

FIRST Impact Award - Team 1071

2023 - Team 1071
Team Number
1071
Team Nickname
Team MAX
Team Location
Wolcott, CT - USA
Describe the impact of the FIRST 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 FIRST programs as mentors/sponsors.
Team MAX has had a tremendous impact on its members in the past 3 years. All alumni in this time period entered college, and more than 80% majored in a STEM field. Alumni from the past 3 years have already begun to mentor and start FIRST teams. Alumni from this period also serve in important volunteer roles at events. Departing from this time frame, team alumni overall have won multiple awards for their efforts in expanding the mission of FIRST. Alumni have worked with at least 7 FRC teams.
Describe your community along with how your team addresses its unique opportunities and circumstances.
The team takes advantage of the unique aspects of Wolcott. Our school community is relatively small, consisting of around 600 students. Because of this, we are able to make close connections with our community. Because of our relationship with Wolcott Public Schools, we were able to create a robotics class and a period dedicated to working with the People Investing in People Foundation. These classes give regular students the opportunity to be involved in STEM and find interest in Team MAX.
Describe the team's methods, with emphasis on the past 3 years, for spreading the FIRST message in ways that are effective, scalable, sustainable, and creative. How does your team measure results?
Team MAX spreads the message of FIRST in multiple ways. Our two main methods are through managed teams and events. We operated 13 FIRST teams in Wolcott this year, including 11 FLL teams. The team also will have ran or hosted 11 official events in the past 3 years by the conclusion of this school year, in addition to an offseason. We measure results through the amount of teams we run and the number of events we hold. We can also measure results through student retention.
Please provide specific examples of how your team members act as role models within the FIRST community with emphasis on the past 3 years.
Our members act as role models within the FIRST community through working with other teams, running STEM programs, and running younger FIRST teams. At the Wolcott FTC Qualifier, team students put in a total of 99 hours, demonstrating our commitment to the FIRST community. In the 2022 season, Team

MAX assisted Team 5856 in completing their robot. Our members also mentor FIRST teams, and we have had a total of 11 different members mentor a team in the past three years.

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

Team MAX has an incredible track record of expanding FIRST teams within its community. In the past three years, the team has mentored 24 FIRST teams, and assisted an additional 4. This year alone, we started 10 teams. The team has made itself known in the state and New England as an advocate for the expansion of FIRST. When there was a teacher looking to start an FRC team, we were ready and willing to help them out in any way possible. We have made a name for ourselves in the FIRST community.

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?

Team MAX has inspired students to become involved in STEM through initiatives such as Science Splash and Let's Make Stuff. Kids do fun experiments and make projects involving STEM. In the past 3 years, we have created opportunities for new students to become involved in these programs. Science Splash is now encompassing all primary grade levels. Attendance has grown to over 100 students for Science Splash each year, and over 30 students for each Let's Make Stuff.

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

Team MAX has actively been working with the People Investing In People Foundation (PIIP). In partnership with PIIP, we have created a STEM lab fully made up of materials donated by Team MAX. This lab gives students opportunities only offered because of Team MAX's partnership with PIIP, and is essential to nurturing leaders in STEM globally. We have also assisted PIIP in running 'My City My Culture', an event focused on exposing students around the world to the rich culture of Owerri, Nigeria.

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

The team is incredibly proud of its significant improvement in gender ratio since prior years. This year, of the team's students, there are 9 girls and 14 boys, representing a population of roughly 40% girls. This is a great improvement compared to last year, nearly doubling the 20% of the 2022 season. The team is also proud of its outreach to the LGBTQ community. At least 4 of our members are publicly a part of this community.

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

The team ensures that its programs are sustainable into the future. Our relationship with our school system is very strong. This is shown through a \$9600 increase for FIRST activities this year alone. This includes a bolstering of our younger teams through 5 new stipends for adult mentors to improve continuity. Plus, the team has strong connections in the community. The team has the capacity to operate teams and events at our local library, shown mainly through FLL Discover and Let's Make Stuff.

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

past 3 years

Each year our team works hard to bring in new sponsors to support our team and the FIRST teams we run. We send out emails to alumni, family members of our students, and companies in our community who could be interested. Our business team sends letters to potential sponsors along with our sponsorship packages, made in cooperation with the Wolcott Robotics Foundation. On top of this, we create newsletters on monthly activities to keep active sponsors informed.

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

This year our team gained 13 new members, most of which had no former experience in robotics. We made sure to give them lessons on important concepts. Our new, strong mentor base has provided students with knowledge on how to work machines and basic tools in the shop. They have proven to be very valuable to the team. We consistently travel to off-season events to extend students the opportunity to join the drive team and fill important competition roles in a less formal environment.

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

Team MAX is highly committed to the expansion of FIRST and thus fulfilling its mission of inspiring the next generation of STEM leaders. The team directly expands the footprint of FIRST, as we are hosting or running 8 events this year alone. Additionally, we bring new students into the program, having started 10 younger teams just this year. We also enable students to be leaders on our team, having more than 40% of students in leadership roles.

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.

The team is very unique, and as a result runs in a unique way. We are a very small and young team. We have just 23 members. Of those, 19 are underclassmen. Despite this, we are the only team in New England to run an official event at all levels of FIRST. It's an honor to be able to say that we are one in NE, but hope that other teams can do the same in the future. Our social media is impressive. In January 2023, we reached at least 7.1K accounts across Facebook, Instagram, Twitter, and TikTok.

Essay

We Make An Impact

Team MAX 1071 makes an impact internationally and locally. We accomplish this by running long lasting

and effective initiatives that strengthen STEM, support FIRST®, and raise social awareness. Our team empowers its members to become leaders and make a difference. Team MAX sets the standard for how FRC teams should run.

We Make The Leaders of Tomorrow

In the past 7 years, more than 90% of alumni who have entered college have pursued a STEM field. This year, 10 MAX alumni have come back to work with us. Our alumni play an essential role not only on our team, but in the FIRST community as a whole. MAX alumni consistently give back to FIRST, with at least 7 volunteering in key roles at FRC events last season alone. We are also proud to say that at least 4 affiliates of Team MAX have won Volunteer of the Year awards.

Team MAX ensures all members gain collaborative skills and experience to become a leader. We create opportunities for members to own initiatives during both build season and off season. Currently, >40% of MAX members have a leadership role on the team, ranging from running community service programs like Science Splash, to managing key systems of the robot.

We Make Strategic Connections to Support Our Robotics Programs

Since day one, our biggest partnership has been with the Wolcott Public Schools (WPS). WPS recognizes the positive impact the program has on preparing students for the future. Because of this, WPS provides us with the school's metal shop and has increased our budget by \$3500 this past year to improve our younger teams. Team MAX advocated for this budget increase and for the creation of 5 new stipends.

Another major partnership has been with the Wolcott Public Library (WPL). We have run events with them for 4 years that draw more attention to the library, while highlighting the importance of STEM and FIRST in our community. Programs like Let's Make Stuff and our FLL Discover provide a framework where team members work with WPL staff.

In 2018, team affiliates founded the Wolcott Robotics Foundation (WRF) in order to find an avenue to improve sustainability of programs. In partnership with this foundation, the team is able to handle funds with more ease, including quicker access to them. In a collaboration between team mentors, alumni, and community members, the WRF is quickly expanding to be an independent entity bolstering the overall robotics program in town. The most recent success is a 20th Anniversary Dinner, which raised more than \$5,400 for our programs.

Another way our team creates stability is through the recycling program we run. MAX began the bottle & can recycling program at Wolcott High School (WHS). Because of our success, we quickly expanded to metal and electronics at the school, and to recycling for our community at large. Each month we raise \$400, which is dedicated to our FIRST teams, general finances, and overseas programs.

Last year, we recognized the team's instability regarding our mentorship. In order to address this, we reached out to people who showed interest in our team through social media-such as Facebook-and newsletters. As a result of this, the number of mentors on our team has increased drastically from 5 to 12 since the 2022 season.

The Central Connecticut Robotics Alliance (CCRA) was founded by teams 178, 1071, and 3461 in order to build a full size FRC practice field at Tunxis Community College. We are halfway to raising the requisite funds for this project. With this partnership, FRC students have the opportunity to experience the Tunxis campus and see if it is right for them, helping the college as well as local teams.

We Make STEM Programs That Educate and Excite

In 2011 we began Science Splash, a week-long program that ensures Wolcott students have an enjoyable STEM experience. This year, students on Team MAX have run 8 weeks of Science Splash, dedicating 150 hours to the program and showcasing 63 experiments to over 140 students. By running 2 experiments a day, we are able to bring in a wide array of concepts such as buoyancy, freezing points, and electrical energy. This year, engagement with Science Splash has gone through the roof to incorporate more grades and meetings per school. At Alcott Elementary School, we extended the program by a week, doubling participation from 20 to 40 students.

Another community-based STEM initiative is Let's Make Stuff. Started in 2015, this program allows for kids to build exciting projects and take them home with the help of MAX members. Some of our hit projects include jiggly robots, terrariums, and rubber band cars. In the past 3 years we have helped students create over 250 projects. During the pandemic, our team worked hard to guarantee the continuity of Let's Make Stuff. We held events in a live virtual format so that we could keep the personal impact of working with students one on one.

We have continued to improve the town's awareness of the importance of STEM. For 2 years, we have welcomed Cub Scout Pack 230 and introduced STEM concepts through fun activities such as making kaleidoscopes and tin foil boats. The success of this initiative has proven our connection will continue long into the future.

We Make a World of Difference

Team MAX creates cultural connections and spreads STEM around the world. For the past 7 years, we have collaborated with the People Investing In People Foundation (PIIP) and the American Cancer Society. In the past 3 years, we have contributed over \$10,000 to PIIP in the form of cash and equipment to help their mission.

In 2022, Team MAX supported PIIP in opening a science center in Owerri, Nigeria known as the Innovation Labs (ILABS). ILABS is made up of technology donated by us, including iPads, computers, arduino kits, and even FLL and FTC robots. In addition to this, MAX has recently sent a full sized FRC robot to Owerri to be put in the science center. ILABS has become our base of operations in Owerri, where students learn STEM topics that they would never have seen in school. On opening day, 5 members of Team MAX were present virtually to welcome staff and visitors.

In cooperation with PIIP, Team MAX has assisted in running 'My City My Culture', an event focused on introducing students in the US to traditions in Owerri. Our team reached out to schools across Connecticut, encouraging students to join the event via Google Meet. The first was held on December 15th and was a major success, as students in US schools were exposed to the rich culture of people in Owerri. We are excited to expand this program further and reach out to more schools nationwide.

We have also created a class at Wolcott High School that allows students to work one on one with students in Nigeria. This collaboration has been so effective that some students in Owerri have left their schools to attend ILABS full time.

The team is in the process of reimplementing Wolcott High School's exchange student program in order to bring students from Africa to Wolcott. Students on MAX are in contact with the school administration, discussing how to ensure this takes place. One of the priorities of this exchange program is to allow Owerri students involvement in FIRST. This project would be a major accomplishment for both PIIP and Team MAX.

In addition, Team MAX has been running Pizza Wars to raise funds for the American Cancer Society for a total of 7 years. In 2022, MAX resurrected this fundraiser, incorporating 6 local pizza places and raising over \$1200 at that event alone. This event helps boost public awareness of the team.

We Make Our Team a Leader in Spreading the Word of FIRST

Our team is a notable leader in spreading FIRST throughout our community and New England. For at least this season, we are the only team in New England that will have run an official event at every level of FIRST.

At the conclusion of the 2022-23 season, we will have: -Run an FLL Discover Celebration at the WPL for 2 years -Run an FLL Explore Celebration for 7 years -Run an FLL Challenge Qualifier for 11 years; 1 of 5 qualifying events in CT this year -Run the official CT FTC Kickoff for 1 year -Hosted an FTC Qualifier for 4 years; 1 of 3 qualifying events in CT this year -Hosted an FTC State Championship for 1 year -Run the official CT FRC Kickoff for 8 years; the only official kickoff in CT -Run the Where is Wolcott FRC Invitational for 12 years

We also run a significant number of FIRST teams. We have 4 FLL Discover, 4 FLL Explore, 3 FLL Challenge, and 1 FTC team; 11 teams were started this year. We have run FLL for the past 22 years and embrace every program as it has been introduced. We are proud of our recent growth coupled with our long standing commitment.

We Make a FIRST Experience That Lasts a Lifetime

Team MAX is more than robots. Through our superb work in inspiring both local and international students, the team is able to truly embody the core tenets of FIRST. Our members become leaders and take initiative in the community. With our various connections, from town members and local organizations to large corporations, we create a stable environment for the team. This allows us to create and run STEM programs that educate and excite kids at both a local and international level. With our successful programs and engagement with our community, we create a strong FIRST pipeline, becoming involved at every level of FIRST in ways that other teams are not.

Our success is not simply measured by the amount of points we score on the field, but by the impact we leave on thousands of lives. Team MAX changes the way a FIRST team is defined, constantly taking on the role of making a better world.

There are some teams who submit for this award because they're told to. There are some who simply

want the blue banner. We know that to be truly deserving of the Impact Award, there needs to be years of effort filled with meaningful and long lasting initiatives.

We know the impact we have.;

