, grants, and our outreach initiatives. The money we receive is budgeted and spent within our two categories: Competition and Outreach.

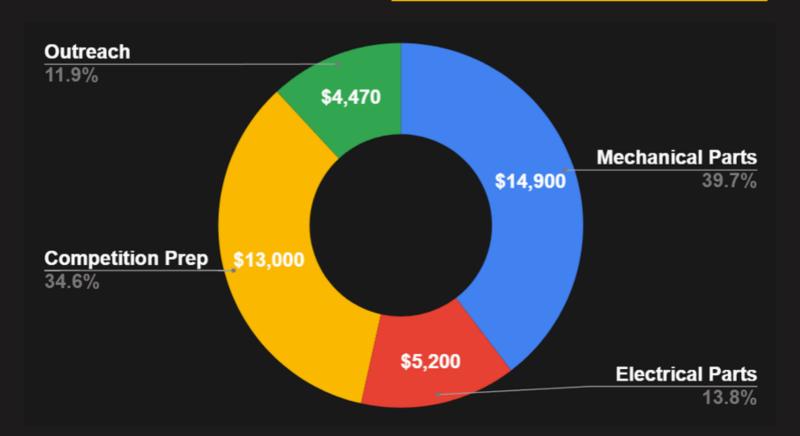
Competition

- Mechanical Parts: \$14,900
 - Tubing, plates, shafts, power tools, belts/pulleys, fasteners
- Electrical Parts: \$5,200
 - Motors, pneumatics, CAN devices, power regulators, computing devices
- Competition Preparations: \$13,000
 - Two district events: \$6,000
 - District Championships: \$4,000
 - Trailer: \$3,000

Outreach

- Summer Programs: \$3,000
 - Workspace rent, virtual meeting subscriptions:
- FLL Mentoring: \$1,470
 - Team registration: \$250
 - Robot kit: \$540
 - Game elements and field parts: \$90
 - Competition registration: \$90
 - Miscellaneous (shirts, food, etc.): \$500

Total Projected Cost: \$37,570



Breakdown of our total expenses projected for the 2025 season

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Sponsor Benefits

Team 4099 offers exclusive benefits to companies that sponsor us for the upcoming season. While most of our sponsorships are monetary, we are open to receiving supplies and materials (power tools, 3D printers, etc.) as well. Here are the benefits your company will receive based on the size of your donation:

Benefits	Bronze	Silver	Gold	Platinum	Diamond		
Thank you letter and team photo	✓	✓	✓	✓	✓		
Sponsor Newsletter							
Logo on our team website		✓	✓	✓	✓		
Logo on our team shirts							
Logo on our robot				✓	✓		
Shoutouts on our social media							
Team progress updates					✓		
Mention at competitions							
Price Ranges	\$1+	\$500+	\$1000+	\$2000+	\$4099+		
	Size of logo will be ordered and scaled by sponsorship tier						

Contact

All interested sponsors may reach our team at contact@team4099.com. In the email, please include:

- Company name
- Type of donation (monetary, material, or mentorship)
- Amount of money or the type of product
- Contact methods
- Any questions or requests

You should hear back from our team in within a week.

