

FIRST Impact Award - Team 245

2023 - Team 245
Team Number
245
Team Nickname
Adambots
Team Location
Rochester Hills, MI - 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.
The FIRST program has impacted our team and students in our community to pursue STEM in their careers. 95% of our students have attended college, and the vast majority of them have received degrees in STEM-related fields. Numerous AdamBots alumni have even come back to mentor or start FIRST teams, as well as volunteering at FIRST competitions. 75% of current members plan to pursue a STEM or Business major, with a majority saying the FIRST program inspired them to pursue that degree.
Describe your community along with how your team addresses its unique opportunities and circumstances.
Rochester is a community with high aspirations and opportunities. To embody this, the AdamBots created and annually partake in the Hunger Walk to donate to Rochester Area Neighborhood House. We participate in Operation School Bell through the Assistance League which donates personal care items. We hold drives for Coats for the Cold and Toys for Tots that donates coats and toys to those in need. We demo our robot at football games and science fairs to bring STEM awareness to our community.
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?
Our website helps us spread the FIRST message in many ways, containing our past Business Plans, Impact resources, training videos, and more for all teams to use. Our business plan ensures sustainability via "seed money," allowing smooth yearly transitions to continue FIRST robotics in case of hurdles. Our mentoring program also inspires students to continue FIRST. We also participate in the Rochester Parade to spread STEM awareness. From our efforts, our team has grown over 20% this season.
Please provide specific examples of how your team members act as role models within the FIRST community with emphasis on the past 3 years.
The AdamBots act as role models for all levels of FIRST. We started team 5436, the CyberCats, and provided them with build spaces and mentors. We presented our methods to sustainability and success

at the Mexico FIRST robotics fests. In 2022, we hosted a mock FLC tournament to prepare FLC teams for competition. In 2023, we continue to facilitate weekly FRC collaboration meetings during the FIRST season for local and international teams to aid in design, business, scouting, and programming.

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

The AdamBots are committed to assisting FIRST teams on all levels. This season, we assisted 9 FLC, 21 FLE, and 2 FTC teams among four schools, including finances, building space, administration, and student mentoring. Every AdamBot mentors these teams weekly by providing feedback, ideas, support, and fun, resulting in about 1000 total hours of mentoring. On top of mentoring, we host weekly collaboration meetings during the FIRST season with 8 other FRC teams, including 2 from Mexico.

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?

The AdamBots are committed to inspiring young STEM leaders. As part of that endeavor, in 2022, we demoed past FRC robots at elementary schools, football games, and libraries. We ran a Mock FLC event at our school to encourage young people on FLC teams to pursue STEM and continue doing robotics. Also, we provided financial support for teams from our middle schools for the 2022 World Championship. As a result, our team is always growing its impact through increased membership and sponsors.

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

During the 2022 offseason, the AdamBots created a new partnership with the Student Association for STEM Advocacy (SASA) by attending the National Advocacy Conference (NAC) and Michigan Advocacy Conference (MAC). At these conferences, we met with our state and federal legislators to help increase STEM education funds through the Every Students Succeeds Act. Additionally, we partnered with the Assistance League, where we helped the less fortunate by providing school supplies and winter clothes.

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

The AdamBots strive to make sure all members are respected and included. This season, our team presented to the Diversity, Equity, and Inclusion Committee in our school district to showcase how FIRST ensures a positive environment for all. In addition, the AdamBots are inclusive of women in STEM by participating in the Bloomfield Girls Competition. Also, in support of our LGBTQ+ community, we hand out pins and display LGBTQ+ posters to spread awareness at competitions through LGBTQ+ of FIRST.

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

Our core values ensure the commitment and clear communication of all team members, resulting in success. Furthermore, many of our initiatives for sustainability are included in our business plan. Annually, we try to gain at least one new sponsor and mentor. In addition, we have a strong relationship with our school district and administration, resulting in an increased number of new students through our mentorship program and gaining additional build space and support.

Describe your team's innovative strategies to recruit, retain, and engage your sponsors within the past 3 years

To recruit sponsors, our public relations team aims to gain at least one new sponsor every season. Many of these sponsors come from parent and mentor connections. We retain and engage sponsors by sending out monthly newsletters to keep them updated on our team's accomplishments. We invite our sponsors, such as GM, APTIV, and the School Administration to events such as "Meet the AdamBots" to showcase our team. Also, we invite them to competitions, and robot demos at events held by sponsors.

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

Innovation and Creativity is one of the AdamBots' core values which we always seek to better embody. For example, this offseason, we began a swerve drive project. As a result, veteran students are better prepared with the swerve drive technology, while new students were provided with hands-on experience with FIRST building. Additionally, we are updating our ordering process to adapt to the ongoing supply chain crisis, where many parts are on several weeks' backorder.

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

The AdamBots accomplish the mission of FIRST by engaging students and providing them with experiences inspiring them to pursue STEM careers. We encourage students through our Ambassador program, where AdamBots take FIRST kits abroad and spread FIRST's message. We also employ a subteam system, which guarantees engagement from every AdamBot and inspires them to have impactful STEM experiences. This results in 75% of our students being inspired to go into a career involving STEM or Business.

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.

To further the FIRST message, the AdamBots instituted local STEM advocacy. We trained two local teams about Advocacy and met with the mayor to promote STEM education. Also, this season, we were contacted numerous times by our school administration to represent Adams High School at various presentations. This includes presenting to the Rochester Chamber of Commerce, our school board, our superintendents and administrators, and the Diversity, Equity, and Inclusion committee within our district.

Essay

Introduction As the AdamBots, we lead, collaborate, and dream of a better future. We are learners, teachers, and future innovators. We inspire leaders and aspire to be leaders. On our team, FRC isn't just a robotics competition; it's a cultural movement. We aim to excite and inspire students to become the ones who drive the future of STEM. We maintain an extremely high GPA and excel in honors and AP classes. We are the AdamBots: a group of inspiring students dedicated to having a positive impact on the global FIRST community.

Mentoring The AdamBots value the growth of FIRST and spreading the AdamBots message. By mentoring teams at all levels, we invite a greater audience into the field of STEM. We start teams by providing them with aid, and helping run events; we instill in our members a respect for not only FIRST but STEM as a whole. Since the beginning of the program, we have aimed to inspire kids to build their interest in STEM; now, many past students have joined the team to share their passion with the next generation. Each AdamBot contributes at least 90 minutes a week to mentor other teams, totaling up to over 100 hours per week distributed over four months.

For the younger levels of FIRST, we offer mentorship and assistance, which comes in the form of building space, finance, and guidance through the season. By connecting with younger FIRST students, we provide them the opportunity to gain knowledge through hands-on experiences in STEM. This year we aided 32 FLC, FLE, and FTC teams (more teams than we assisted last year).

The AdamBots are blessed to have mentors with decades of experience and specialized degrees in their respective subteam. These mentors are invaluable to the team, as they teach students about various aspects of the team in engineering as well as business. When new mentors join the AdamBots, the veteran mentors are happy to offer them guidance so they can inspire and impact students. Additionally, other FRC teams regularly ask the AdamBots mentors questions regarding engineering design and programming during collaboration meetings. Our mentors are happy to share their decades of expertise with other teams.

In addition to mentoring, every student spent at least three hours volunteering at events for all levels of FIRST to provide assistance. This year the AdamBots held a mock event for FLC to help teams prepare for the actual tournaments. We have also supported events for younger levels of FIRST at two other highschools.

Our FRC Programs The AdamBots continue to give back to those in the FRC community. We strive to pass on and gain knowledge from our competitors and allies. We assist them through the many resources offered on our website and hold weekly meetings with teams. Also, we feel we are blessed with many resources and take pride in sharing them with other teams.

The AdamBots also strive to spread the FIRST message within the FRC community. We believe in ensuring that everyone has access to STEM education. To achieve this, the AdamBots started team 5436, the CyberCats, to establish an FRC team in every high school in our district. We provided the CyberCats with build space, mentors, finances, business plans, and made other resources available to them. Furthermore, we have helped FRC teams outside of our local community, such as team 6121, the Robovikes from Grayling, where we provided mentorship, business plan, tools, and materials to the RoboVikes to provide STEM access to all students. We also support the Village Bulldogs (3096), Team SHIELD (5213), and RoboPheonix (2224) by collaborating with design and assisting in programming.

Additionally, the AdamBots have worked to spread the FIRST message internationally. We assist two teams in Mexico, specifically SteamEx and the Lambots. We helped both teams with the design review and business plan. Also, due to our connections with the Lambots, we presented our business plan at the Mexico Robotics Festival and helped spread our keys to success and the importance of STEM to over 10 Mexican FIRST teams.

To keep our team organized, the AdamBots created a Sustainability and Business Plan which we update annually. The Sustainability and Business Plan includes extensive information on managing sponsors, our core values, and budgeting. We share the plan with other teams on our website and have presented it at Kettering University.

To help other teams, the AdamBots host weekly zoom meetings with many FIRST teams. In these zoom meetings, we assist teams with engineering design, scouting, and strategy. As a team, we share our knowledge and positively contribute to the FIRST community.

Outreach (Local and Global) The AdamBots' Ambassador program ensures that we can broaden our outreach in full measure. In the program, an AdamBot who is traveling internationally uses their opportunity to spread the message of FIRST. They present to various schools about robotics and STEM. At the schools, the AdamBots bring FLC kits and demonstrate robots, emphasizing the large extent of the impact of FIRST. They explain how it inspires and motivates students to pursue STEM while creating memorable experiences. By presenting about FIRST, the AdamBots spread important values and actively influence the world, permanently impacting the lives of children worldwide.

To help spread the influence of the AdamBots, we send out monthly newsletters to our sponsors and supporters, updating them on the team's progress throughout the season. Along with participating and helping in numerous events, this keeps our sponsors engaged and ensures the sustainability and success of our team. In the newsletter, we include the outreach events in which our team has participated.

The AdamBots demo their robots at many science fairs, farmers markets, and sponsor demonstrations to influence the adoption of STEM in our local and global communities. By doing this, we advocate not only for STEM as a whole but also aid in developing the interest of the younger FIRST teams. During the offseason, the AdamBots partnered with the Student Association for STEM Advocacy (SASA) to gain more resources to spread STEM education. Through SASA, the AdamBots were able to advocate for more funds for STEM education to members of both National and State-level Congresses, resulting in significantly greater funding for STEM education across the United States. After attending the National Advocacy Conference (NAC), we were invited to serve on the Michigan Advocacy Conference (MAC) Advisory Council through SASA. We helped guide students from FRC teams across Michigan to prepare them for their meetings with their legislators at MAC. Through what we learned at NAC and MAC, the AdamBots continued advocacy efforts at a local level. The AdamBots presented to District Administrators such as Principals, School Board Members, and the District Superintendent to showcase the importance of STEM and creative learning in schools. Also, as a part of Rochester United, we started a local STEM advocacy group and meet with our local town mayor Bryan Barnett and the Diversity, Equity, and Inclusion committee on Rochester Community Schools to spread the FIRST message. As a result, our local community has opened up FIRST robotics programs at all schools, inspiring other districts.

The AdamBots started and annually run the annual robotics Hunger Walk, an event to raise money for

the Rochester Area Neighborhood House (RANH). We invite the FEDS, the CyberCats, and the middle school FTC teams to take a short walk through Rochester's municipal park. Students donate \$5 along with canned food items to give to the RANH. In addition to helping the community, students have an excellent opportunity to bond with other robotics teams. In 2022, the Hunger Walk raised over 400 pounds of food and \$1050.

In addition to supporting many local charities, like the Assistance League, the AdamBots has supported many national organizations, inspiring many people. For example, the Fight Against Cancer is an issue that has affected many members of the AdamBots family. The AdamBots annually participate in Relay for Life to raise funds for the American Cancer Society. The AdamBots have partaken in this event for over 20 years, raising over \$115,000 for cancer research. Additionally, the AdamBots regularly donate a portion of our parking lot fundraiser from the Art and Apples festival to charities; this year we donated to Nova Ukraine, a non-profit organization that raises awareness and offers humanitarian aid to the people of Ukraine impacted by the Russo-Ukrainian war. Alongside this, we help load trucks for the Assistance League, a non-profit organization that works to provide for the local community based on volunteer work.

Conclusion As AdamBots, we learn to collaborate, lead, and innovate. These skills are fostered by strengthening FIRST in our community and spreading its message to others. We impact students spanning through their educational journeys to their professional careers. Early on, children find inspiration through our demos at their science fairs and become excited about STEM through their FLE or FLC teams. As they make their way through their robotics journey, they enhance and strengthen their skills and knowledge through FTC and climb up to FRC. Our program has had an impact on all of our alums. Many have excelled in STEM, including jobs in engineering, medicine, and other sciences. Furthermore, the AdamBots spread our positive charge to parents, mentors, school administration, and more. Through FIRST, we strive to create a better future. We are the AdamBots: an inspiring learning environment dedicated to building a global FIRST community. ;

