FIRST Impact Award - Team 2383

2025 - Team 2383

Team Number

2383

Team Nickname

Ninjineers

Team Location

Fort Lauderdale, FL - USA

Describe the impact of the *FIRST* program on team participants within the last 3 years. Think about percentages of those graduating high school, attending college, in STEM careers, leadership skills, and serving as mentors/sponsors in *FIRST* programs.

2383 has averaged 100 team participants per year for the last 3 years, with an average of 15 of those members graduating yearly. 100% of those alumni have been accepted to four-year universities with 97% pursuing STEM related degrees. Our team alumni stayed very involved with 2383 including 40 alumni who came back for kickoff and participated in 4th ranked RI3D for the 2025 season as awarded by FIRST Update News (FUN). Now, former Ninjas actively mentor teams: 125, 7660, 4118, and 8324.

Describe your community along with its unique opportunities and circumstances. Think about your geographic region, diversity of town/school, language barriers, socioeconomic barriers, and cultural expectations.

The Ninjineers are larger than just a team, we are a family embracing the diverse culture of South Florida. Based in Broward County, we are one of the few FIRST Recognized Schools. 16% of our team is composed of international students and 42% can speak multiple languages including Spanish, Portuguese, Italian, German, Turkish, Korean, Chinese, Hebrew, Tamil, and Telugu. Thanks to our school being K-12, we established the FLL 17589 Teenage Mutant Ninjaneers plus FTC 16391 The Rising Ninjas.

Describe the team's methods, with emphasis on the past 3 years, for spreading the *FIRST* Mission in ways that are effective, scalable, sustainable, and creative.

Through our program: Bring Your Rep 2 FIRST, we have invited 5 Florida House Representatives and Senators on a tour of our lab relaying the importance of FIRST. We have also hosted advocacy workshops virtually and at regionals to promote the program's continuation. Supporting the FIRST State Operations Committee (SOC) on our Tallahassee STEM Day visit, we expanded STEM funding by $1.2 million for 1,034 FLL, FTC, and FRC public school programs reaching 12,270 students with bill LFIR 1752.

Describe your team's goals and the progress you have made towards them to fulfill *FIRST's* Vision.

Our guiding principle at 2383 is to inspire a world where technology fosters coopertition, opportunity, and inclusion while uniting our community through STEM. Our Ninjineers have started an FLL camp in Sheonan, South Korea, taught Lego robotics in China, and shared our story in the United Kingdom, Argentina, Mexico, and Germany. Finally, members have pitched the fundamental concept of international STEM funding and regulations, introducing FIRST to UN ambassadors at the New York headquarters.

What impact has your team seen from your efforts described in the above question? How does your team measure impact?

The Ninjineer network has been growing with each generation of students cultivating lasting relationships within the FIRST community. Current members volunteered over 4,250 hoursand prioritized the inclusivity of international teams at competition. Thanks to this, teams that visit our local South Florida regional like 8581 PizzaByte robotics from Panama and 7403 Lightning Blue Lizards from Colombia have become close partners, as we have transported PizzaByte's robot to a regional in our trailer.

Please provide specific examples of how your team and team members act as role models within the *FIRST* community with emphasis on the past 3 years. How do you share these best practices with other teams?

Here at 2383, we operate like a business. Our leadership system consists of 10 upperclassmen student directors who are split into our 4 departments: Mechanical, Electrical, Public Relations, and Team Management. These directors oversee everything and mentor underclassmen officers in each respective department. We are proud to be 100% student-led. We frequently host unique CAD, Java, scouting, and video editing workshops for new members and other teams like Stealth Panthers 6424 in Missouri.

Describe your team's initiatives to Assist, Mentor, and/or Start other *FIRST* teams with emphasis on activities within the past 3 years.

NinjAssist is a program that offers live assistance at competition for other teams which builds unforgettable relationships while transcending language barriers. We purposefully overpack our pit to lend spare parts and send members to uplift teams coding or mechanical features. Our collected data shows we have helped 450 teams across multiple regionals in the last 3 years. As a result of our help, we have won the Gracious Professionalism award 6 times (50% success rate) in the last three years.

What other initiatives have you created, grown, sustained, or participated in (*FIRST* or otherwise) to help inspire young people to be science and technology leaders and innovators? What outcomes have you seen from your efforts in the past 3 years?

One of our team goals is to provide equal opportunity to all. To uplift our community, we partner with the Lighthouse of Broward and teach visually impaired students to code using tactic sensory devices for Lego Mindstorm robots. Additionally, through our program, Building Blocks, we provide STEM education to neurodivergent children. Both initiatives yielded a 17% increase in program attendance from year to year inspiring a few students to pursue careers in sound and robotic engineering.

Describe the partnerships and relationships that you've created with other organizations (teams, sponsors, educational institutions, government, philanthropic entities, etc.) and what you have accomplished together, with emphasis on the past 3 years.

Over time the Ninjineers family has expanded beyond just students. Sponsors like APTIV and Certified Metal Finishing (CMF) have led technical engineering workshops for our students and anodized our robot. We visit Florida government officials yearly for National STEM Day to continue FIRST advocacy initiatives. Our friendship with teams 6424 Stealth Panthers, 108 SigmaCats, 7500 Marauders, and many others have resulted in these students machining parts on our CNC or working for our Summer Camp.

Describe your team's efforts in the past 3 years to promote equity, diversity, and inclusion within your team, *FIRST*, and your communities.

Over the past three years, we have actively fostered a diverse and inclusive environment within our team, FIRST, and our community. Our GEMS club (Girls in Engineering, Mathematics, and Science) empowers women to pursue robotics through workshops resulting in a 41% increase in team membership since last year. Additionally, DEI training hosted by our school's Black, Hispanic, Indian, and Asian student unions ensures our director and officer board is well-educated and prepared to lead inclusively.

Explain how you ensure your team and the initiatives you have created will be sustainable.

With our annual summer camps, we invite kids from across the world to explore robotics through unique FLL and FTC type games crafted by our mentors. The students build robot attachments and compete in a mini-competition at the end of each session. About 73% of camp attendees who go to our school join the team. We also have Pre-Engineering and Computer Science 4 year tracks teaching 3D modeling on OnShape, CNC tool pathing, wiring, and coding inspiring students to matriculate into robotics.

Highlight one area in which your team needs to improve and describe the steps actively being taken to make those improvements.

The lack of documentation hindered our representation from both a community and competitive standpoint. This year, we have strived to make our resources more available for other teams through our new dedication to daily build updates via an Open Alliance ChiefDelphi thread. Establishing a more active online presence to document our progress has led to reaching over 101.3k accounts on Youtube and ChiefDelphi combined, allowing us to help others through actively responding to build questions.

Briefly describe other matters of interest to the *FIRST* Judges, including items that may not fit into the above topics. The judges are interested in learning about aspects of your team that may be unique, particularly noteworthy, or had a large impact.

Prioritizing community safety and inclusion has been of utmost importance to us. When disaster struck during Hurricane Milton, the team began a mass relief drive to provide the displaced with emergency supplies around Florida. We also recently visited Joe DiMaggio Children's Hospital, where we drove around our FRC robot to the rooms of terminally ill patients, brightening their day. Using the Teammates for Kids Child Life Zone, patients learnt basic coding skills and could drive our FTC robot.

Judge Feedback

Which outreach activity do you feel we execute most effectively?

An area the team has an opportunity to improve.

Something that really impressed the judges.

Essay

We Are The Ninjineers, Team 2383

Team 2383, the Ninjineers, has grown from humble beginnings in a bus garage into a beacon of STEM education and advocacy. Based at American Heritage School in Plantation, Florida, we are a diverse and passionate team of 100 students and two mentors. Over the past 17 years, we have built a legacy rooted in the FIRST values of innovation, inclusion, and community. Our mantra, "Ta Ta Kai," meaning "fight on," embodies our determination to overcome challenges, inspire others, and foster resilience within our team and beyond. Our home in South Florida, known for its rich cultural diversity, profoundly shapes our identity. In Broward County, where nearly 32% of residents are Hispanic/Latino and 30% are Black or African American, we embrace the multicultural fabric of our community. This vibrant diversity is reflected in our team composition - 16% of our team members are international students, and 42% are multilingual, speaking languages like Spanish, Portuguese, Tamil, and Korean. With over 40% of South Florida residents being foreign-born and nearly 25% of Broward County residents speaking a language other than English at home, our team's cultural richness enables us to connect with global communities and break language barriers, especially at international competitions. As one of the few FIRST Recognized Schools, we leverage our unique K-12 environment to create a comprehensive STEM pipeline. We proudly mentor FLL Team 17589, the Teenage Mutant Ninjaneers, and FTC Team 16391, the Rising Ninjas, nurturing a passion for robotics from

elementary through high school. Our commitment to outreach extends far beyond Florida. Globally, we've conducted robotics workshops in six different continents, sharing the joy of STEM with students from diverse backgrounds. One of our proudest achievements was presenting to UN ambassadors in New York, where we demonstrated how STEM transcends borders and equips young people with essential skills to address global challenges. Locally, we host an annual FLL scrimmage, providing up to 10 teams the opportunity to prepare for their upcoming seasons while presenting information about other levels of FIRST robotics. This event has historically raised up to $3,000 in funding through concessions and raffle sales. Additionally, our flagship outreach event, STEAM for All, has provided hands-on STEM experiences to over 1,200 students from underfunded schools in just two years. Advocacy is a cornerstone of our mission, and the crown jewel of our initiatives is Bring Your Rep 2 FIRST. This program was created to increase awareness of FIRST robotics and address a critical challenge many teams face—limited access to resources. Public school systems often leave their robotics teams underfunded, failing to recognize the immense benefits of competing in FIRST. To help change this, we launched Bring Your Rep 2 FIRST three years ago, inviting Florida legislators to tour our lab and witness firsthand the transformative impact of FIRST programs on students. So far, we have presented to Representative Jenne, Senator Pizzo, Representative Woodson, Representative Robinson, and Senator Osgood with plans to engage more legislators. Partnering with the FIRST State Operations Committee, our advocacy efforts helped secure $1.2 million in state funding through bill LFIR 1752, supporting 1,034 teams and impacting over 12,270 students across Florida. But we didn't stop there. To maximize the program's impact, we expanded our efforts beyond our own team, presenting at the South Florida and Orlando regionals and hosting online seminars to teach over 100 teams how to invite their representatives and advocate for funding. Our commitment to sustainable STEM funding extends beyond Florida—we've partnered with teams nationwide to advocate for increased support, proving that a united voice can drive legislative action. With regional coordinators now pushing for Bring Your Rep 2 FIRST to become a national movement, we are proud to see this initiative growing far beyond us, leaving a lasting impact on the FIRST community. At the core of our outreach is Building Blocks, a program that empowers children with disabilities by introducing them to the world of STEM. We visit special needs centers and implement a specially designed LEGO-based curriculum, developing weekly lessons to help children develop their problem-solving skills and think outside the box. Our efforts have culminated in an annual cornerstone event partnering with organizations like the Lighthouse of Broward, a non-profit that provides leadership, services, advocacy, and resources to enhance the lives of blind or visually impaired individuals. Working with the students, we teach them how to build and code LEGO Mindstorm EV-3s to complete modified FLL challenges in a friendly scrimmage. To facilitate this event, we collaborated extensively with instructors to develop accessible building stations, coding methods based on sensory indicators and verbal cues, and adapted ice-breakers. Over the past three years, Building Blocks has reached more than 400 children, with one of our most impactful expansions occurring in 2025 at Joe DiMaggio Children's Hospital. There, we developed specialized robotics workshops for young patients facing serious medical challenges, working closely with child life specialists to ensure our activities accommodated various physical limitations and medical equipment. During this session, 75 young learners discovered the joy of robotics through adaptive building challenges and modified coding activities. For many of these children, our workshops provided a welcome distraction from their medical routines, allowing them to immerse themselves in creative problem-solving and experience the excitement of controlling their own robots. The hospital staff reported that these STEM activities not only engaged the patients intellectually but also boosted their spirits and fostered a sense of accomplishment during their hospital stays. Inclusion is central to our team culture. Our GEMS initiative, which focuses on encouraging young women to pursue STEM, has led to a 41% increase in female team membership in just one year. Additionally, we've prioritized equity training for our leadership team, collaborating with cultural organizations within our school to create an environment where diversity thrives. These efforts underscore our commitment to empowering underrepresented groups and fostering a sense of belonging. FIRST's principle of Coopertition drives our commitment to supporting other teams. Our way of embodying this core value at competitions is through our initiative known as NinjAssist, a system in which trained members of our team go around pits and check in with other teams to try and help them solve any issues they may be experiencing. From helping teams re-wrap their bumpers to repairing damaged motors to coding full subsystems, NinjAssist has been successful at not only building robots, but also building bonds with other teams around the world. Through this program, we support the competitive integrity of FRC and create a more fair and enjoyable experience for everyone involved. Our NinjAssist initiative has provided technical and strategic assistance to over 450 teams in the past three years,

including 30 rookie teams annually. This dedication has earned us six Gracious Professionalism Awards in just three seasons. A notable example of our impact occurred when we helped Team 7500, the Marauders, rebuild their robot at the Orlando Regional, enabling them to advance to playoffs. Internationally, we've built strong partnerships, such as transporting Panama's 8581 PizzaByte Robotics' robot to a regional and collaborating with Colombia's 7403 Lightning Blue Lizards. The influence of the Ninjineers extends beyond current team members. Over the past three years, 100% of our graduates have been accepted into four-year universities, with 97% pursuing STEM-related degrees. Many alumni remain deeply connected to FIRST, mentoring teams like 125, 7660, 4118, and 8324. In 2025, alumni involvement reached new heights as they contributed to the 4th-ranked RI3D program. By staying engaged, our alumni help ensure the sustainability and growth of our programs. Our dedication to sustainability is reflected in our innovative pre-engineering curriculum. Students are introduced to CAD, CNC machining, coding, and electrical systems, ensuring they are well-prepared to transition into robotics. Our summer camp serves as both our largest fundraiser and a significant inspirational effort. Across four two-week sessions, we guide hundreds of campers aged 4-14 through challenges resembling FLL and FTC games. Open to everyone, the camp provides an introduction to the world of robotics, developing essential skills through engaging activities led by current and alumni Ninjineers. Many alumni eagerly return each summer to teach the next generation of FIRST participants, and the camps have become a key part of our sustainability efforts while funding our team's activities. Looking to the future, we aspire to expand Bring Your Rep 2 FIRST to a national level, scale Building Blocks to reach more students, and organize an international robotics tournament. These ambitious goals reflect our unwavering commitment to breaking barriers, fostering inclusion, and driving innovation. Our recent accolades, including NASA's Engineering Inspiration Award and multiple Gracious Professionalism Awards, motivate us to continue pushing boundaries and inspiring others. The Ninjineers are more than a robotics team—we are a community united by our belief in the transformative power of STEM. Through relentless dedication, innovative outreach, and a steadfast commitment to inclusion, we are shaping a world where barriers are broken, and opportunities are created for all. Together, we are building a brighter future, one student, one robot, and one idea at a time. ;