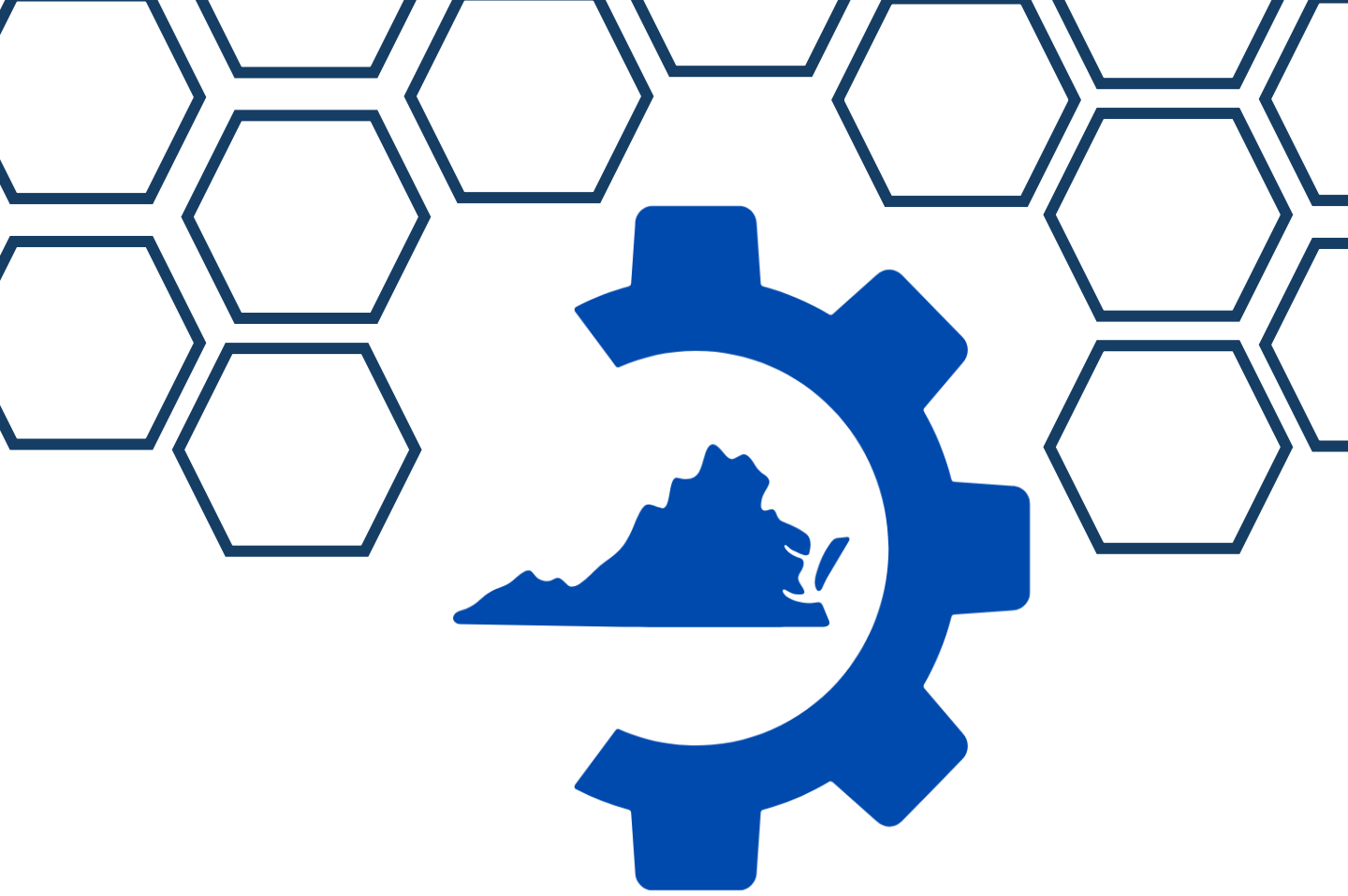

Virginia Robotics Education Foundation

Empowering Youth Through Robotics Education.

Virginia Robotics Education Foundation is a student-led 501(c)(3) non-profit organization.
EIN #99-2731086

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VREF

Team 2509A

Sponsorship Details

About VREF

The Virginia Robotics Education Foundation (VREF) is a student-run nonprofit based in Northern Virginia, dedicated to expanding access to STEM education. Founded in 2021 by a growing team of passionate students, VREF works to share knowledge and experience through hands-on robotics workshops where participants learn to design, build, and innovate with real-world tools.

Our Mission

VREF is dedicated to inspiring the next generation of innovators through robotics education. By offering competitions and hands-on workshops, we aim to foster creativity, critical thinking, and collaboration, thus preparing Virginia students with the skills they need to thrive.

One of our robotics workshops was held in the summer of 2024. This two-day event introduced 25 students to the fundamentals of robotics and engineering design through materials from VEX robotics. After building their robots, students put their creations to the test in a final tournament.

Community Outreach

In the past year alone, VREF has hosted 6 additional workshops. That is one 3-4 hour workshop every two months. This has enabled us to teach and work with over 200 children since the inception of our organization. However, we are still far from finished, as during the 2025-2026 year, we hope to reach new heights, which can be found on our expansion goals on page 7.

Below are details from just a few out of our many workshops

During the summer of 2024, VREF also hosted a workshop for elementary schoolers using VEX IQ parts. Instead of competing, however, they built a robot that was designed to carry a plush animal around an obstacle course.

VREF hosts its February workshop at Langley High School, with 18 students participating.

Our most recent workshop on June 30th was still able to host 4 teams. Even during summer break, VREF remains committed to offering hands-on learning to students willing to learn.

About VEX and Team 2509A

Currently, we support team Blue Wave Elite (2509A) in the VEX V5 robotics competition, a global competition that attracts more than 11,000 teams from over 60 countries.

VEX V5 is a popular robotics system with a wide variety of parts, making it a great starting point for students to build their first robots. Its flexibility makes it easier for beginners to learn the basics of engineering and design.

Through our program, the Blue Wave Elite team strives too:

- ❖Apply our engineering and coding skills to robotics
- ❖Learn more about computer aided design (CAD)
- ❖Collaborate with team members and other teams to build connections and strong communication skills
- ❖Learn problem solving, time management, and financial planning skills
- ❖Connect with other engineering or robotics professionals to further develop our passion

VEX ROBOTICS WORLD CHAMPIONSHIP 2024

PRESENTED BY NORTHROP GRUMMAN FOUNDATION

REC FOUNDATION

VEX Mission Statement:
"We create tools that educators and mentors will use to shape the learners of today into the problem-solving leaders of tomorrow."

Team 2509A Progression

Despite only starting VEX robotics during the 2023-2024 season, the Blue Wave Elite robotics team has already accomplished some amazing feats.

Our team from the 2023-2024 season Over Under

Summer of 2021

In the summer of 2021, a group of middle school students launch the VREF nonprofit to pursue their passion for robotics. From 2021 to 2024, they keep the organization small, hosting about two workshops per year.

2023-2024 Season

Team 2509A, also known as Blue Wave Elite, competes in their first-ever VEX competition. Despite being new to robotics, they reach the semifinals at the Virginia State Tournament.

Summer of 2024

In summer 2024, VREF expanded by hosting larger, more frequent workshops, responding to growing interest and a desire to reach more students.

2024-2025 Season

In just their second year, Blue Wave Elite wins a prestigious NJIT Signature Event, earning a spot at the 2025 VEX World Championship in Dallas. There, they become division finalists and rank among the **top 40 teams worldwide.**

2025-2026 Season

Heading into the 2025–2026 season, *Push Back*, the team has high hopes of returning to the VEX World Championship—this time held in St. Louis, Missouri.

Team 2509A Progression

Our team from the NJIT Highlander Signature Event

Our team while at the 2025 VEX World Championship

2023-2024 Season:

- ❖Semifinalist at the Virginia Vex robotics State competition
- ❖Ranked 5th out of 56 teams present at the competition and out of 150+ teams in the entire state

2024-2025 Season:

- ❖Tournament champion of the New Jersey Institute of Technology Highlander Signature Event
- ❖Tournament champion of Potomac High School Winter Classic
- ❖Semifinalist at the Virginia Vex robotics State competition
- ❖Division finalist at the 2025 VEX Robotics World Championship. With 10 divisions and each division consisting of over 80 of the best teams from around the world, this is truly an impressive achievement.

Expansion Goals

Goal 1

VREF plans to increase its camp capacity from 18–24 students to 24–30+ in future workshops. However, we currently only have enough parts for four working robots. To maintain small team sizes of fewer than five students, ensuring that everyone gets hands-on experience, we need around two additional robot kits to support this goal.

Goal 2

In addition to increasing our workshop capacity to 30+ students, VREF also plans to grow the frequency of our workshops. In the coming year, we hope to host at least one robotics workshop every month. This would potentially grow the number of students we teach per year from 120 to over 360.

Goal 3

Furthermore, to make the camps more appealing and challenging, VREF is working to change the style of our end-of-camp competitions. Currently, every camp plays the same tournament-style game at the end, with teams trying to score as many objects in a goal as possible to score points. However, we want to add more challenges and increase the variety of the competitions so that the challenges can bring out more creativity and teamwork between the students.

Goal 4

Lastly, our most ambitious goal is to branch off into more states/different areas, such as Maryland. If we can grow the scope of our operations, we will hopefully be able to continue the legacy of VREF even after the current leadership team goes off to college.

Current and Future Expenses

Team 2509A relies heavily on the aid from sponsors, which allows their team to continue to follow their passion for robotics. Additionally, as VREF works to expand the scope of its influence, more parts will be needed to support more workshops and kids.

VEX V5 parts can be very costly, especially the electronics like the brain, radio, and battery, which are vital to make just one single robot. If VREF is to support around 6 teams at every camp, they will need to buy the parts for two new whole robots at a minimum, as well as the parts to replace any broken materials from the previous year.

Below is a spreadsheet that breaks down the estimated costs.

Category	Specifics	Estimated Cost
Competition Registration Fees for 2509A	Local Tournaments, Signature Events, World Championship	$2,300
Robot Materials for 2509A	Metal, motors, game field, etc.	$1,700
Robotics Workshops Extra Equipment Costs	Extra brains, controllers, radios, metal, screws, etc. for multiple teams.	$5,000
VREF Tools and Game Elements Costs	Screwdrivers, wrenches, extra fields, different game objects	$600
Total Cost		$9,600

Sponsorship Tiers

Our organization thrives thanks to the support of our sponsors. Everything we do depends on the generosity of businesses and individuals committed to investing in the world's future engineers and leaders.

Contribution				
Benefits	Diamond ($2,000+)	Gold ($1,000+)	Silver ($500+)	Bronze ($200+)
Logo and link to company page on website	✓	✓	✓	✓
Logo Displayed on team banner and listed at robotics workshops	✓	✓	✓	
Logo on team competition T-shirt and shoutout on social media.	✓	✓		
Special shoutouts at robotics workshops, top placement on website, and logo on team robot	✓			

Donation Info

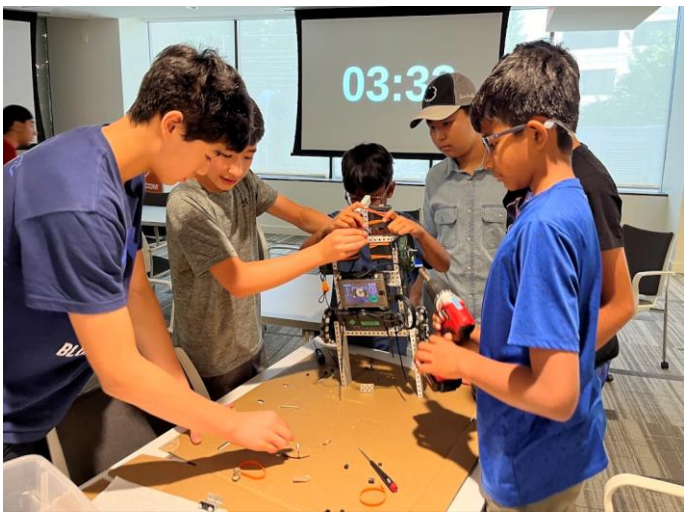
If you are interested in sponsoring our organization, please mail a check to 7580 Potomac Fall Road, McLean, VA, 22102. Please pay to the order of "Virginia Robotics Education Foundation“

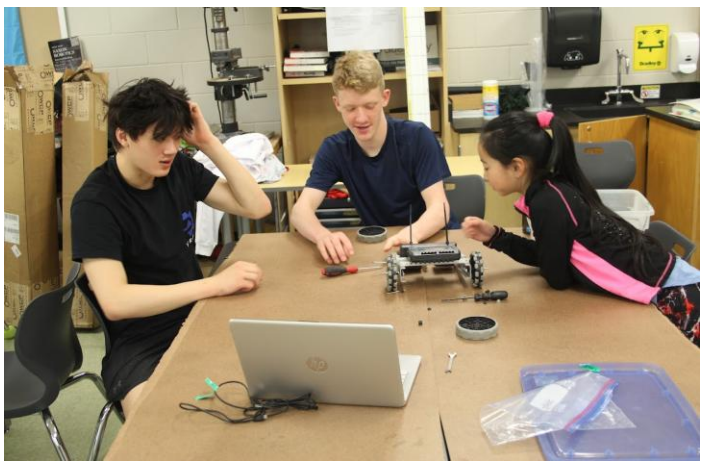
Alternatively, you can either PayPal or Zelle us at VirginiaRobotics@gmail.com.

However, if you decide to donate past 12/31/2026, our team will be unable to put your company logo on our team flag or shirt.

If you have any additional questions, comments, or concerns, please email us at VirginiaRobotics@gmail.com or visit our website at https://varobotics.org.

Thank you!





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