

RoboWarriors

***FIRST*[®] Team 41, WHRHS**

***FIRST*[®] Mid-Atlantic**



Sponsor Brochure

2022-2023

Written by Team 41: RoboWarriors
Watchung Hills Regional High School
www.wheatrobotics.org

Who are the RoboWarriors?

The RoboWarriors – better known as Team 41 – are the Watchung Hills Regional High School (WHRHS) robotics team that competes in the annual FIRST Robotics Competition (FRC). Every year, the team designs, builds and tests a custom robot to compete in a brand-new robotics challenge. The team size changes every year, but we average around forty-five students, working on five different subteams (business, mechanical, electrical, programming and design).

What is FRC?

FIRST, which stands for “For Inspiration and Recognition of Science and Technology,” is a not-for-profit charity organization founded in 1989 to inspire young people’s interest and participation in science and technology. Each year, FIRST designs and runs a series of robotics programs for various age levels, including FIRST Robotics Competition (FRC) for high school students. FRC is the most industrial and advanced robotics competition for high school students. FRC teams design and build their robots completely from scratch, and the designs are limited only by the creativity of the individual teams. FIRST releases the annual challenge in January, and teams have only six weeks to design, build and perfect their entry. It's a grueling six weeks, and along the way, the team members learn valuable lessons about engineering, teamwork, time management, and perseverance.

Mission Statement

Students come into the program with varying levels and knowledge, and by the time they leave they excel in integral skills that will support them in the industries of the future. Team 41 hopes to inspire students, through challenge, and success to pursue STEM education and support their communities.

How do we build a robot?

Every robot is custom designed specifically to meet the unique challenges of the current competition. Since the challenge is different every year, so is the robot. The team designs the robot, chooses the necessary mechanical, electrical, optical and pneumatic components that are commercially available, and then builds whatever else is needed in the high school machine shop. Meanwhile, another part of the team works on the software necessary to drive and control the robot, including specialized targeting software and autonomous control software that can earn valuable bonus points. The hardware and software come together, and then the team tests the robot, makes any tweaks that are necessary and starts practicing the all-important driving skills. If it sounds hard, that's because it is.

Team History

Over its extensive history as FIRST Robotics Competition, Team 41 has won numerous awards and honors, with the 2022 season being its most successful to date. In 2022, the team was a finalist at two district events, quarter finalist at the FMA district championships, winners of Excellence in Engineering, Innovation in Control and Industrial Design awards and semi-finalist in the Roebling Division at the FRC World Championship in Houston. Team 41 has become one of the leading teams in the First Mid-Atlantic District and has qualified for the world championship twice in the past 6 years, both times making it into the playoffs and past the quarterfinals. A complete list of Team 41's accomplishments can be found [here](#).

What started out as a simple program has led to students graduating the program to become entrepreneurs, engineers, business leaders, and many have returned to help the next generation. Throughout the years, the team has fluctuated, but it has remained a key component of the FIRST community in and around the Mid-Atlantic Region. Today, the team has over 40 members, with 4 mentors and 3 advisors from the engineering world. These mentors are here to guide the students and let them learn from their mistakes. They foster an environment in which students are not just given answers but must learn and adapt to not just build the best robot but prepare for their futures.

WHRHS ROBOWARRIORS SPONSORSHIP

How to support the RoboWarriors

WHRHS provides annual support to the RoboWarriors in terms of competition fees and local travel. However, the funding does not cover the annual cost of robot parts, workshop supplies or purchasing upgraded tools and machinery for the team workshop. In 2008, team parents founded a 501(c)(3) non-profit organization, the Watchung Hills Education and Technology (WHEAT) Foundation, to raise funds to support the robotics program as well as other STEM-related events at WHRHS. In conjunction with the WHEAT Foundation, Team 41 has established a corporate sponsorship program to seek additional financial support from the community. The following sponsorship opportunities are available and provide different levels of marketing opportunities:

- Bronze: \$100 - \$499
- Silver: \$500 - \$999
- Gold: \$1000 - \$4999
- Platinum: \$5,000 and above

Companies interested in sponsoring the RoboWarriors for the upcoming season can complete the attached sponsorship form or contact the WHEAT Foundation at wheatfoundation@gmail.com for additional information or to make arrangements to purchase a sponsorship.

More information can be found at the WHEAT website: <https://www.wheatrobotics.org> or in the [WHEAT Brochure](#).

Why sponsor the RoboWarriors?

The RoboWarriors are the engineers of tomorrow. The majority of the team members go on to study STEM-related fields in college, and the valuable skills we learn from our participation in FRC help prepare us to excel in college and beyond. By helping the RoboWarriors today, you are investing in the world of tomorrow. Thank you for your consideration, and we greatly appreciate any support you can provide. In the past few years, the team has expanded in capabilities with new tools such as a CNC, and a new Plasma Cutter which was acquired by the team in 2021. Team 41 would not be able to expand these capabilities without generous sponsor donations. These new expansions have allowed the students on the team to not just create better robots, but also learn new skills from manufacturing to on the spot problem-solving.

Sponsorship Tiers

Level	Perks
Platinum	<ul style="list-style-type: none">● \$5,000 + Donation● Company logo on the Robot● Company logo in the Team Pit area● Company logo on team & WHEAT websites● Framed signed team photo● Periodic updates from the team during build and competition season
Gold	<ul style="list-style-type: none">● \$1,000 - \$4,999 Donation● Company logo in the team pit area● Company logo on the team & WHEAT websites● Framed signed team photo● Periodic updated from the team during build and competition season
Silver	<ul style="list-style-type: none">● \$500 - \$999 Donation● Company logo on the team website● Signed team photo● Periodic updates from the team during build and competition season
Bronze	<ul style="list-style-type: none">● \$100 - \$499 Donation● Periodic updates from the team during build and competition season