

Planetary Drive Robotics

FIRST® Robotics Team #2856

Sponsorship Information Packet









Introduction & About Us

Dear Prospective Sponsor,

Team Planetary Drive is hoping that you will support us in this year's FIRST® Robotics competition season. FIRST® Robotics is a yearly competition for high schoolers. Each year, our team works hard to design, build, and program a brand-new robot to compete against other teams across the world. We strive to improve and get better every year, and we think that your contribution will help us reach that goal.

Founded in Fayette County (Lexington, KY) in 2009, we have been competing in the FIRST® Robotics competition ever since. We seek to offer all the high schoolers in our district an opportunity to develop STEM skills learned in the classroom by applying them through robotics. Through this experience, members build skills in engineering, problem-solving, coding, teamworking, and more.

In 2024, our performance at the competition was the best that it had been in more than a decade. This year, we seek to improve even more, and your support is critical to attain that objective. Your support and funding would allow us to purchase new and improved parts for our robots, as well as cover various costs and fees associated with the competition.

We believe that you share many of our values regarding STEM education and hope that you will consider partnering with us. Your contribution would make a great impact on our team and reflect positively on your organization. If you have any questions or if you would like to communicate with us directly through email or by setting up a meeting, please feel free to contact us at planetarydrive2856@gmail.com, and we will get back to you as soon as possible.

Any contributions would be greatly appreciated. Thank you for your consideration.

Sincerely,

Planetary Drive Robotics | FRC #2856 | https://teamplanetarydrive.com

Fayette County, Lexington, Kentucky | Paul Laurence Dunbar & Lafayette HS





Mission Statement

The primary goal of the Planetary Drive FIRST® Robotics Team 2856 is to provide students with leadership and STEM opportunities, and to create an environment that fosters creative problem-solving while promoting a unique atmosphere of competition and cooperation within our global and local communities. The team provides an opportunity for members to advance their engineering and scientific skills, while allowing them to develop a fundamental understanding of leadership, a cooperative spirit, and gracious professionalism that defines any successful endeavor. Planetary Drive will continue to represent Fayette County in STEM with a strong, competitive presence in FIRST® and through community service events.

Sponsor Benefits

Through contributions to our robotics team, sponsors help create a lasting positive impact on the future generations of STEM students, engineers, and computer programmers. Your support gives many students the opportunity to explore their passions and develop valuable skills through hands-on work. Supporting us not only reflects positively on your organization, but it is also a great way to increase community engagement! To increase brand exposure, sponsors who donate could also get:

- Logo on our team T-shirts.
- Logo on our robot.
- Logo on our website.
- Social media exposure.
- Community exposure.
- Lasting impact on our community.

Sponsors who donate more than \$1000 will have their logo and name on our team's robots and shirts.





Team Expenses & Needs

Unfortunately, robotics is not cheap. Although we do our best to minimize unnecessary spending, each year, we spend thousands of dollars to build a new robot. Upgrading and getting newer and better parts for our robot is often required to compete at a high level, but that can easily cost thousands, which is why we require your support throughout our build season.

Expenses vary year by year depending on the specific parameters of the competition – the following table is a breakdown of estimated expenses based on previous years.

Category	Description	Cost
Competition	Competition Registration	\$6300
	Additional Competitions	\$3000
	Transportation and Lodging	\$3500
Robot Build	Raw Materials	\$1000
	Electronics & Standard Parts (Motors, Sensors, etc)	\$1500
	Potential Upgrades	\$2000
	Tools and Equipment	\$1000
Other	Promotional (t-shirts, brochures, outreach, etc)	\$500
	Miscellaneous	\$500
Total Yearly Cost (estimate)		\$15K+

Any type of contribution, including cash, raw materials, robot parts, or anything else, will be greatly appreciated!





Student Benefits, Skills, and Impact

Through robotics, our members develop many skills that are valuable in many different areas. We prepare our members for the future by giving them crucial experience, and your contribution to the team will help build the following skills in the next generation:

Computer Science:

- Java proficiency, working with libraries.
- Independent learning skills.
- Problem-solving and critical thinking.
- Working as a team; GitHub.

Engineering:

- Shop experience: saws, drills, and various machinery.
- Electrical systems and wiring.
- CAD: digital designing and planning.
- Engineering creativity, problem-solving, and working as a team.

Other:

- Finance, managing funds, and fundraising.
- Networking and outreach.
- Managing social media.
- Leadership potential.
- Working with others.

The skills developed in robotics can often be applied in many different fields and are vital for a successful experience in all sorts of environments, including the future workplace.





Team Structure & Composition

Our team is divided into two sub-teams, working simultaneously during the build season (January – April) to make a top-tier robot: the electromechanical and programming sub-teams. Our team is led by a mentor with previous engineering and robotics experience, as well as student officers. In total, we have around 25 amazing members from all sorts of different, diverse backgrounds and cultures. We strive to create an inclusive and fun learning environment for all of our members, and we try to expand our team every single year. Any high school student in Fayette County Public Schools is welcome to join, and we have students from multiple high schools in the area.

FIRST® Robotics

FIRST® is a global non-profit that hosts international robotics competitions for high school students. Every year, in January, a new game is released with a specific theme and scoring guidelines. Regional competitions are usually in March and April, where teams from different states and countries go to compete.

FIRST® provides students with hands-on, mentor-based experiences that build science, engineering, and technology skills. Participants also develop self-confidence, communication, and leadership abilities, all while working in a team to solve complex problems and design, build, and program a robot for a specific annual competition. The organization's core values, known as Gracious Professionalism and Coopertition, emphasize that teams can compete fiercely while also helping and learning from one another.

Photos & Past Competitions

If you are interested in checking out photos from past build seasons or at competitions, check out our website at https://teamplanetarydrive.com or our Instagram @frc_2856.

The most recent competition we competed in was FIRST® Robotics 2025: Reefscape at the Smoky Mountains Regional in Sevierville, TN.





Mentorship

Mentors are extremely important to our team. Through their experience and knowledge, they help guide our members in the right direction. They can help with anything from fundamentals to advanced skills, thus accelerating the learning process. They provide insightful advice and help while supervising and ensuring safe practices throughout the construction of the robot. Mentors can help with the programming, designing, and building aspects. Usually, mentors have experience in engineering or computer science. Our team currently has a mentor as well as a school sponsor, but anyone in the area (Fayette County, Lexington) who is willing to help out is welcome. Please feel free to reach out regarding mentorship by emailing us at planetarydrive2856@gmail.com.

Contact Information

- Team Email: planetarydrive2856@gmail.com
- Student Leadership:
 - o Eric Su (primary) | <u>eric.su@stu.fayette.kyschools.us</u> | <u>eric.su.200@gmail.com</u>
 - o Zach Ye | zachari.ye@stu.fayette.kyschools.us
 - Myles Arnold | myles.arnold@stu.fayette.kyschools.us
- Team Mentors:
 - Mohammad Ameen | <u>mohammadameen335@gmail.com</u>
 - April Gonzalez | <u>april.gonzalez@fayette.kyschools.us</u>
- Addresses:
 - Paul Laurence Dunbar HS, 1600 Man o' War Blvd, Lexington, KY 40513
 - Newton's Attic, 4974 Old US Hwy 60, Lexington, KY 40510