

***FIRST* Impact Award - Team 1676**

2024 - Team 1676
Team Number
1676
Team Nickname
The Pascack PI-oneers
Team Location
Montvale, NJ - USA
Describe the impact of the <i>FIRST</i> program on team participants within the last 3 years. This can include but is not limited to percentages of those graduating high school, attending college, in STEM careers, and in <i>FIRST</i> programs as mentors/sponsors.
Our team awards scholarships to one senior from each school. To date, 28 alumni received this scholarship. As a Pi-oneer, veteran team members have the opportunity to earn district academic varsity letters. Members learn technical and soft skills that serve them past high school. We help members realize their passion: many have found their future careers from their time on the team. 100% of members graduate: 95% major in STEAM fields. 12 alumni returned to mentor this year.
Describe your community along with how your team addresses its unique opportunities and circumstances.
While our team lives in an area where most families are considered to be economically sound, some members are financially challenged. For these students, we waive meal fees and cover competition expenses. To fight food insecurity in our community, we hold bi-annual food drives, but our food donation bins collect food year round. All collections are donated to our local food pantries. Our Red Cross blood drives benefit hospitals in NJ.
Describe the team's methods, with emphasis on the past 3 years, for spreading the <i>FIRST</i> message in ways that are effective, scalable, sustainable, and creative. How does your team measure results?
Our team has changed robotics in South Africa. Our partnership with the Sakhikamva Foundation has reached students in underserved schools. Through this collaboration, we have spread awareness of <i>FIRST</i> and STEAM in South Africa, introducing opportunities to learn they may have never had. This year we have helped to add 4 rookie teams; they have all qualified for their national championship by winning awards and competitions. The veteran teams have all won awards as well. We are so proud.
Please provide specific examples of how your team members act as role models within the <i>FIRST</i> community with emphasis on the past 3 years.
We act as role models by promoting <i>FIRST</i> around the world. Our LEGOs & a Story events have been shared with teams in South Africa, Brazil, and India. In 2022, we donated 52 pounds of LEGOs to the Sakhikamva Foundation for the FTC teams to run the event. Between the two events they hosted, the

team impacted 120 children in South Africa. In January, we hosted Team 19001 Syre from South Africa for Kickoff. They participated in all aspects of our Kickoff, including the engineering design process.

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

Our team mentors 4 FLL, 12 FTC, and 4 FRC teams in the U.S., India, Taiwan, Brazil, Haiti, South Africa, and Nigeria. In partnership with the Sakhikamva Foundation, we helped to start 4 FTC teams in South Africa this year. In February, our team hosted our mentee rookie FRC Team Sigma from India to mentor and collaborate with them during Build Season and we introduced FIRST to a school in Kenya. Our Pi-Partner Program has assisted 15 teams in the past 3 years from our fundraising efforts.

Beyond starting teams, what initiatives have you done to help inspire young people to be science and technology leaders and innovators? What results have you seen from your efforts in the past 3 years?

Our outreach initiatives inspire the next generation. Our annual STEAM Fair attracts over 200 attendees every year, inspiring young learners through our 25-30 interactive tables. To promote girls in STEAM, we host LEGOs & a Movie: Girls Who Code and Build which teaches coding and encourages engineering skills. In the past 3 years 85 girls attended the event, leaving with a newfound sense of pride as girls in STEAM. The team brought attention to STEM in school, increasing the STEM class sizes.

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

This year, we partnered with the Jawonio Foundation, an organization that provides support for intellectually/developmentally disabled community members. We are building a derby ramp for their LEGO store that raises money for the organization. Inspired by our collaboration with West Virginia University, our Adaptive Physical Education Device will be assisting children with disabilities at the University of S.C. this year. We continue to partner with the Coderina and Sakhikamva Foundations.

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

Our team emphasizes diversity and equity. 2 of our international teams, the TechnoBots in Nigeria and High Voltage in South Africa, are all-girls. We hosted our LEGOs & a Movie: Girls Who Build and Code event with our high school's Girls Who Code Club (GWC). The event creates a safe space for girls to explore STEAM with the guidance of GWC and Pi-oneer mentors. 36% of our leadership positions are held by girls. In support of the LGBTQ+ community, our Safety leader is Safe Space Certified.

Explain how you ensure your team and the initiatives you have created will continue to run effectively for the foreseeable future

We have a comprehensive Annual Report and Summary Business Plan which includes a 2 year continuation plan. Our Organization Chart ensures collaboration within and between our SubDivisions and Project Groups. The Book of Pi-Projects allows us to track outreach events with materials, tools, timeline, and feedback; an opportunity for growth as well as sustainability. The Designer is a record of the iterative engineering design process.

Describe your team's innovative strategies to recruit, retain, and engage your sponsors within the

past 3 years

We host an annual Sponsor Night to thank our sponsors and give a gift, certificate of appreciation. Their logo is displayed in our pit, robot, website & shirts, and receive robot demonstrations from the team. This year we are hosting Robot Reveal Night to invite sponsors to see our 2024 robot. 106 potential patrons have been invited. The Finance SubDivision writes grants to potential sponsors. Orange & Rockland gave advice for our Animation Award, we recruited a mentor from sponsor Crestron.

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

We do our best to promote a healthy work-life balance. We encourage team members to look after their mental and physical well-being first. We know that balancing school, life, other activities and a rigorous team like robotics is no easy feat, and the issue has become clearer in recent years. We have a "Mental Health Cart" that provides aromatic teas and hot chocolate where team members can take breaks. We are currently working on more initiatives to help our team members.

Describe your team's goals to fulfill the mission of *FIRST* and the progress you have made towards those goals.

Within our team, Pi-oneers learn technical skills as well as soft skills. In order to prepare the next generation for the future, it is important to equip them with a variety of skills, such as engineering, public speaking, and leadership. We mentor teams nationally and globally. In our collaborations with these teams, we both teach and learn from our mentees. We also prepare elementary and middle schoolers by introducing them to basic STEAM concepts such as simple coding and problem solving.

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 or particularly noteworthy.

39 Varsity Letter recipients past 3 years Well-rounded members: Eagle Scouts, Valedictorian, scholarship winners(team & school) Strong social media: Instagram @frcteam1676: 3125 @frcteam1676safety: 640 Twitter: @FRCTeam1676: 3616 @Team1676Safety:186 Customized The Sponsorship Booklet for international teams, resource on website Inspired South Africa teams to focus on safety/make personal safety cards & booklets Bake sales support Pi-Partners First Aid kits to FLL Tournament advancing winners

Judge Feedback**Who/When****Feedback**

Apr 07,
2024
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AM EST

What area would you like to see our team improve upon next year?
An area the team has an opportunity to improve.
Something that really impressed the judges.

Essay

2024 marks the 20th year of the Pascack Pi-oneers. The people we meet, teams we teach, and children we inspire keeps our members excited to share our enthusiasm for STEAM and FIRST year after year.

Through these valuable experiences, we have fostered a passion for collaborating and developing partnerships to benefit others and welcome them to the Pi-oneer family.

COLLABORATION Collaboration within FIRST and our team has allowed us to do what we enjoy the most: helping others.

New this year is our collaboration with the Jawonio Foundation, a nonprofit organization that provides support for individuals with intellectual/developmental disabilities and chronic medical needs. Their first request was to partner with their retail store, Brick It Again. They requested a ramp for their LEGO car racing fundraising parties. We built an interactive ramp that has a display board to countdown the start and lights to show the finish line. In the future, we intend to develop a device that will assist a disabled employee answer the phone with greater ease.

We are proud to report that the robot we built for the West Virginia University Adaptive Physical Education Program will now be used at the University of South Carolina. The professor who requested our assistance in building this robot has joined USC this year. The robot will assist children with disabilities to participate in sports. With the push of a button, the device allows children to experience the joy of kicking a ball into a goal.

We are also collaborating with one of our sponsors, Haig Services, to code a vacuum robot. When we are finished programming it, the robot will automatically run the vacuum in the school every day. The robot will be shared with both high schools in the district. After this project is completed, our team will continue to work with Haig Services to innovate and improve on other devices as well.

OUTREACH - SCHOOL Our outreach efforts begin within our school community. We have partnered with the Girls Who Code Club to join us to teach girls coding during LEGOs & a Movie: Girls Who Build & Code. The French Honor Society translated our Ready, Set, Speak! Website into French, and the Pascack Hills HS Medical Club partners with us each year to host a Red Cross Blood Drive. We initiated and organized these events to continue introducing our team and FIRST to the school community. Our two schools and district support the team financially, through student exchange programs, by approving food and blood drives, and providing extra custodian hours. Together, we promote inclusivity, learning, and helping others.

OUTREACH - COMMUNITY The Community Outreach Project Group aims to enrich not just our school's culture, but that of our surrounding communities. Our events are designed to equip the younger generation with STEAM knowledge and awareness for the future.

This year, our 4th annual Fall for STEAM Fair hosted 200 children and their parents. Our STEAM Fair introduces children to STEAM and provides hands-on activities. One of our most popular tables, new this year, was Tech Dissection. Children had the opportunity to explore the internal hardware of electronic devices such as laptops and phones, learned how each part contributed to the whole, and labeled the parts on their own. In lieu of admission, we ask for donations for the food pantries or monetary donations to go to our international teams or our Pi-Partners program.

We continue to host our popular LEGOs & a Movie events: LEGOs & a Movie, LEGOs & a Movie: Day at the Races, and LEGOs & a Movie: Girls Who Build and Code. This year we ran Girls who Build and Code as a private event for a Girl Scout troop of 2nd graders. They inspired us with their curiosity and abilities,

and had great questions during the robot demonstration. Another coding-themed event that we host for everyone in the family is Family Coding Day, which gives families the opportunity to learn coding together.

Our team works to combat food insecurity in our community. By partnering with our local supermarkets, ShopRite and Kings, we have placed 3 food donation bins in these stores and collected over 3500 pounds of food since 2022 from generous customers. Our annual Thanksgiving and Valentines' Day food drives collected 1500 pounds of food last year. We also collect food donations during our STEAM Fair. Our team delivers all donated food to the two local food pantries.

OUTREACH - GLOBAL Our team collaborates with other FIRST teams as well as the teams we mentor. One of our long-term goals is to share our STEAM events to countries and communities around the world.

Our Ready, Set, Speak! website was translated into French and shared with FTC Team 58 EduCare Haiti. RSS is a website designed to help children with autism and apraxia of speech in developing their speech and language skills. This year, we exchanged children's outreach events with Team 9199 Sharks in Brazil. We shared our LEGOs & a Story event and they shared their Sharky project (an art project using clothespins to make a shark with an LED light for the eyes). We also shared our LEGOs & a Story event with Team 9692 Sigma in India.

Two years ago, we shared our LEGOs & a Story event with the Sakhikamva Foundation and their FTC teams in South Africa, who hosted their own LEGOs & a Story events. To help them kick off their events, we donated 52 pounds of LEGOs. The events impacted 120 children in their area.

FIRST MENTORING This year we hosted our 15th FLL Bergen BrickFest Qualifying Tournament! 24 teams participated. Of them, all 4 FLL teams we mentor (Team 4618, Team 202204600, Team 10042, Team 53013) competed, and 3 won awards.

In addition, we mentor FTC Teams 15762 and 13617 in New Jersey, and FRC Team 5130 in South Carolina. We help the teams we mentor with non-technical aspects as well as technical aspects. Team members help with design, writing, coding, and more. Our team members act as judges to help the students prepare for real competitions. We help mentees bolster their presentation skills as well.

We publish our mentorship resources on our website for any team to access. These include The Rookie Bookie, The Animation Guide, The Team Sponsorship Guide, Java Guide, and Safety Resources.

Our mentoring journey doesn't stop in New Jersey.

Internationally, we mentor 8 FTC teams in South Africa, 1 in Nigeria, and 1 in Haiti; and 3 FRC teams in India, Brazil, and Taiwan. In February, we introduced a school in Kenya to FIRST. We look forward to starting a mentorship with them. In January, we hosted Team 19001 Syre from South Africa for Kickoff. They demonstrated their robot and celebrated the start of Build Season with us.

During Build Season, we hosted a coach and 3 members from Team 9692 Sigma from India for 1 week. They attended classes during the day and team work sessions in the afternoon to learn from us. We taught them team organization, team branding, mechanical and electrical engineering, and more. We

welcomed them into the Pi-oneer family, forming lasting friendships. We plan to welcome them next year and look forward to visiting them.

This is our 7th year of partnership with the Sakhikamva Foundation in South Africa. We mentor 4 veteran FTC teams and 4 rookie FTC teams there. Through our mentorship, all the teams qualified for the South Africa National Championship by winning awards and competing well with their robots.

Our partnership with the Coderina Foundation in Nigeria has reached its 6th year. We mentor veteran FTC Team 19512 TechnoBots. With our guidance, they won the Connect Award and placed second for the Inspire Award at the Nigeria National Championship.

SUSTAINABILITY Our team strategy for recruiting starts with our children's outreach. Students are introduced to the team, FIRST, and STEAM at every event. There are current team members whose first encounter with our team happened at a Town Day, a parade, or a LEGOs event as a child. There are alumni who currently work in STEAM fields that began their journey at these children's events as well.

Our Mentoring Project Group plays a big role in our sustainability. Our FLL team members are the future of our team, and the Mentoring Project Group focuses on inspiring them to continue their FIRST journey in the Pascack Pi-oneers. 34% of current Pi-oneers were once on a Pi-oneer-mentored FLL team.

Pi-Tech Academy is a 7-week training program held Pre-Build Season. Rookies learn the basics of their SubDivision, receive machine certification, and are introduced to what it means to be a Pi-oneer. Veterans and mentors teach rookies both technical and non-technical skills. All members sign a Team Contract and a Safety Contract to ensure the dedication and safety of our members. The Leadership Training Seminar teaches our CEOs, COOs, and SubDivision leaders how to be effective, inspiring leaders. This program helps our team run in a more business-like fashion and keeps us better organized.

Our Business Plan has a SWOT Chart that lists our Strengths with corresponding Weaknesses and Opportunities with corresponding Threats. This allows us to monitor aspects of our team that need improvement and helps us preclude threats before they occur.

We love our sponsors! We are grateful to those who support us year after year. The Board of Education has sponsored our team from our first year 2004, Nu Spice Seasoning from 2008, and Orange & Rockland from 2013. The Nu Spice company is owned by a parent of a team alumnus! To show our appreciation for our sponsors, we host an annual Sponsor Appreciation Night, display our sponsors' logo in our pit, on our robot, our team shirt, and our website.

Throughout our history, the team has worked to inspire others through FIRST and to share STEAM around the world. We look forward to continuing our FIRST journey with the partnerships we have made and can't wait for the new collaborations to come. ;

