

We achieve. We accomplish. We develop. We create.
We are Texas Torque

At the end of an era as the Northside Roboteers - an era filled with learning curves and the development of an identity all our own - FRC Team 1477 made the monumental decision to reinvent ourselves. The then-members of the Northside Roboteers envisioned a future as not only a robotics team, but also an investment enterprise. However, we did not wish to invest in stocks and bonds - rather, we wanted to encourage the ingenuity of the new generation, and our products would vary from robots and community improvements to the engineers and leaders of tomorrow. Starting in the 2010 season, we changed our logo, our name, and our identity to **Team 1477, Texas Torque**.

While names and logos are easy to revise, transforming our core aims was a heftier task. From the beginning, Texas Torque chose to exemplify the values of gracious professionalism and tireless service to the FRC community. We still strive to conduct all of our team collaborations in a businesslike manner, emphasizing the quality and uniformity of our design standards, collective goals, and coordinated attire. This diligence extends to the competitive scene, where our dress shirts bear embroidered name-tags that encourage others to approach us, knowing that we will always offer help without hesitation. Through both scoring errors and alliance propositions Texas Torque's constant courtesy reflects our indelible team values of diplomacy, integrity, and unity.

Texas Torque World Headquarters is the epicenter from which we promote the values of STEM and ensure the continual growth of our team. It is the base of operations from which we have transitioned from a limited club to an impressive organization with over 75 registered members. Due to our open membership policy, joining the team is extremely simple and attracts an expanse of individuals, including our first-ever international student from France. In addition to this added global diversity, we have seen dramatic growth in the number of young women on the team, with a 340% increase over the last year alone. The 17 young women who have joined us this year work in every field, from mechanical to business to scouting, greatly contributing to the perspective and progress of the team. In a further testament to Texas Torque's lasting influence, around 60% of our active mentors are alumni. These graduates return because Texas Torque represents something indelible to them: it is a place that has helped them to grow into who they are today. The team, an enterprise, invested in their future, and now they are making a return on that investment.

In Texas Torque, teamwork comes FIRST. From Hawaii to Canada to right here in our home state, Texas Torque extends a friendly hand to all teams regardless of alliance during competition. FIRST, like STEM fields, looks in every direction, an ideal which we strive to emulate by proudly participating in an east-west robotics alliance with teams 1323 and 2415. Recently, we have also formed an enduring partnership with the internationally distinguished teams of teams 610 and 1241. Our widening global reach directly reflects our increasing efforts to make a greater impact in the FRC world.

At the same time, we cannot forget those teams with whom we collaborate in our own region. We maintain a strong partnership with Team 1429, whose Haas Mills set the framework for our robots' construction even as our prototypes augment their designs. On and off the field, our camaraderie with teams 118, 148, 624, and 3847 exemplifies the vision of FIRST. From our inaugural season as an eager rookie team to our most recent season mentoring Teams 3335 and 4589, we have expanded our networks across the nation in commanding fashion. However, we do not restrict our help to local teams; for example by guiding teams such as 1538, 3593, and 2491 with implementing lights, we strengthen the bonds of this community and, through those bonds, forge new and lasting friendships.

Additionally, Texas Torque participates in Texas Mentors, a growing group of Texas teams whose mentors lend their time and assistance to others in the FRC community. At the Houston Robot Remix (HRR), the annual off-season event we host, Texas Torque holds informative tutorials to aid fledgling teams in our area. From panel discussions at off-season events to our open invitation to visit our lab, we offer everyone a share in our experience. We offer our robot to those who have never taken the controls. We offer electronics help by creating an Instructable which, within one weekend, achieved thousands of views. Most importantly, we give our time to better FRC, and we intend to continue extending our influence to as many teams as we can.

By mentoring FLL teams, Texas Torque ensures the longevity of the local FIRST community. Our FIRST Lego League Program has exploded in popularity since the 2013 season, adding 10 new teams this season to bring our regional total to 13 FLL teams operating in 9 schools. In the past, Texas Torque even held its own FLL Qualifier, but it has since become more beneficial to the community for us to support other local qualifiers. Texas Torque students and mentors travel to our FLL teams to instruct them in robot design and construction; this season, four of our sponsored teams advanced to qualifiers. This not only increases the number of students exposed to FIRST, but also generates interest in our team, thereby securing a sustainable future for Texas Torque.

We have also worked closely with the government and the media to promote FIRST Robotics. In November 2013, 25 million viewers turned on their televisions and watched as Texas Torque's robot cut the ceremonial ribbon at the Macy's Thanksgiving Day Parade. In the 2013 season, we appeared on our local FOX News channel and on the national *FOX & Friends* talk show; additionally, we received recognition from our district science department and from a previous Texas Senator for our achievements. Numerous articles in local magazines, the *Houston Chronicle*, and international publications reflect some of our continued efforts to Make It Loud. We also Make it Loud in the quietest of places: our local libraries, where we are currently working to establish programs across the Houston area for FRC teams to conduct demonstrations and introduce children to FIRST LEGO League. We have been integral to the creation and proposal of Texas House and Senate Resolutions. Both proposals create a Texas Robotics Day that will receive coverage when Congress reconvenes.

Remarkably, these events are just a small part of Texas Torque's community outreach. Alongside the Houston Astros, Texas Torque set up FIRST Pitch, a day at the ballpark where baseball fans can view the robots of many Houston-area teams. International corporations such as Halliburton and Rockwell Automation have invited us to demo at their expositions. We have even reached across the Atlantic Ocean to Tinius Olsen, a Norwegian school, hoping to establish that country's inaugural FRC team. Through unique opportunities like these, Texas Torque leaves a lasting impact in a multitude of nations with and without FIRST programs.

Locally, we represent FIRST at STEM Exploration Days, Fourth of July parades, birthday parties, and the Children's Museum. Over the duration of one summer program, Texas Torque introduced at least 1,200 students in The Woodlands, our hometown, to FIRST. Students from all over the area come to work with LEGO Robotics kits, learning the fundamentals of FIRST and of scientific thought. Meanwhile, HRR sparks widespread involvement in FRC by offering free admission to the public. To advertise this event, Texas Torque produced and distributed a commercial showcasing the excitement of FIRST Robotics to all teams participating in the Remix in hope that they would spread it throughout their own communities. These events craft a local push to promote participation in FIRST and to champion the values of STEM fields.

For us, there is no greater privilege than to serve the community, and through FIRST, we play a vital and altruistic role. Several organizations, such as our local Angel Reach charity, come to us with technological issues that our mentor corrects, free of charge. Besides this, he also donates printers and secures additional computers for Angel Reach. At the Robot Remix, the team also supported Angel Reach by collecting donations of bedding. We support the Montgomery County Women's Shelter through financial donations. We readily design local improvements, such as a better document camera mount and a drink holder for a wheelchair user. We have actively repaid the community that furnishes us with a home, and we will continue to offer our assistance to all who need us.

FIRST has become a central influence in our schools. Our main mentor, Mr. Scott Rippetoe, has been named the official robotics coach of the district and has added a robotics course to the curriculum of The Woodlands College Park High School, the home campus of Texas Torque. Out of our passion grew a movement across many elementary and intermediate schools to organize FIRST LEGO League teams. Over the last few years, our local high schools have also held many pep rallies for FIRST, which thousands of students have attended. Although pep rallies are usually held for conventional athletics, our schools' distinct interest in robotics reflects the growing respect for FIRST in the area. Our Rebound Rumble Robot stood on the faculty bench for our annual student-staff basketball game, ready and waiting for the call to step on the court as a fully recognized sports player. Like our robot, we continually change how society views robotics and how robotics teams give back to that society. We have developed a new and better identity for ourselves, distinct in our district, in our

community, and to our fellow Roboteers.

This is our effect. This is our legacy. This is Texas Torque.