FIRST Impact Award - Team 233

2025 - Team 233

Team Number

233

Team Nickname

The Pink Team

Team Location

Rockledge, 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.

In the past three years, students on The Pink Team have had opportunities to network, build engineering skills, and gain access to internships. Our graduation rate has been 100%, with 93% of Pink students attending college and 93% going into a STEM field after graduation. We also have had 6 students hold NASA or STEM internships while on the team. Participation in FIRST has helped students develop critical soft skills. In fact, 100% of our students agree that FIRST helped foster such skills.

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.

Our community, the Space Coast, is deeply rooted in America's space program. Our team has the opportunity to work at the Kennedy Space Center, which provides 15,000 jobs to the Space Coast. Pink also resides in the Brevard Public School District, where 40% of its students are non-white and 37.5% live at an economic disadvantage. With our eyes set on Mars, the need for STEAM education on the Space Coast is higher now more than ever to fulfill the growing space industry.

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.

As a NASA house team, we have the opportunity to participate in events at Kennedy Space Center, where we can spread the mission of FIRST to an international audience. At these events, we have hands-on activities such as remote-controlled robots that draw the attention of 7,000 people per event on average. To expand our outreach efforts, we ran a Scout Workshop, where we helped Scouts earn their Robotics Merit Badge. We also attended Orlando Maker Faire to introduce STEAM enthusiasts to FIRST.

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

To fulfill FIRST's Vision, our team's goal is to inspire the next generation of Space Coast professionals. We work on this goal through recruitment events at our feeder schools. This allows us to create a sustainable pipeline between students in the Space Coast to FIRST. These events include Registration Days, Science Step Up Days, and open houses. This also runs in parallel with our summer camps. We promote our summer camps at events to allow for more people to learn about them.

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

The school recruitment events have impacted our team through team and pipeline growth. We recruited 18 new students last offseason and have sustained our 3 feeder FTC teams. Not only have we seen the impact on team growth, but also in our summer camp development. We have had overwhelmingly positive feedback from both parents and students. These camps also have doubled in the past year going from 15 students to 30. Next season we plan to expand the program, adding 3 subsystem specific camps.

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?

We assisted FRC Team 386 Voltage's FLL event by helping set up, judging, and helping teams in the pits. We also have hosted a joint kickoff with Voltage for the past two years at the Space Station Processing Facility. Not to mention, we toured 3 FTC teams from South Africa last December. In the last two seasons, we have lent out 3 roboRIOs to teams 4118, 4622, and 8581. We share our best practice of reliability through example by answering the call to fulfill any need in the community.

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

We were able to help 3 rookie FRC teams in 2024 through our initiative, FIRST Assisting Rookies (FAR). FAR was created after mentoring FRC Team 9284 Eduwizards and assisting FRC team 9313 RoboHana. FAR has the goal of supporting rookie teams that need it. We also assisted FLL Team Technic 66492 in 3D printing their trophies. Additionally, we mentor our feeder FTC teams 6323, 8996, and 14538 with software training and design. In total, we have assisted 13 teams and mentored 7 teams.

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 initiative we started was P.I.T. Crew, where we teach classes about FIRST and bring them to the Orlando Regional to see FIRST in action. Furthermore, we created Pink Stewart, where we send out small scribble-bot kits around the world, primarily to places that don't have easy access to STEAM opportunities. Pink Stewart aims to inspire kids across the world to work in STEAM. These initiatives have been started in the past year and we hope to see outcomes in new FIRST team development.

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.

We have kept a good relationship with the Brevard Zoo, which allows us to attend their STEAM-related events and reach out to our local community about Pink and FIRST. We also have a unique relationship with NASA, our primary sponsor. We are able to attend events at Kennedy Space Center like KSC Visitor Complex Demos, NASA Fall-Fest, and NASA Family Day. At these events, we are able to reach an international audience to spread the FIRST mission to people that are interested in STEAM.

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

We work to promote EDI in STEAM on the Space Coast. We are a m.e. FIRST ambassador, which involves providing free pads and tampons at competitions to enable enjoyable events. We have attended events like Girls in Aviation and the WISE symposium to reach more women in our community to get them invested in STEAM. Additionally, we have run day camps for ESL students, foster students, and redesigned camps for students with disabilities to make STEAM more accessible to their individual needs.

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

The Pink Team has student mentorship and summer training programs to give new members insight on everything they need to know to be successful in FIRST. An example of this is the new 3d print team, which hosts a workshop every season, teaching students how to properly use 3d printers. This gives us opportunities to sell student-made 3d prints at fundraisers. We also attended 42 fundraisers in the last three years to sustain our team and initiatives.

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

One area we are improving is our training program. We realized that many of our new members join with no prior knowledge, so we put together training to prepare them for competition season. This training program is called Training Through Zilla, where rookies build a robot to compete in the offseason event Space Coast Showdown. Some of the training workshops included are CAD, controls, mechanical, and software. Through this program, we ensure our students are more prepared for the season.

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.

Our team has made tremendous progress on building our team structure. Due to the ongoing Artemis mission, a significant portion of our mentors at the Kennedy Space Center have to reduce their dedicated time to the team. To address the shortage of mentor availability, about a year ago, we implemented a student leadership program. Having students that can support the mentors and push the team forward takes stress off their shoulders while also allowing students to get experience in leadership.

Judge Feedback

Have we efficiently backed up our outreach/initiative efforts with enough statistics?

An area the team has an opportunity to improve.

Something that really impressed the judges.

Essay

Located in Rockledge, Florida, the Pink Team is uniquely positioned to promote involvement in STEAM and FIRST at both a local and global level. We aspire to spread FIRST all over the world, creating engaging and accessible opportunities. Our team demonstrates how working together and fighting for a common goal can bring immense positive change, and impact the lives of people all around the world. In the last three years, we have been able to reach over 150,000 people and we are motivated to keep growing our footprint. Our team is constantly working to spread STEAM to the world in our unique Pink way dedicating over 2,000 hours to this mission. We strive to demonstrate what it means to be a part of FIRST to the community and the world, showing how FIRST is for everyone!

Working within our community allows us to build and grow connections. Such as our longest-standing partnership with NASA. Over the last three years, we have attended 23 of their events, where we introduce our team and what FIRST is to a variety of audience members. From the higher-ups at NASA to tourists from around the globe, our message is there to inspire everyone.

Just because we spread STEAM globally doesn’t mean we neglect our local community. We collaborate with the Rockledge Police Department to maintain and update PDBot that the team created in 2010. PDbot aims to support local police in managing potentially life-threatening scenarios peacefully by being the communication link between

officers and affected civilians. From 2010-2023 we have maintained PDBot. We now aim to transform it into a more robust robot with new capabilities, such as climbing stairs and opening doors. PDBot plays an active role in supporting the local police in potentially life-threatening situations.

Another one of our community partnerships is with Brevard County Foster & Adoptive Parent Association where we host day camps for foster kids. We run STEAM activities for children who may not have the same opportunities to participate in STEAM programs as others do. We are building this partnership to be able to spread the opportunity of FIRST to an underserved group.

Another great partnership we have is with the Brevard Zoo. We started this partnership 2 years ago when we asked to demonstrate our robot at their holiday events. The Pink Team and the Brevard Zoo connected through a shared mission of educating diverse audiences. Throughout these years, we have attended 7 events run by the zoo including Science Sundays, Boo at the Zoo, and Noon Year's Eve. This relationship allows us a platform to illustrate the importance of engineering and technology in all areas of science.

In the spirit of FIRST, we use outreach to spread STEAM to large and diverse audiences. Our feathered friend, Pink Stewart, otherwise known as “Where in the World is Pink Stewart?” is an initiative we started during the offseason. Pink Stewart aims to teach kids in classrooms all over the world about FIRST and STEAM by sparking interest with scribble bots. A scribble bot is a self-drawing robot that moves around with a motor spinning a clothespin. In the kits there are parts to build scribble bots, coloring sheets of Pink Stewart for each student, a larger class Pink Stewart coloring sheet, and information about Pink, FIRST, and how to build the scribble bots. Similar to Flat Stanley, the students use their scribble bots to color a picture of our flamingo, Pink Stewart, and share the picture with our team to track his travels. We have sent Pink Stewart to Anderson Elementary at Guam Air Force Base, the Swinomish Indian Reservation, Osan Air Force Base in South Korea, and SPARK in India. This is just the first wave and we plan to continue to send Pink Stewart out more in the future by setting up a request page on our website.

In addition to Pink Stewart’s travels, we attend many other events to stay grounded in our community. Going to conferences allows us to introduce FIRST to STEM professionals, who can volunteer for FIRST teams and share their knowledge base. Some of the conferences we were invited to are the Florida Chamber of Commerce, National Management Association, Southern Regional Education Board, SmallSAT conference, ITTSEC (Interservice/Industry Training, Simulation and Education Conference), and Space Com. At each of these events, we introduced FIRST to the people attending and explained how they can be involved. We have reached an estimated total of ~8,300 people through conferences. Other events we have attended include the WISE Symposium and Girls in Aviation, both of which we were reinvited to. With those two events, we reached ~2,750 people. With all of these events and initiatives growing FIRST, we ensure that the FIRST community thrives.

Exemplifying our idea that FIRST is for everyone, we have worked to aid other teams and encourage collaboration. In 2023, we partnered with FRC Team 1868 Space Cookies to mentor FRC Team 9284 Eduwizards, a team located in Pakistan. We took the role of machining all necessary parts for their EveryBot and mentored them the entire week leading up to the 2023 Orlando Regional and throughout the Tallahassee Regional. While at the Tallahassee Regional, we assisted 9313 Robohana and then again at the 2023 Rocket City Regional. This sparked the creation of our initiative FAR (FIRST Assisting Rookies). The goal of FAR is to ensure each new team has the materials and help they need to succeed. From there, we have assisted 9670 Gadgeteers, 9720 Metal Head Robotics, and 9728 BGCCF Joe R Lee Branch. Our team has contacted a total of 12 rookie teams over the past 2 years. When reaching out we focus on answering their questions, giving advice, and bringing tools for them to borrow at regionals.

This past offseason, we created FRC team 431 Pinkzilla, a rookie team mentored by our recent alumni for students who may not be able to drive out to NASA as often as we meet. This ensures Pink is accessible to anyone interested in robotics. We also mentor our pipeline FTC teams 6323 The Pink Team, 8996 Definitely Not The Pink Team, and 14538 Trust Me, Bro, with knowledge and funding. Through these teams, we build a pipeline from our summer camps to our FRC team.

Along with mentoring our teams, we have hosted Space Coast Showdown out of Rockledge High School for the past two years. Our team hosted this multi-level FIRST event with FTC and FLL scrimmages the first year, and last year an FTC workshop, while still having the FRC offseason event.

We also hosted a joint kickoff with 386 Voltage at the Kennedy Space Center for the past two years, and this year we included FRC team 431. Another event we assisted with was a tour of the KSC visitor complex for FTC teams 19002 Astrix, 24407 Fairobots, and 25197 Circuit Breakers from Cape Town, South Africa. The tour showcased Brevard's close history with the aerospace programs and NASA's impact on space exploration today, which provided a source of inspiration and connection from halfway across the globe. A new collaboration we are a part of this year is the Pink-Knight-Cookies Alliance. This collaboration effort brings us together with 122 NASA Knights and 1868 Space Cookies to mentor each other in all aspects of FIRST. We hold weekly progress meetings to share advice and ideas to help each other improve in the spirit of Coopertition.

Being a NASA house team, Pink receives lots of opportunities for mentorship, which creates a unique environment of learning and teamwork. To spread these opportunities we have begun our new initiative, P.I.T. Crew or Pink In Training. P.I.T. Crew allows us to visit schools in our community and teach students about FIRST, Pink, and STEAM through day camps. The second part of P.I.T. Crew is taking the students to see an FRC competition so they have an in-person experience with FIRST. The pilot test of bringing kids from Vita Prep to the competition will be at the 2025 Orlando Regional. The day camp at Vita Prep included an event that simulated a FIRST competition. We had the students create a small robot that could compete in obstacle courses. Our hope for this initiative is to bring STEAM to an audience of children who may find a hidden interest in robotics. Along with passing down knowledge to students, we host summer camps intended to get kids invested in STEAM by allowing them to interact with hands-on engineering challenges. Last year, we hosted a summer camp where we showed off what FIRST is through various activities ranging from small robot kits to stomp rockets. Our summer camps were just as successful as we hoped, reaching 30 different kids. However, a problem we noticed was that most kids had a specific STEAM-based interest. To solve this, we will be hosting three separate summer camps this summer. These camps will be STEM Engineering, Programming, and 3D Printing/CAD. Our hope in dividing the summer camp up is to not only give the kids more options on what they want to do but also to reach even more people than we did last year. In addition, we also helped run an ESL camp and 6 Lunabotics Jr. camps hosted by NASA in 2023. P.I.T. Crew and our summer camps are to fuel the next generation of FIRST and to inspire students to fall in love with STEAM.

We hope to spread the mission of FIRST around the world through our local community and our worldwide initiatives. We aspire to show what FIRST represents and what we are capable of as a STEAM community. The message of FIRST was made to be spread and make an impact, whether it is big or small in our school or around the world. Because no matter your background, age, or interests Pink and FIRST is for everyone.;