

Chairman's Award - Team 1899

[Print](#)[Close](#)

2021 - Team 1899

Team Number

1899

Team Nickname

Saints Robotics

Team Location

Bellevue, Washington - 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.

The FRC program has significantly impacted the members of Saints Robotics. Of the 40 seniors in the past 3 years, all have graduated or are on track to graduate from high school. With almost 70% going into STEM fields, many also pursued similar interests to what they found with FIRST, such as entrepreneurship or business. Beyond that, FIRST has impacted our mentors, with 2 of our 15 mentors being FRC alumni. Our alumni also volunteer as judges at competitions.

Describe your community along with how your team addresses its unique opportunities and circumstances.

Our team appreciates our relationship with the Bellevue community ranging from Bellevue Alliance of 5 FRC teams, with FTC and FLL teams, to the strong connection with local elementary and middle schools. Having experienced the struggle of coordinating a team mostly online, we took the opportunity to assist fellow schools, by starting an online homework help plan with a nearby elementary school. A company in our community, Dunn Lumber, assists us greatly as our robot is partially made with wood.

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 team shares our passion for STEAM with others such as younger students in particular. For instance, we planned to attend many local elementary STEM fairs with our robot and led summer robotics camps but covid cut it short. Instead, we hosted online summer and winter STEM camps. We measure our success by the engagement of our team members in both the competition aspect and outreach because it is only through the passion of our members that we are able to maintain and grow our initiatives.

Please provide specific examples of how your team members act as role models within the *FIRST* community with emphasis on the past 3 years.

We present at our school fairs and community gatherings to rally interest and support among our team and community. We help organize FLL Qualifiers, Scrimmages, Junior Expo, FRC virtual pits and FTC kickoff. We also partake in other FIRST events such as the AVID Stem academy and volunteering. Currently, we are in the process of collaborating with an elementary school so that we can maintain our connection to 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.

Our team has mentored 6 FLL teams and 2 FTC teams in the past but could not continue this year. We instead reached out to an elementary school to help FLL teams pursue their interest in STEAM through weekly homework help. Additionally, we are active members of the Bellevue Alliance and share our ideas and opportunities with other FRC teams. We also assisted during virtual pits, which helps teams that struggled during covid. Recently, we have been interviewing other teams in our podcast.

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?

Education of young students has always been one of our main areas of focus. Last summer we started our ISOLE program, where we taught over 100 students the basics of STEM for free using Scratch classroom. Similarly, we also had our Winter SOLE program and our previous in-person program SERC. In the previous years, we hosted both FLL qualifiers and scrimmages annually to support our FLL teams. Furthermore, we have volunteered at middle school coding competitions.

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

We collaborated with the 4 FRC teams in our School District through the Bellevue Alliance, where teams in our district share ideas. We worked with UW HuskyAdapt for outreach. We also received donations from major companies such as Microsoft, Expedia, and donations in cash and kind from Dunn Lumber, TAP Plastics, Bezos Foundation, OSPI, Microsoft Alumni Network and Bellevue Schools Foundation. Because of these grants we were able to purchase new equipment, such as new laptops and robot supplies.

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

We are open to all students of our school with scholarships available for those who cannot pay club dues. We have partnered with HuskyAdapt, a group formed with the purpose of making accessible toys for children with disabilities. It was an amazing and rewarding experience for the team to learn about ways in which engineering is being used to make toys more accessible and enjoyable for children with disabilities. Our members also started targeted outreach to encourage girls to join our team.

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

Our team recognizes that retaining new members and maintaining community relationships is the best way to preserve our initiatives. Every first-year member helps plan and participates in the majority of our community events, which range from talking to sponsors to being the MC of our annual FLL qualifier. We believe that wholeheartedly accepting each member and immersing them in team traditions helps members to feel included and gain the experience needed to lead the team in the near future.

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

At Saints Robotics, we maintain positive relationships with our sponsors through consistent communication. We actively recruit mentors from Microsoft, Expedia and members of Microsoft Alumni Network because these companies and organizations donate volunteer matching funds. We also give our sponsors personalized thank-you cards and we have several relationships with local firms through our mentors.

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

Our outreach ideas are an area our team has to improve in because previously we were committed to attending local elementary STEM fairs. With the pandemic, those opportunities have disappeared and we have struggled with reaching the younger students. We did host free online summer and winter break camps for the students but would like to create a more engaging form of outreach to reach a broader audience. Our current plan is to start an FLL helpline or help session.

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

We have since our founding established strong relations with local students through various presentations and STEAM fairs, encouraging them to explore their STEAM interests. During the summer we adapted to COVID and took initiative by having our admin develop leadership training under the guidance of our mentors, which was then passed on to other leadership members. We also created the curriculum to teach coding skills in our online summer camp.

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.

One of the best parts about our student-led team is the family environment that we have created. Members are close with each other and are encouraged to explore their interests in a safe and accepting environment. We don't have strict boundaries between our subteams so members are free to experiment in new things and meet people in the team that

they otherwise may not have. Programming members, for example, are encouraged to partake in outreach events should they choose to.

Essay

Virtual meetings, online workspaces, long screen time hours, bad postures, and Zoom calls, all these befriend one thing: the pandemic. In the times of Covid-19 and social distancing Interlake Saints Robotics has still managed to keep itself together using pioneering strategies of networking and adaptability. We are a student-led team of 65 students guided by 15 mentors. Our team is organized into subteams of business, imagery, mechanical, control systems, and programming. Although a lot has changed, our fundamental core values have not. We have continued to empower and inspire students of all ages in our community to become involved in STEAM through supportive and spirited outreach events and competitions.

Two years ago Saints Robotics had the opportunity to attend the Houston World Championships for the first time since 2013. We were exposed to the best teams, missions, and values, which helped us realize how much more we could achieve and reinvigorated our ambition to strive higher. The main thing we learned was the importance of having cohesive and interconnected subteams. Simultaneously, we made sure every student felt comfortable expressing their opinions. Another key takeaway from Worlds was the need to expand outreach. While many teams were building networks worldwide, we decided to build a strong base by focusing on Bellevue's local community.

Before COVID we planned to have at least one outreach event a month following our theme of hyperlocality: aiding and educating members of our local community through STEAM. We planned to present our robot at all 18 of our elementary school STEM and 6 middle school Technology Nights. For students interested in the field of STEAM, these events show a path forward in STEM activities from elementary (FLL) through high school (FRC). Our primary goal was to introduce and inspire students to a potential future in STEAM. Then, the pandemic struck: we had only attended 6 elementary science fairs and 1 middle school Technology Night.

For the last 9 years, we ran a summer camp, Saints Engineering and Robotics Camp (SERC) to spread STEAM values to the community and introduce the larger world of FIRST to elementary students. In two 3-day sessions, participants were introduced to the basics of FLL, teamwork, and technical skills. In the last 2 years, we engaged with over 90 students in the SERC program.

For the last 5 years, we have also independently organized an FLL Qualifier to increase access to competitions in our local area. Furthermore, we held 3 FLL scrimmages, creating practice and judging opportunities for teams.

We also partnered with HuskyAdapt from the University of Washington to help make toys more adaptable for children with varying needs. We were especially interested in their program as we wanted to be inclusive of all members of our community.

In addition, we attended the Issaquah Salmon Days and Farmers Market to spread awareness about the FIRST organization and participation in STEAM. We also attended the GeekWire summit, which was an opportunity to represent FIRST and ourselves in a professional setting where we interacted with various business leaders and executives.

Although having an online workspace and not doing hands-on activities was a real difficulty, our team hasn't stopped striving towards creating an impact on our community. In early April as lockdown started, we quickly innovated and pioneered the ISOLE (Interlake Saints Online Learning Experience) virtual summer coding camp for 3rd to 5th grade students as an alternative for our in-person SERC. Through efficient and collaborative teamwork across all subteams, we swiftly developed the ISOLE camp which encouraged students to participate and learn about STEAM. There were 2 ISOLE camps: one in the summer and the other in winter. In the summer we offered 2 courses: Intro to Scratch and Advanced Scratch. However, we quickly realized that elementary students would be kept more engaged if we had a course with a hands-on program. Therefore in winter, we offered Intro to Scratch and Advanced Scratch and Beginning Engineering Concepts (ASBEC). In the future, we plan to offer all 3. ISOLE met 3 times a week and there were 2 sessions available: morning and afternoon. While the summer ISOLE camp was offered for free as an opportunity for engagement for elementary aged students, the winter camp was a fundraiser and we donated 20% of the proceeds to Backpack Meals for Kids. Team members designed and taught the entire curriculum of ISOLE, along with organizing, training teachers, and providing tech support. Over 600 hours were put into making this curriculum engaging and productive. Our main goal was to reach out to elementary school students to continue to provide them with opportunities to learn and attend camps even during these tough times. We had over 100 sign-ups over the two ISOLE camps. With motivated and committed team members we made ISOLE a fantastic opportunity that could be the basis for many children's introduction to STEAM.

We are expanding our knowledge and fostering connections outside our team through our very own new podcast: Robotics Assemble! Our interviews with esteemed members of the robotics community such as FIRST WA's Kevin Ross and Adrienne Rime along with different FRC teams such as 568 Nerds of The North from Alaska and 1690 Orbit from Israel, and our own club alumni who have allowed us to learn and grow from their valuable advice and learn more about the history of robotics. Our 12 podcast episodes have over 1500 views from 36 countries on Youtube. As we continue to develop the podcast, we look forward to increasing the listener base and working with more members of the FIRST community. Sharing our experiences has helped us build strong connections with robot enthusiasts.

Essay - page 2

Saints Robotics has been part of the Bellevue Alliance (BA), a coalition of 5 FRC teams in the Bellevue School District. The BA meets biweekly, with 2-3 representatives from each team talking about what their teams are doing, discussing challenges, giving each other feedback, and organizing joint settings when needed. For example, we had brainstorming sessions for challenges (Game design) and leadership training sessions to exchange knowledge and ideas. As a part of the BA, we hosted the PNW FRC meeting in December 2020 where we had breakout rooms with members of each subteam discussing build season planning, equity, diversity, and inclusion. This was an excellent event for communicating and collaborating with other teams across the PNW district. This reflected FIRST's core values of coopertition since even as competitors, we collaborated on ideas together as well as shared perspectives about competition.

Even though we haven't been in-person since March 7th, 2020, Saints Robotics collectively took this pandemic in stride and still created cherished memories. We stayed together as a family and haven't stopped striving towards our goals. Within the first few weeks we quickly switched to virtual meetings, every Monday and Friday, which included preparation for the next year, possible outreach ideas, team building activities, and much more. Despite tough conditions and not being able to do hands-on activities with the robot, members of our club have taken the initiative to build and plan virtual projects like ISOLE and the podcast. Pre-Covid, we used to host potluck dinners for team members and their families every Friday during build season as we are not just a robotics team but also a community and a family. Even as we could not hold in-person potlucks with the "Stay Home, Stay Safe" guidelines, we still had a fun virtual Secret Santa, exchanging gifts with our fellow teammates as a symbol of joy and friendship. Online games during summer break also helped maintain engagement. Bonding within our team and being one big collective family has been one of our core values.

Looking into the future, we want to improve our online presence through our social media platforms, showing the world around us who we are and what we do. Our podcast, Instagram, website, and team growth would make a huge impact by expanding our message. Letter-writing campaigns are also something that we are planning on executing in the near future. In this campaign, students, mentors, and families will be writing a meaningful message to a teacher that they want to express gratitude towards. Moreover, we are also planning on doing a weekly Sherwood Forest elementary homework help session as we know remote learning is challenging and we want to help these elementary schoolers stay on track and have the opportunity to seek help for subjects periodically. Going from having meetings in-person to social isolation has been challenging in many ways but we also want to keep doing our "one outreach event a month" goal which we had done in the 2019-2020 year, whether it is hosting more camps, virtual fundraisers, or overall more community bonding events. This year has been quite a journey, finding new ways to connect, learning from the current situations, as well as dealing with these tough times. We made new beginnings through projects like ISOLE and the podcast while also holding onto our team's core values of interdependence, creativity, empowerment, growth, inclusivity, family, and trust.