INSPIRING INNOVATORS, CREATING OPPORTUNITY

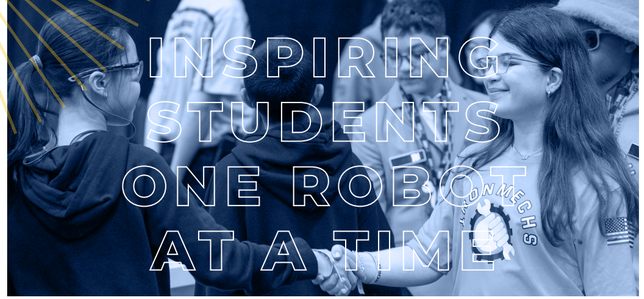
ROBOTICS EDUCATION & COMPETITION FOUNDATION (RECF)

2024-2025 ANNUAL REPORT



















BEYOND THE GEARS 2024-2025

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MISSION

The Robotics Education & Competition Foundation's global mission is to provide every educator with competition, education, and workforce readiness programs to increase student engagement in science, technology, engineering, math, and computer science.







VISION

We see a future where every student designs and innovates as part of a team, overcomes failure, perseveres, and emerges confident in their ability to meet global challenges.

LETTER FROM OUR CEO

Thanks to the efforts of our partners, volunteers, educators, parents, students, and dedicated staff, the RECF continues to strengthen its position not only as one of the world's largest student robotics communities but as a proven workforce pipeline preparing the next generation of skilled technical talent.

The RECF engaged more than 320,000 students across all 50 states and 125 countries. These students aren't just building robots; they're building the mindset, confidence, and technical foundation needed for the advanced manufacturing, engineering, artificial intelligence (AI), and technology careers of tomorrow.

Our programs have always focused on hands-on, applied STEM learning, such as our Industry Certifications Program, which provides students with proof of achievement and prepares them for careers before they graduate from high school. Our certifications are now approved in 15 states and growing.

The VEX AI Robotics Competition challenges high school and college teams to design, build, and program advanced robots using AI, sensors, computer vision, and industry-standard tools. Students are learning real-world AI applications that mirror those used in autonomous vehicles, advanced manufacturing, and robotics engineering.

With over 2,200 teams, the RECF Aerial Drone Competition grew 40% this year, continuing to be one of our fastest-growing programs. This momentum reflects the excitement around drones and the vital skills students gain through flight control, coding, safety protocols, and engineering challenges.

Our Girl Powered initiative also continues to expand its reach and impact. More than 80 workshops and events held around the world, these inspiring girls gained hands-on experience in robotics, teamwork, and engineering.

Every year, the creativity and hard work of our students culminate at the VEX Robotics World Championship, the world's largest robotics competition. Congratulations again to our 2024–2025 World Champions, Online Challenge winners, Inspiration All-Stars and all of our dedicated participants around the world. Your accomplishments highlight what is possible when determination, teamwork, dedication, and technical excellence come together.

DAN MANTZ
CEO, RECF



OUR BOARD OF DIRECTORS

ROBOTICS EDUCATION & COMPETITION FOUNDATION BOARD



DAN MANTZ
CEO, RECF



DR. CORI LATHAN, PH.D
CEO, De Oro Devices



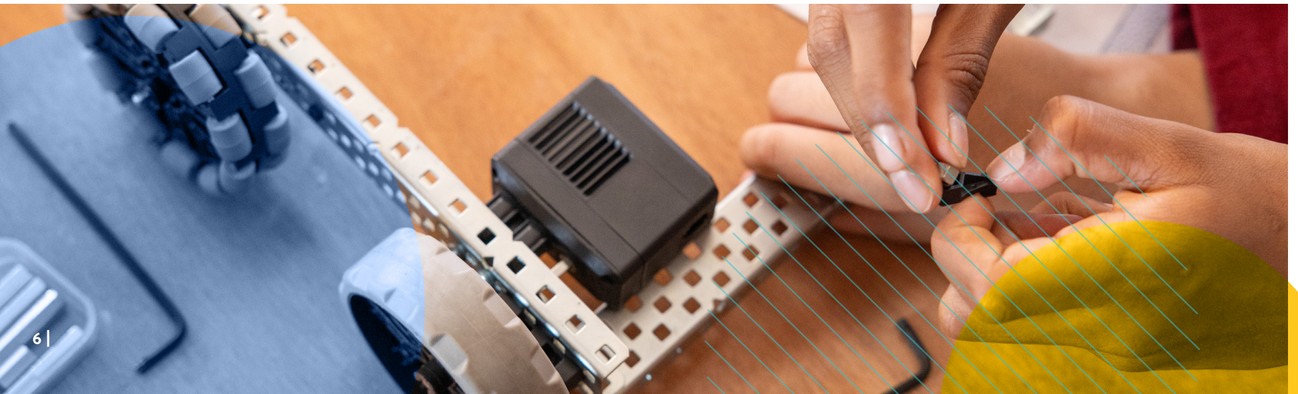
MIKE HARRIS
Chief Innovation and Technology Officer, SharkNinja



MARY LOU EWALD
Director, Southern Center of Robotics Education (SCORE); Director of Science & Math Outreach, Auburn University



DR. SHELLY GRUENIG, PH.D
Founder & CEO, Be Greater Than Average



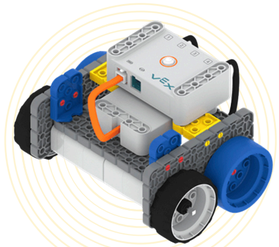
OUR PARTNERS

The Robotics Education & Competition Foundation is grateful for the generous support of our sponsors who partner year-round to provide team grants, support local tournaments, state championships, and the VEX Robotics World Championship. We value their commitment to advancing student interest and engagement in STEM.

Google
Google.org
NASA
VEX ROBOTICS
Texas Workforce Commission
DSEC Defense STEM Education Consortium
TESLA
Northrop Grumman Foundation
ROBOLINK
EATON
Mazda Foundation
Palmetto Partners
Drone Competition Gates
Kettering University
Kids in STEM
TNVR TN Valley Robotics
Glenn W. Bailey Foundation
America's Navy
Swagelok
Chevron
GDIT
amazon
Harry W. Bass, Jr. Foundation
Nidec
WPI
DELL
AVNET
MathWorks
U.S. Air Force Special Warfare
Microchip
Honeywell
Microsoft
ShopFloor Coffee

PROGRAM CONTINUUM

VEX GO ROBOTICS COMPETITION



ELEMENTARY

GRADES 2-4

- VEX IQ Robotics Competition
- VEX GO Robotics Competition





- VEX IQ Robotics Competition
- Aerial Drone Competition
- VEX V5 Robotics Competition

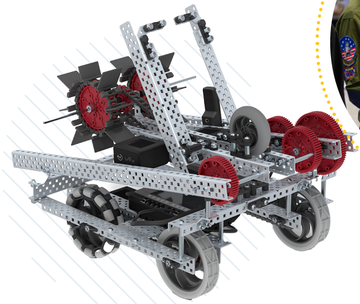
MIDDLE SCHOOL

GRADES 5-8



AERIAL DRONE COMPETITION

VEX V5 ROBOTICS COMPETITION





HIGH SCHOOL

GRADES 9-12

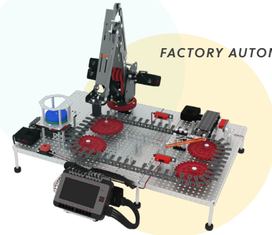
- VEX V5 Robotics Competition
- SkillsUSA
- JROTC Robotics Competition
- Aerial Drone Competition
- Factory Automation Competition
- VEX AI Robotics Competition
- Industry Certifications
- International Robotics Honor Society

- VEX U Robotics Competition
- Factory Automation Competition
- VEX AI Robotics Competition

POST-SECONDARY

COLLEGIATE

FACTORY AUTOMATION COMPETITION



THE AERIAL DRONE COMPETITION: STUDENT DRONE PROGRAM IN THE US SOARS TO NEW EDUCATIONAL HEIGHTS

The Aerial Drone Competition's Mission 2025: Gravity, hosted by the Robotics Education & Competition Foundation (RECF), celebrated another exciting season for thousands of middle and high school students nationwide. With the drone industry projected to exceed $128 billion by 2030, the program provides timely, hands-on learning that aligns with real-world growth in aerospace, technology, and robotics. Supported by major partners like NASA, DoD STEM, and Google.org, the competition features a lightweight programmable drone, giving students practical experience and exposure to future career pathways.

This season, over 11,000 students across 42 states participated in local and national events that emphasize teamwork, creativity, and problem-solving. Participants worked together to complete four missions designed to challenge their technical abilities and strategic thinking—an experience that RECF leaders say prepares students to become the innovators of tomorrow.

Want to learn more about this high-flying STEM experience? Be sure to read more!





The Aerial Drone Competition offers a dynamic, fun, and engaging STEM educational experience that prepares students with the skills they need to become tomorrow's leading innovators for a variety of industries that require the many uses for drone expertise.





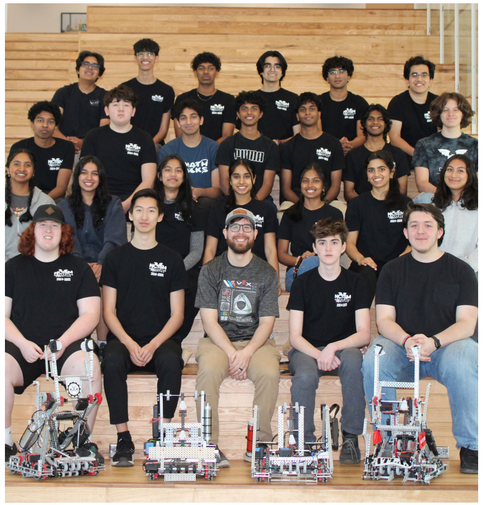




MEET MATT HILTON: EMPOWERING STUDENT LEADERS THROUGH VEX ROBOTICS

At the North Carolina School of Science and Mathematics–Morganton, computer science instructor Matt Hilton is shaping far more than technical skills—he's building a thriving, inclusive robotics community from the ground up. Since the campus opened in 2022, Hilton has fostered a program where students of all backgrounds feel welcome, whether they're seasoned builders or brand-new to robotics. His student-centered approach empowers learners to take ownership of their experience, organizing their own teams, managing schedules and budgets, and driving their design decisions with Hilton serving as a supportive guide.

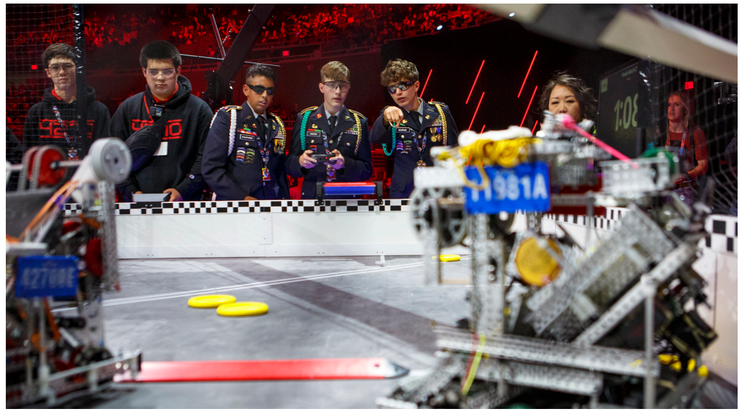
This hands-on leadership model is already paying off. All four VEX V5 Robotics Competition teams reached the North Carolina State Championship this past season, with Team 56727D earning the Skills Champion Award and two teams qualifying for the 2025 VEX Robotics World Championship—remarkable achievements for such a young program. Beyond trophies, the robotics culture Hilton has cultivated emphasizes collaboration, problem-solving, and mutual support, helping students grow into confident leaders on and off the competition field.



We want everyone to feel like they belong in robotics, whether they've been building robots for years or are totally new.

Curious to see how far these student-led teams can go? Dive into the full story and get inspired.

JROTC CADETS EXCEL IN ROBOTICS



The Robotics Education & Competition Foundation offers the VEX V5 Robotics Competition to JROTC programs across all U.S. service branches, giving cadets a hands-on way to apply their leadership training through robot design, programming, and competition. At Steinbrenner High School in Tampa, Team 11981A "Apollo" shared how robotics has strengthened their problem-solving, teamwork, and resilience. In their first season, the students struggled with a basic robot and consistent last-place finishes, but they credit JROTC principles—especially learning from failure—with helping them grow into stronger competitors and leaders.

Through perseverance and clearly defined roles, the team transformed, ultimately winning the National Championship as sophomores. Each student contributes unique strengths, from programming to strategy to documentation, creating a well-balanced, collaborative unit. Their coach emphasizes leadership development, accountability, and extensive practice—often 10–12 hours a week—as the foundation of their success. He also highlights the supportive robotics community, where teams share ideas and solve challenges together, strengthening both JROTC and traditional high school programs.

During the 2024-2025 season, all four Steinbrenner JROTC teams qualified for the National Championship, and the students found success beyond robotics. Members have earned prestigious scholarships and are pursuing fields such as aerospace engineering, intelligence and security systems, mechanical engineering, and nuclear engineering. Their coach, Sergeant Notto, reflects proudly on the growth of the program he once felt unsure about, hoping more schools will adopt JROTC robotics so future cadets can experience the same transformative opportunities.

> **Some of these teams get on their forums, and they'll talk to each other about problem-solving and strategies. I attribute that communication to being why my teams have been successful. It's the cooperation from traditional high school teams being able to give advice, and then we pass that on to the JROTC teams to help them.**

Discover the inside story of a JROTC robotics team that went from last place to national champions—read the full journey here!

PLTW & RECF: POWERING THE FUTURE OF ENGINEERING AND ROBOTICS EDUCATION

Project Lead The Way (PLTW) and the Robotics Education & Competition Foundation (RECF) have partnered to strengthen engineering and robotics education by aligning PLTW's curriculum with RECF's industry-recognized certifications (IRCs). This collaboration helps students build a strong foundation for Pre-Engineering and Robotics credentials, while PLTW provides guidance to close remaining curriculum gaps and ensure students are well-prepared for certification exams.

Developed by engineers, educators, and industry experts, RECF's certifications span specialties including Aerospace, Chemical, Civil, Electrical, Mechanical, Computer Science, and Robotics. Schools in states where the certifications are approved are often eligible for CTE/Perkins funding. RECF certifications combined with additional preparation through science courses, CTE programs, and robotics competitions can further strengthen student readiness and prepare them for today's tech workforce.

This partnership represents a major step in preparing the next generation of STEM professionals by combining PLTW's proven curriculum with RECF's rigorous, industry-backed credentials. Together, the organizations are expanding opportunities for students to gain meaningful skills, real-world experience, and a competitive edge as they pursue careers in engineering and robotics.



Unlock the full story—scan the QR code and discover how this collaboration is shaping the future of STEM education.



THE RECF BY THE NUMBERS

TEAMS BY GRADE



331
COLLEGE TEAMS



14,058
HIGH SCHOOL TEAMS



13,020
MIDDLE SCHOOL TEAMS



27,703
ELEMENTARY SCHOOL TEAMS
(VEX IQ Robotics Competition / VEX GO Robotics Competition)

55,112
TOTAL TEAMS

3,613
EVENTS HELD (2024-2025 SEASON)

316,271
STUDENTS







80+
Girl Powered
WORKSHOPS | OCTOBER











125
COUNTRIES/NATIVE NATIONS PARTICIPATED

FINANCES 2024-2025

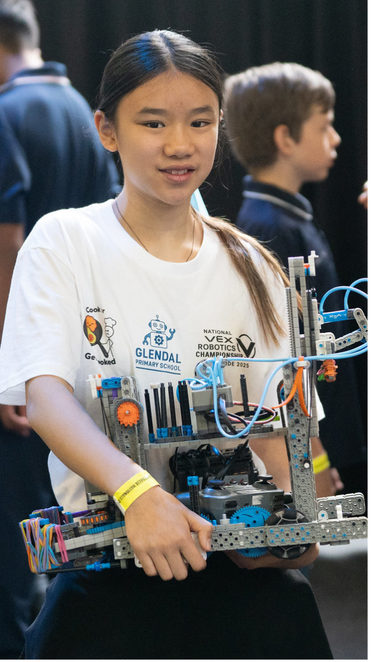
REVENUE AND SUPPORT	TOTALS
Contributions and Grants	$6,246,060
Event Income	$11,564,934
Other Income	$857,483
TOTAL INCOME	$18,668,476

EXPENSES	TOTALS
Employee Costs	$6,141,468
Advertising	$457,582
Travel	$590,351
Insurance	$503,693
Facility	$63,922
Direct Event Support	$9,733,356
Office Expense	$1,132,841
TOTAL EXPENSES	$18,623,214

NET INCOME	$45,263

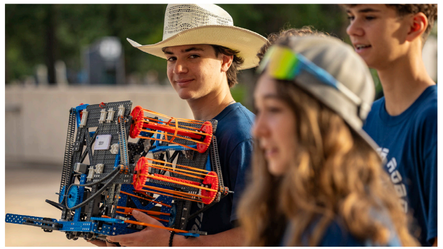
*Draft financials included

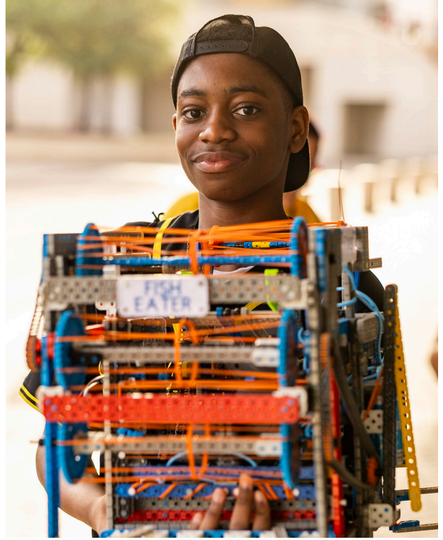



GLENDAL
PRIMARY SCHOOL
NATIONAL
VEX
ROBOTICS
CHAMPIONSHIP

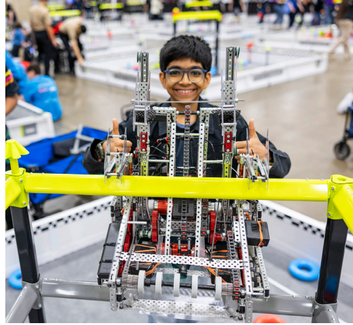







FISH EATER


WARRIOR
BATTALION
65851A






MAD HATTERS










AERIAL DRONE
COMPETITION

Discover what the Robotics Education &
Competition Foundation can do for your community.

GET INVOLVED

Get connected and learn more about
our impact online at recf.org.

CONTACT US

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