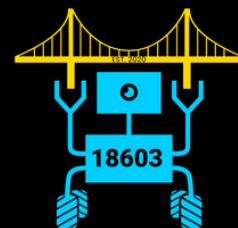


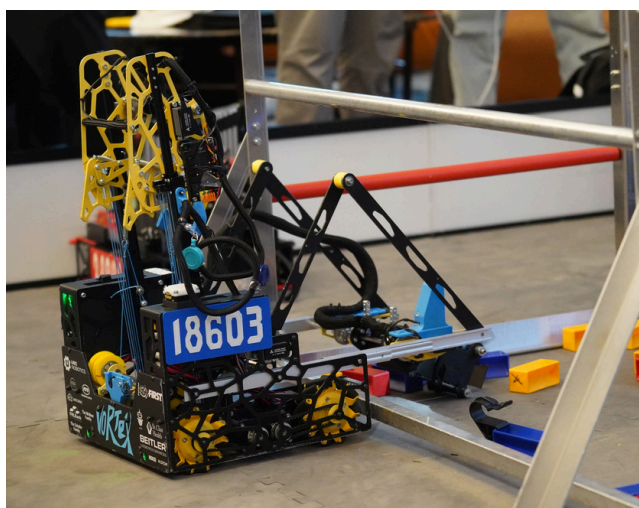
TERABRIDGES

FIRST Team 18603 | Pittsburgh, PA



TeraBridges Year in Review 2024-2025

FIRST Tech Challenge Robotics Competition Team 18603 | Upper St Clair High School



FIRST 2025 CHAMPIONSHIP

website: www.ftc18603.org • email: terabridges@uscrobotics.org • instagram: [@terabridges_18603](https://www.instagram.com/terabridges_18603)

Who We Are & What We Do:

TeraBridges is Upper St. Clair School District's student-led FIRST Tech Challenge (FTC) robotics team, open to students of all experience levels. United by a passion for STEM, team members gain hands-on experience in engineering, programming, electronics, leadership, and design, all while learning from dedicated mentors who are professionals in their fields.

Each season, TeraBridges is tasked with designing, building, and programming a competition-ready robot to tackle a dynamic game challenge—working under strict time constraints, budget limits, and FTC rules.

Beyond the competition season, the team remains actively engaged in outreach, hosting events and initiatives that aim to inspire future innovators and expand access to STEM in the community.

TeraBridges is more than just a robotics team—it's a collaborative environment where students grow as problem-solvers, leaders, and changemakers.



First Place Connect Award - Edison Division at FIRST WORLD Championships, Houston TX

Message from our Team Captain:

This year has truly been the most successful season in TeraBridges' history. For the first time, we qualified for the Pennsylvania State Championship—and exceeded expectations by earning a spot at the **FIRST World Championship** in Houston, TX. Out of the 8,800 teams worldwide competing in the FIRST Tech Challenge (FTC) program, only 256 advanced to Worlds, and we were proud to **finish in the top 57** overall. At the Championship, we placed 8th out of 64 teams in our division and were honored to be selected as the 7th place Alliance Captain—an incredible milestone for our team.

TeraBridges was one of just **four teams from Pennsylvania** to qualify for the World Championship, and notably, we were the **only FTC team from Western Pennsylvania** to earn this distinction. Being able to represent our region on such a prestigious, global stage was both humbling and inspiring.

We were also thrilled to receive the **1st Place Connect Award at Worlds**, recognizing our outstanding efforts in building meaningful relationships with industry professionals and STEM leaders throughout our region. Competing alongside so many talented teams has only deepened our motivation to grow and improve.

Over the past year, we've dedicated thousands of hours to learning, problem-solving, and refining every aspect of our robot. The result was not just a high-performing machine, but a stronger, more united team. Building and maintaining a competitive FTC team is no small feat, but through detailed planning, strategic design, and creative collaboration, we laid a foundation that will support TeraBridges' success for years to come.

Looking ahead to the 2025–2026 season, our focus will shift toward mentoring and transferring knowledge to our younger members while continuing to build on the approach that brought us so far this year. Combined with the continued support of our experienced and passionate mentors, I'm confident that TeraBridges will reach even greater heights.

I am incredibly proud of everything our team has accomplished—and I can't wait to see what we achieve next.

Ishaan Sharma - Captain

2024-2025 Year In Review

DECEMBER 7TH 2024

Green & Red Scrimmage

- Secured 1st place out of 18 teams
- Highest Auto Ranking

DECEMBER 15TH 2024

Greyhound Sprint Qualifier

- 1st place Inspire Award
- Qualified for States!

JANUARY 18TH 2025

Polka Dot Scrimmage

- 5th Place Overall
- Last V1 Robot Competition

FEBRUARY 22ND 2025

Southwestern Pennsylvania Qualifier

- Finalist Alliance Captain
- 1st Place Think Award

FEBRUARY 23RD 2025

Panther Power Qualifier

- 6th Place Overall
- 1st Place Design Award

MARCH 9TH 2025

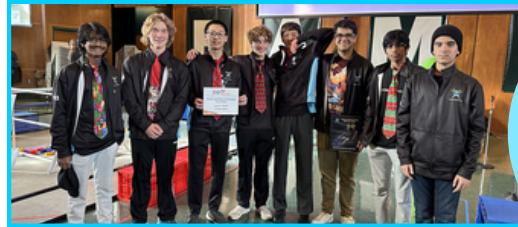
Pennsylvania States Championship

- 3rd Place Inspire Award
- Qualified for Worlds!

APRIL 15TH - APRIL 19TH 2025

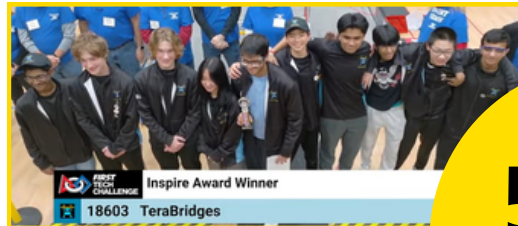
FTC Worlds Championship

- 1st Place Connect Award in Edison
- 8th Place Overall in Division



3,000+

OUTREACH
HOURS BY TEAM
MEMBERS



57th

IN THE WORLD OF
8,800 TEAMS



17

INDUSTRY
PROFESSIONALS
MET WITH



Top 2%

AUTONOMOUS
PROGRAMMING
IN THE WORLD



10,000+

PEOPLE IMPACTED
WITH OUR
OUTREACH



TeraBridges & Assistive Technology

This season, our team set out to find an outreach opportunity that would be both **meaningful** to our students and **beneficial** to our community. We wanted to put our skills in robotics and STEM to good use, while also giving back.

The inspiration came when a young neighbor of two of our TeraBridges members, who is quadriplegic, posted a video online showing how he uses an assistive technology device called a QuadStick to play his Nintendo Switch. This **sparked an idea for our robotics team to explore different assistive technologies** and learn how we could support people in our local community with disabilities, helping them thrive and live life to the fullest.



Originating from the University of Delaware, Go Baby Go! is an international program that provides adapted ride-on cars to young children with disabilities.

- We worked with Chatham University's GoBabyGo program to **build 2 ride-on cars** that are retrofitted for children with disabilities.
- The customizations include a safety harness, rewiring the drive pedal to be a more accessible button, and adding padding to the headrest.



Blue Car
Built for Emily!



Purple Car
Built for Sam!

Each car costs over \$500 that our team has to fundraise for, before we could build it and donate it to a child in need.

If you are interested in helping our team by donating towards a car, you can select that on the last page of this document.

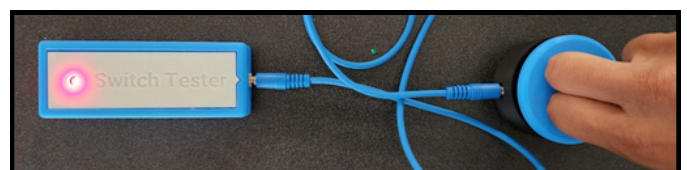


Our TeraBridges team is passionate about gaming, so we were thrilled to learn about The AbleGamers Charity. We were fortunate to have a virtual meeting with Zach Runyan to learn how to get involved.

We expressed interest in getting involved, and they suggested we explore "Makers Making Change." This initiative allows us to use our skills in CAD, 3D printing, and robotics to create switches and other devices to support the needs of the disabled community in our area.



Assistive technology helps people with disabilities live, work, and play with more independence. However, for many, commercial solutions are too costly. DIY assistive technology — community created devices made by volunteer makers — can help bridge the gap.



Our team has selected a number of different switches and adaptive items that we built and donated.

WHAT IS FIRST?



FIRST (For Inspiration and Recognition of Science and Technology) is an international nonprofit organization founded by inventor Dean Kamen. Its mission is to inspire young people to become leaders and innovators in science, technology, engineering, and math (STEM) through hands-on, mentor-guided robotics programs. FIRST offers a progression of programs for students of all ages, including FIRST LEGO League Discover, Explore, and Challenge, FIRST Tech Challenge (FTC), and FIRST Robotics Competition (FRC).

The FIRST Tech Challenge is designed for middle and high school students and is often described as “the ultimate Sport for the Mind.” In FTC, student teams design, build, and program robots to compete in a head-to-head game challenge. Each season, teams work under a strict set of rules, limited resources, and tight timelines to not only create a competitive robot but also raise funds, develop team branding, and foster outreach efforts in their communities. The experience emphasizes innovation, teamwork, and real-world problem solving—preparing students for careers in STEM and beyond.

As FIRST participants often say, it’s “the hardest fun you’ll ever have.”

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RICH BEITLER- COACH

At the start of the 2024–2025 season, our student leaders asked a simple but powerful question: **“How far can we go this year?”**

The answer: farther than we’ve ever gone before. For the first time in team history, TeraBridges qualified for the **FIRST World Championship**.

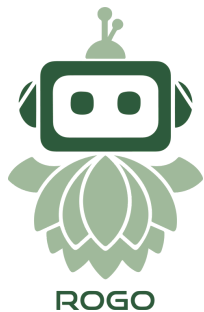
This accomplishment reflects thousands of hours of focused learning, iteration, and teamwork. Our students led the charge, and we, as coaches and mentors, matched their energy and commitment every step of the way.

As we look toward the 2025–2026 season, we aim to build on this momentum—transferring knowledge to our younger teammates, expanding our technical skills, and continuing to raise the bar. But we can’t do it alone.

★ **Community support is vital.** Donations from businesses and individuals enable us to create more design iterations earlier in the season, allowing us to fail fast and refine our designs more effectively. Just as important are the opportunities to tour local companies, speak with professionals, and see real-world STEM in action. Every open door and shared insight brings our students one step closer to becoming the next generation of innovators.

Thank you for believing in TeraBridges. The journey is just beginning—and with your support, there’s no limit to how far we can go.

Thank You to our 2024-25 Donors!



The Schafer Family

The McNeer Family

TeraBridges Partnering With Our Community

Donor benefits:

- Strengthens company reputation in the community
- Builds a technologically literate work force
- Creates a pipeline for interns and future employees

How your donation benefits the community:

- Inspiring young people to pursue STEM careers
- Increase awareness of robotics programs in Western Pennsylvania starting at age 6!
- Robot Demonstrations at schools, science center events, community events, conferences, etc...
- *Build cool robots*

How we give back to our Donors:

- Demo our robot at company celebrations and picnics
- Represent sponsors and FIRST at local tradeshow
- Partner with sponsors in their community service efforts.
- Promote sponsors on robot, websites, promotional materials and social media.

TERABRIDGES

FIRST Team 18603 | Pittsburgh, PA



Donate to TeraBridges 18603 Robotics Team

All mailed donations should be addressed to:

Upper St Clair Robotics Boosters
Att: TeraBridges 18603 Team
P.O. Box 12524
Upper St. Clair PA 15241

Please make checks payable to

"Upper St Clair Robotics Boosters"

Please write: **TeraBridges 18603** in subject

Name: _____

Company/
Organization: _____

Address: _____

Phone: _____

Email: _____

Amount: \$ _____

Additional Donor Options:

- ☐ Allow us to contact you for an additional donation if we make it to the FIRST WORLD Championship in 2026 (for travel)!

Donation of marketable goods and services are welcome. Please contact us at terabridges@uscrobotics.org to discuss any questions you may have regarding these or any aspects of donations.

Donations online can be made through the TeraBridges website or the USC Robotics Boosters donations page:

www.ftc18603.org/donate



Incline Impact Donor

\$250 - \$1

- Company name on our website
- Your donation goes directly toward building an adaptive car for a local child



Hot Metal Helper

\$500 - \$251

- Company logo or name on our website (with link)
- Company logo on team jerseys*



Smithfield Street Supporter

\$1,000 - \$501

- Large company logo & top placement on our website (with link)
- Company logo on team jerseys*
- Logo on our pit banner (visible at all events)



Roberto Clemente Champion

\$2,500 - \$1,001

- Large company logo & top placement on our website (with link)
- Large company logo & top placement on team jerseys*
- Logo on our pit banner
- Social media recognition (shoutouts and tags during the season)



Bridges Legacy Circle

\$5,000 (& up) - \$2,501

- Large company logo & top placement on our website (with link)
- Large company logo & top placement on team jerseys*
- Logo on our pit banner
- Social media recognition (posts and tags throughout the season)
- Signed team photo and award at season's end (a keepsake for your office)

***To be included on team jerseys, donations must be received by September 15th.**

