

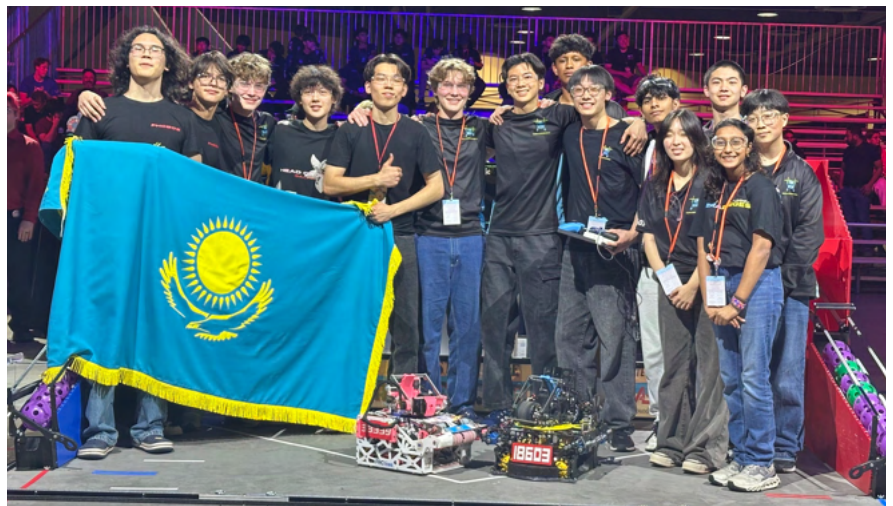
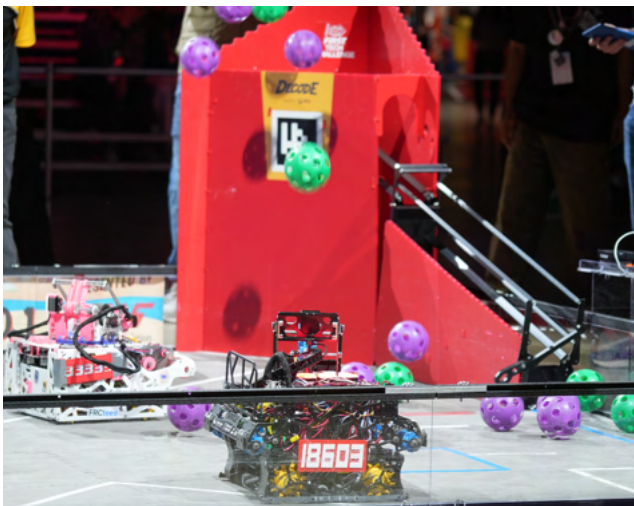
TERABRIDGES

FIRST Team 18603 | Pittsburgh, PA



TeraBridges Year in Review 2025-2026

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



2026 Western Edge International Premier Event **WINNING ALLIANCE CHAMPIONS**

We won the entire event along with our alliance partner from Kazakhstan!

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, 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 while 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 inspire future innovators and expand access to STEM in the community. A major focus of TeraBridges' outreach is **assistive technology**. Students use the skills they develop through robotics to create meaningful solutions for the disabled community, including projects such as switch-adapted toys, modified ride-on cars, adaptive devices, and other custom 3D-printed tools that help make play, mobility, and daily activities more accessible.

TeraBridges is more than just a robotics team. It is a collaborative environment where students grow as problem-solvers, leaders, and changemakers, using STEM not only to compete, but to make a positive impact in the lives of others.



Robot Game Winning Alliance - International Western Edge Premier Event, Long Beach CA

Message from our Student Team Captain:

This year has been one of the most memorable and successful seasons in TeraBridges' history. After months of hard work, long meetings, problem-solving, rebuilding, testing, and improving, our team had the opportunity to **compete at the FIRST Tech Challenge Western Edge Premier Event in Long Beach, California**. Western Edge brought together 88 teams from around the world, and TeraBridges was honored to represent Upper St. Clair and Western Pennsylvania on that international stage.

What made the experience even more incredible was that TeraBridges went on to **win the entire event as part of the Winning Alliance**, bringing home our team's first orange banner. That moment was unforgettable. Western Edge was about more than matches and awards, it gave us the chance to meet and connect with teams from around the world. We shared ideas, learned from each other, cheered each other on, and built friendships we never would have had without FIRST.

This season, we also continued to grow one of the most meaningful parts of our team: our **focus on assistive technology**. **We believe the skills we learn through robotics should be used to help others**. Throughout the year, our team worked on projects like **switch-adapted toys, modified ride-on cars, adaptive devices, custom 3D-printed tools, and 3D-printed toddler mobility trainer wheelchairs** that we print and donate to families in our area. These projects help make play, mobility, and everyday activities more accessible for members of the disabled community and remind us that engineering is not just about competition, it is also about making a real difference.

Another important part of our season was **advocacy**. Our team met with government officials to talk about the impact of FIRST Robotics and the need to **grow FIRST programs in Western Pennsylvania**. We shared how FIRST gives students hands-on STEM experience, leadership opportunities, confidence, teamwork skills, and connections to mentors, industry professionals, and other students around the world. We are grateful for the opportunities FIRST has given us, and we hope more students in our region will be able to experience the same thing.

Over the past year, we have spent thousands of hours designing, building, programming, testing, and improving our robot. But along the way, we also became a **stronger team**. We learned how to work through challenges, support each other, lead, teach, and keep going when things did not work the first time. The success we had this season was because of the effort and collaboration of everyone on the team, along with the support of our coaches, mentors, families, sponsors, and community.

I am incredibly proud of this team and everything we accomplished this season. **Winning Western Edge, bringing home our first orange banner, growing our assistive technology outreach, and advocating for FIRST in Western Pennsylvania made this a year we will never forget. I cannot wait to see what TeraBridges does next.**

Josh Beitler - Captain

2025-2026 Year In Review

DECEMBER 6TH 2025

Lancaster Area Qualifier

- 1st place Inspire Award
- 3rd place alliance
- Qualified for States!

DECEMBER 13TH 2025

Red and Green Scrimmage

- 1st place overall
- Second year winning this event

JANUARY 11TH 2026

Raiders Qualifier

- Finalist Alliance Captain
- 2nd place Inspire Award

FEBRUARY 22ND 2026

Panther Power Qualifier

- 3rd place alliance
- 2nd place Inspire Award

MARCH 14TH 2026

Pennsylvania States Championship

- 1st place Control Award
- Qualified for Western Edge!

MAY 28TH - MAY 31ST 2026

International Western Edge Premier Event

- Winning Alliance Champions of the event!
- Winning Alliance of the Sea Division
- 1st place Connect Award



3,000+

OUTREACH
HOURS BY TEAM
MEMBERS



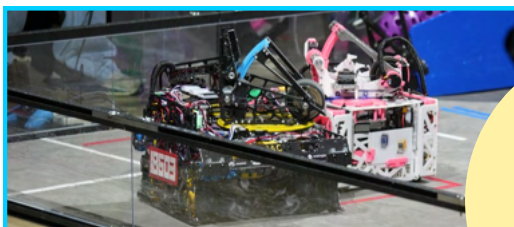
Top 1.5%

IN THE WORLD OF
8,800 TEAMS



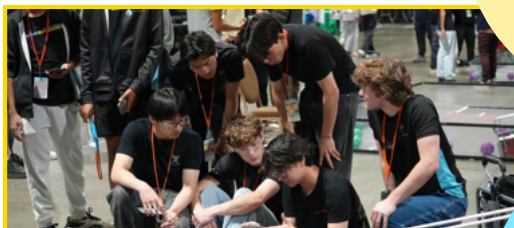
17

INDUSTRY
PROFESSIONALS
MET WITH



106th

OF ALL ROBOT
AVERAGE SCORES



10,000+

PEOPLE IMPACTED
WITH OUR
OUTREACH



TeraBridges & Assistive Technology

Last season, our team began exploring assistive technology as a way to use the **skills we were learning through robotics to make a meaningful impact beyond competition**. What started as one idea quickly grew into one of the most important parts of TeraBridges.

These projects have helped our students see STEM in a new way. **Robotics is not only about building a successful competition robot; it is also about learning how to identify real needs, create thoughtful solutions, and use technology to improve people's lives**. Our assistive technology work has become a **core part of who we are as a team and continues to inspire us to use our skills to serve others**.

3D Printed

Toddler Mobility Trainer (TMT)



Our team also 3D prints, builds, and donates **toddler mobility trainers to families in our area**. These small, low-cost mobility trainers give young children the opportunity to practice using a wheelchair before their families are ready to purchase one

through insurance. Because many insurance companies only cover a new wheelchair every five years, families often wait until their child is closer to starting school, around age five or six, before purchasing their first wheelchair.

A toddler mobility trainer allows children to explore mobility much earlier, helping them gain confidence, independence, and experience with a mobility aid at a younger age.

We **donate each toddler mobility trainer free of charge to local families**, but each one costs our team more than **\$150 to print and build**. Community support helps us purchase filament and cover the materials needed to continue this project.

This year, we also **used our robotics skills to design an adaptation to motorize a toddler mobility trainer**. After testing and iterating on the design, we worked with Child's Way and a family there to create a motorized TMT for a young boy named Elias.



GoBabyGo!

Go Baby Go! is an international program that provides adapted ride-on cars to young children with disabilities.

- We **built and donated 3 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.



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.

Blue Car we Built for Hudson!

Switch Adapted Toys & Hosting Community Build Days



We hosted 2 community events to build custom assistive toys for children with disabilities. We taught the community how to build the toys.

- We used the event to donate over 50 custom-built toys to Child's Way in Pittsburgh, PA.
- We also donated 6 toys to a CP center in India.

Adaptive Sports Attachments

Jackson, a 4th grader paralyzed from the neck down, plays adaptive soccer with his wheelchair.

- Created a custom adaptive attachment in CAD for his wheelchair

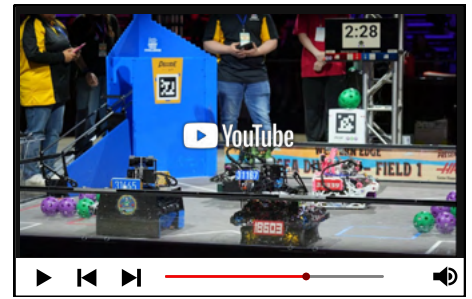


WHAT IS FIRST?



FIRST, which stands for For Inspiration and Recognition of Science and Technology, is an international nonprofit organization founded by inventor Dean Kamen to inspire young people through hands-on STEM learning. Through programs for students of all ages, including FIRST LEGO League, FIRST Tech Challenge, and FIRST Robotics Competition, students gain real-world experience in engineering, programming, teamwork, leadership, and problem-solving.

TeraBridges competes in FIRST Tech Challenge, a robotics program for middle and high school students often described as “the ultimate Sport for the Mind.” Each season, FTC teams design, build, and program robots to compete in a new game challenge while also learning to manage budgets, raise funds, build community partnerships, and share STEM through outreach. It is challenging, exciting, and, as FIRST participants often say, “the hardest fun you’ll ever have.”



Watch a student narrated 2.5min match video to learn about FTC!



ADVOCATING WITH LOCAL GOVERNMENT OFFICIALS



Representative Mihalek



Senator Robinson



Representative Venkat



Representative Anderson

This season, TeraBridges expanded our outreach beyond our team and community by **advocating for the growth of FIRST Robotics in Western Pennsylvania**. While FIRST programs continue to grow across the country, Western Pennsylvania still has significantly fewer FIRST Tech Challenge teams than many other regions.

To help address this, our team organized and presented a proposal to local government officials, including **Representative Natalie Mihalek, Representative Arvind Venkat, Senator Devlin Robinson, and Representative Marc Anderson**. We also scripted and filmed multiple advocacy videos to share our message and explain our team’s proposed solution: a Pittsburgh-area FIRST Robotics grant program, modeled after programs already active in Eastern Pennsylvania. Our goal is to help create more opportunities for students in our region to experience the life-changing impact of FIRST.

We have heard there may be some exciting opportunities coming for Western Pennsylvania FIRST teams this fall through these advocacy efforts and we cannot wait to see what comes next.

Thank You to our 2025-26 Donors!



Liu Family



Bala/Gupta Family



McNeer/Sedat 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 tradeshows
- Partner with sponsors in their community service efforts.
- Promote sponsors on robot, websites, promotional materials and social media.



Rich Beitler Head Coach

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.

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 2027 (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
- Help us build and donate an adaptive car or 3d printed wheelchair (TMT) 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.**

