

FIRST Impact Award - Team 772

2023 - Team 772
Team Number
772
Team Nickname
Sabre Bytes Robotics
Team Location
LaSalle, ON - Canada
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 had an everlasting impression on our members. The passion for FIRST is permanently implanted in their hearts, with 40% returning to mentor or volunteer. In the last 3 years, 97% of our graduates have pursued post secondary education in STEM, with the remaining 3% entering apprenticeships for skilled trade careers. Many of our graduates have earned STEM scholarships and awards due to the training, networking, and soft skills achieved in FIRST.
Describe your community along with how your team addresses its unique opportunities and circumstances.
We are a school-based team, located within Windsor-Essex County: the Automotive Capital of Canada. Our location has provided us with connections to many partners, sponsors, and mentors. Due to the dense population of FIRST teams in our community, many newer teams struggle to find their footing and reach willing sponsors. Through our Sabre Hub, we share our experience, partnerships, and published resources to support these teams and continue expanding our thriving local FIRST 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?
Alongside promoting the robotics course and team, we connect our community with FIRST through camps, events, initiatives and more. To advocate for FIRST, we have expanded our social media to reach over 13,000 people. Additionally, we have reached over 250,000 people over the past 3 years through our initiatives, have attended over 20 local outreach events annually, and have expanded our FLL Without Borders to evoke interest in FIRST globally, tracking our reach in a virtual record since 2014.
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 team members have always had active roles in the FIRST community by offering support to all FIRST teams through our HUB, running events such as Off-Season and practice days, mentoring FLL teams, and volunteering at competitions. In the past 4 years, our team has had over 50% female leads,

furthering the goal of girls in STEM. As role models, we inspire the next generation to pursue STEAM by running robotics camps in partnership with FIRST Canada, Girl Guides and local libraries.

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

We have started and mentored 151 FIRST teams, 25 within the past 3 years. Our Sabre Hub is instrumental in supporting teams virtually and in-person, providing mentorship, facilities, materials, published resources, and a practice field. To prepare for the season, we run practice days and connect with as many teams as possible, especially post-pandemic to get teams active once again. For example, we supported 4920's comeback with recruitment presentations, mentorship, and financial aid.

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?

To support youth education during the pandemic, we ran over 60 hours of virtual STEM camps, impacting more than 100 students and their future in FIRST, and, once restrictions loosened, we ran over 70 hours of in-person camps, nearly doubling our virtual reach. This was aided by partnerships with a Youth Optimist Club and local Girl Guides, who we continue to visit to further their interest in STEM. Through these efforts, we have seen many students go on to join a FIRST program.

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

Our team's passion allowed us to form a partnership with our school board to establish FIRST-based robotics courses to encourage hands-on STEM education. Our school trustee has been a committed advocate, helping communicate with our school board in support of FIRST teams. To promote 772 and the FIRST programs, we have partnered with an alum to create a documentary. We continue to grow our partnership with Windsor-Essex Libraries to promote FIRST, run FLL teams and camps.

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

Equity, diversity, and inclusion are key to our team's vision of making STEM education accessible to everyone. We have run various Girls in STEM events and are planning an LGBTQ+ of FIRST event through our Gold-Tier partnership. On social media, we create educational posts supporting Indigenous History, LGBTQ+ representation, Black Lives Matter, and more. Through our old Project Synthesis and latest Project Colour, we promote EDI in our community through quizzes, workshops, and events.

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

Our team continues to work towards maintaining and improving all our initiatives by ensuring all new members partake and understand our team goals. Our team has maintained our stability for 21 years, due to logging everything, passing on training, consistent supportive mentors, and continuous team growth through many events. Setting goals using detailed plans and assigning responsibilities for our initiatives makes it easy to continue developing them each year and continue making a difference.

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

past 3 years

Our team forms strong partnerships with our sponsors by including them in events, sending yearly newsletters, frequent emails and thank you gifts, and recognizing them on our robot, gear and website. We find new sponsors through team members, outreach, and by sending our sponsor package or pitching our team in-person to potential sponsors. To show our appreciation for our sponsors, we run an annual Sponsor Appreciation Banquet showing what their support has enabled us to accomplish that season.

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

One area our team is always improving is our organization. We have started using programs like Asana to manage tasks, and revamped our team communication by using Slack, which has improved our team's adaptability. We have created a Gantt Calendar for our Business Section to help us stay on track for future seasons even after our current members graduate, and are also utilizing a corkboard in our robotics classroom to post upcoming deadlines so that everyone stays up to date.

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

Our team's goals to fulfill the FIRST mission and give all youth access to STEM education has led us to run STEM camps, participate in outreach events, create robotics courses, and start and mentor 160 FIRST teams of all levels. With our FLL Without Borders program, we have impacted youth by running camps and sending STEM supplies to underserved and diverse groups in Ontario, Colombia, Peru, Nunavut, Morocco, and Kenya, with plans to expand further and continue to spread the FIRST message.

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.

Our prioritization of health and safety has led our advanced safety program to spread beyond our team through the distribution of safety kits to rookie FIRST teams. We support many causes we believe in: advocating and promoting the Be a Donor campaign, and supplying the LaSalle Hangout and Welcome Centre for Women with donations. Through our EnvironmentFIRST initiative, we began project Buttons Be Gone to recycle unwanted buttons to prevent them from ending up in landfills.

Essay

A picture is worth a thousand words, but to the Sabre Bytes Robotics Team 772, every picture can be separated into thousands of pieces, each revealing a small yet important part of the whole scene. This

logic can be applied to many other things as well, such as the makeup of people, teams, and communities. Team 772 applies this logic in reference to itself, with how even though it is only one team, it is actually the combination of every new team started, initiative completed, competition played, and person impacted that truly defines The Sabre Bytes. Each part is a PIECE of the PUZZLE - their digital and physical footprint, internal and external growth, outreach, and partnerships - that when connected with experience and care, form the big picture of the 772 FIRST community. To begin, while only becoming a prominent PIECE of the PUZZLE a few years ago, the 772 digital footprint enables them to connect with teams and people all around the world with just a few clicks. The team uses platforms such as Instagram, YouTube, TikTok, and more to raise awareness about important issues and celebrate accomplishments. 772 continues to educate others on causes they believe in, including, but not limited to, mental health, environmental sustainability, and inclusivity towards the LGBTQ+ community, indigenous communities and other marginalized groups. Additionally, each year, the Safety section of Team 772 creates projects focused on education, inclusivity, and physical and mental health, utilizing the digital platforms to further their program. In the past two years, 5 projects were created to keep students engaged during the pandemic followed by a safe return to competition. This year, the Safety section continues to educate through three new projects: Project Dynamo to teach safe practices, Project Colour to spread EDI, and Project Leaf to promote environmental sustainability. The next PIECE of the 772 PUZZLE is their physical footprint: a fraction that ensures the sustainability of both the team, and the planet. In 2019, Team 772 created their initiative EnvironmentFIRST and the project Buttons Be Gone. Through EnvironmentFIRST, the Sabre Bytes participate in cleanup days around their community and convey the message of working towards the common goal of sustainability. Through Buttons Be Gone, the team collected unwanted buttons that had been acquired at events, to be recycled properly, avoiding the accumulation of wasteful garbage. As of this year, over 50 pounds of buttons were recycled at the Total Scrap Management Recycling Plant. An important note about Team 772 is that their PUZZLE is not static; it continues to grow as they continue to spread the FIRST message in their community and beyond. However, to be able to grow their outer environment, they need to ensure their internal team environment is stable and fully Charged Up. The Sabre Bytes use Grade 8 nights and the Robotics Course they helped implement in their school board to recruit and ensure team sustainability. This course, started in 2019, teaches students the fundamentals of designing, building and programming a fully-functioning robot, using FTC games as curriculum challenges and having the FIRST Core Values at its heart. On the topic of FTC, the Sabre Bytes' school created their own FTC team, 16183 Club Sandwich, when FTC opened up to Ontario. With the pandemic, the growth of Club Sandwich was interrupted, but, nevertheless, they continued to participate in FTC by hosting an off-season scrimmage and a virtual FTC event in 2022, and by collaborating on the first Windsor-Essex in-person FTC event this season. Team 772 aspires to include their community in their PUZZLE. As the PIECES regarding their inner-workings expand and become stronger, so do the PIECES regarding their external growth and community influence. Over the years, 772 has started 26 FRC teams, 6 FTC teams, 83 FLL Challenge teams, 33 FLL Explore teams, and 2 FLL Discover teams. During and after the pandemic, many of the teams were unable to compete, but this season, 35% of teams are active and the Sabre Bytes are working hard on restarting the remaining teams, through constant communication, practice days and the sharing of resources. This process is made more efficient for teams through the Sabre Hub, one of only four Super Hubs in Ontario. While 772 had to switch their Sabre Hub to a virtual format during the pandemic, the Sabre Hub is back in-person, opening their doors for teams to access their workshop, practice field, and in-person mentorship. For example, teams 4903, 4920, 6875, and 8081 have recently utilized the resources the Sabre Hub provides, including but not limited to programming mentorship, machine shop access, design mentorship, and financial and recruitment aid, respectively. In addition, 772 team members are still providing online support through emails, virtual calls, and their published

resources. Accessed by over 25 teams, Business in a Box is a published resource that provides teams with documents on how to fundraise, gain sponsors, submit for awards, and more. Most recently, the team has created the Rook Book: a document to support and mentor rookie teams, teaching them everything there is to know about FIRST, from the biggest of general concepts, such as what FIRST is, to the smallest of often-forgotten details, like what to expect at a competition. The team is now working on creating a version of the Rook Book for rookie students on their team, adding facts about team history and spirit. Using their passion for FIRST and STEAM, Team 772 interconnects their PIECES with people all over the world, reaching over one million people. Locally they participate in over 20 annual outreach events with their robot to evoke interest in robotics and STEAM, educating kids and adults on all FIRST programs. Additionally, they ran many robotics camps throughout the off-season, beginning in 2020 with their Virtual Summer STEAM Camp, focusing on FLL challenges and FIRST Core Values. Thanks to positive feedback from campers, they continued these camps through the pandemic, amassing a total of approximately 60 hours of online learning in the summer of 2021 with camps in partnership with FIRST Canada. Their first in-person camp in over 2 years was in spring 2022 at the Bryerswood Youth Optimist Club in partnership with local Girl Guide units, sparking a continued alliance with the Club and Girl Guides that has since grown. For example, they ran a week-long camp at the Club last summer with additional LEGO WeDo2.0 robot challenges, and have been regular guests at Girl Guide meetings to run STEAM and LEGO activities, with another day-camp scheduled this month, and plans to run more camps over both spring and summer breaks. Globally, they have launched FLL Without Borders to bring LEGO robotics to underexposed children around the world. Since 2017, they have brought LEGO kits, computers, mentorship, youth camps, and teacher training to Morocco, Peru, Nunavut, and more locations around the world. In 2021, they partnered with famous Canadian author Eric Walters and his Creation of Hope program to bring over \$1000 worth of educational and sanitary resources to the Rolling Hills Residence Orphanage in Kikima, Kenya, home to more than 80 orphans. This year, they have expanded the program to Colombia with help from their contacts in Peru, bringing LEGO kits and program materials and commencing a series of video calls with the Tecno Academia Itinerante youth program. The team continues to find new ways to share the joy of FIRST and robots with youth around the world by actively working on bringing FLL Without Borders to Israel, France, Ireland and other locations in Canada, and by beginning the process of writing and publishing two children's books to introduce kids aged 0-8 to the world of FIRST in an exciting way that also supports their reading progress. To ensure their PUZZLE is complete, Team 772 uses their partnerships as the glue that holds it together. By partnering with the University of Windsor and St. Clair College, Team 772 helped inspire the offering of scholarships to FIRST alumni, had a prominent role in the startup of the Windsor Essex Great Lakes District Event, and was able to start their very own Southwest International Off-Season Event that funds participating teams' journeys to the World Championships. By partnering with many other FIRST teams, the Sabre Bytes are able to promote initiatives and support worthwhile causes; they joined FRC Team 1868's m.e. FIRST Alliance, and plan to use FRC Team 4191's Carbon Calculator. As well, 772 upholds their gold-tier partnership with the LGBTQ+ of FIRST, with plans to run an event this year, and, in 2017, they joined the Compass Alliance to spread their reach to more global locations. 772 maintains contact and partners with their alumni to continue to keep them involved and further their reach. Thus, they have partnered with an alum studying Communication, Media, and Film at the University of Windsor to make a documentary about 772 and the benefits of the FIRST program, which will be used for promotional and educational purposes. On their own, each PIECE of the 772 PUZZLE is minimal. A fragment that reaches across the globe, making a small impression on its own unique area. However, alike to how a distance travelled is made up of every tiny step taken in the right direction, every social media post uploaded, button collected, event run, team mentored, resource published, camp lead, and partnership formed progresses towards the realization of 772's mission. All of these PIECES are a part of

Team 772's identity, and when merged together, they create a beautiful mosaic portraying every person and place the Sabre Bytes have been able to reach and impact. Overall, as 772 connects the PIECES of their evergrowing PUZZLE, they anchor FIRST to their local and global community, forming the big picture of what it truly means to be Team 772.;

