

Chairman's Award - Team 5275

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2021 - Team 5275

Team Number

5275

Team Nickname

T.I.M.E.-Bots

Team Location

New Prague, Minnesota - 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.

In the past three years, 83% of the alumni of the TIME Bots from New Prague, Minnesota have pursued careers in STEAM, 100% have graduated, and 89% of the current seniors plan to pursue careers in STEAM. Being on a FIRST team has also allowed the members to participate in real-world experiences from being mentored or being offered internships from companies like CVF Racing. These opportunities allow students to actively become more involved and prepared for their future careers.

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

Since the TIME Bots are based in a small town, it allows the team to be more connected with the community. The team participates in community events like Dozinky (New Prague's annual festival), the Scott and Le Sueur County Fairs, and elementary school showcases. Team 5275 is also involved in volunteering at science fairs and Camp Invention (run by The National Inventors Hall of Fame). However, since our community is small, it is more difficult for the team to spread STEAM on a larger scale.

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?

For the past three years, the TIME Bots have mentored students from ages 5 to 13 in activities using STEAM through the organization, Camp Invention. The team has also reached out to local leaders and groups, for example, Bob Vogel (former Minnesota House Representative) and the New Prague Rotary Club and Lion's Club. By actively reaching out in our community, we have gained new members who are interested in STEAM, and many members of the community expressed excitement about our accomplishments.

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

One of the most notable ways members of the TIME Bots have acted as role models in the community is at Camp Invention. Through this organization, team members can assist and mentor students in STEAM while also getting them excited to participate in FIRST. The females on the team also act as role models for girls who are interested in STEAM. By showing the younger students their capabilities, they become more excited to participate in teams like FLL, FTC, and FRC.

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

For the past three years, the TIME Bots have been working towards starting up an FLL team. Although there were many interested kids, finding a coach became difficult. After three years of searching, a coach was finally found in the summer of 2020. With a new coach, the team was able to start and mentor two new FLL teams. Next year, team 5275 plans to double the amount of participation in FLL and continue to increase children getting involved in STEAM.

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 TIME Bots inspire young people in the community by showcasing the robots at elementary, middle, and high school events. A bigger event that the team has participated in for the past three years is Camp Invention. The team has seen a lot of the camp students show interest in joining *FIRST* and pursuing STEAM. This year, team 5275 has gotten two members who joined because of Camp Invention, and at least four more plan to join in the next two years.

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

In the past 3 years, the TIME Bots have developed notably stronger relationships with both the New Prague High School and the Rotary Club. With the change in principals, the high school has become more involved in helping the team promote STEAM by providing funding for competitions and helping team 5275 advertise STEAM throughout the school district. The Rotary Club has also partnered with the team to donate fruit to our local food shelf, the Peace Center.

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

The TIME Bots come from a school of around 1200 students with less than 5% being minorities, and the diversity of the team matches. Team 5275--with around 28% of the team being female--has also previously struggled with inspiring females to join. The team has also elected the first female captain this year. That being said, this year the team has organized a Girl's STEAM Night, put up posters, and made videos to encourage and inspire more females to pursue STEAM in school and later in life.

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

In the past three years, the TIME Bots have done a lot to ensure the future members of the team are equipped; for example, the team has developed training videos, a safety manual, a business plan, a handbook, and many outreach opportunities. This year, team 5275 implemented new organizational tools such as Click-Up, G-Suite, and an engineering notebook. The team has also created a more effective sponsorship presentation so that upcoming members are prepared to maintain those relationships.

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

In the past three years, the TIME Bots have greatly improved and rewired the sponsorship strategies with the implementation of a new sponsorship system, presentation, newsletter, and outreach method. With these efforts, the team has retained 2 of the major sponsors from previous years and has reached out to 10 new sponsors this past year. Since team 5275 and the potential sponsors have a more clear understanding of their relationship, much progress to recruit, retain, and engage has been made.

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

After conducting a survey, the TIME Bots have realized that improvements needed to be made in communication, deadlines, and organization. With this information, the team has implemented many tools like Click-Up and G-Suite. Click-Up has allowed team 5275 to communicate tasks and deadlines, and the G-Suite has allowed the better organization of team documents and files. These programs, along with Discord, have shown to be effective in improving these previous trouble areas.

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

Inspiration is a key term in both *FIRST*'s and the TIME Bots' mission statements and is a prominent goal of the team. Although the main reason for building the robot each year is to compete, it is also built to inspire young people to pursue STEAM by showing what kids like them are capable of. That is why team 5275 showcases the robot and the team in many events, such as Camp Invention, during elementary, middle, and high school events, and at community gatherings.

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.

About 35% of the members on the TIME Bots are seniors which means many members of the team will be leaving. This has become a more prominent threat to the team; as a result, team 5275 has had to come up with new ways to recruit. In the past two years, the team has created recruitment videos, hung posters around the schools, and promoted the team

at many outreach events. This year, member recruitment has increased by 50%, and the team will continue to improve member enrollment.

Essay

Team 5275, TIME Bots, based in the small town of New Prague, Minnesota, started in 2013 with seven members. Going into our seventh year, we now have twenty-five students. In these seven years of existence, we have come up with five core values that define us as a team: synergy, perseverance, adaptability, community, and enjoyment.

Synergy, our first core value, explains how the members of the TIME Bots combine each of our unique individual talents and efforts to achieve the goals of our team. This includes choosing the right people to work together to lead the team and each subteam within it--CAD (computer-aided design), controls, mechanical, sponsorship, outreach, and safety. The synergy between our leaders allows the TIME Bots to thrive as a whole, but it also encourages each member to improve with what they can bring to the team.

With twenty-five members and two active mentors on team 5275, we cannot have success without collaboration. The TIME Bots have grown and continue to grow since our rookie year back in 2013 when we had only seven members, and this can make it more difficult for everyone to be heard. In 2017, the TIME Bots experienced a large growth in members that nearly doubled the total number of students on the team. This created a challenge that affected our team's synergy. Instead of having to communicate between ten to twelve people, we had to learn how to communicate with up to twenty-five people. However, as the years went on, the team has implemented many new ways of increasing our synergy. For example, we have recently started using Click-Up, a task management software, which helps us more easily collaborate on certain tasks. We have also developed a more structured meeting pattern that encourages participation from everyone in both large and small group settings. And finally, we have begun to hold lead meetings, so the leads can communicate what needs to get done and how we can work together to make deadlines and achieve goals.

Perseverance, our second core value, represents how we, as a team, persist through challenges to accomplish our goals. These challenges include any weaknesses we may have or any threats we may come across; however, our team continues to persevere despite any challenges that may come.

Besides Covid-19, one of our biggest challenges in achieving the mission of our team--to build a better community by engaging students in activities using STEAM, while also promoting valuable life skills to encourage today's youth to become tomorrow's leaders--was setting up a First Lego League (FLL) team. We first had the idea of starting up this team in 2018; however, many obstacles prevented us from reaching our goal, the main one being our lack of a coach. We did everything we could to find one, for example, creating Facebook posts, asking parents whose kids participated in Camp Invention, asking team members to tell anyone they knew about the position, and asking many teachers from the New Prague school district. Unfortunately, none of these tactics worked, and the pandemic in early 2020 hindered our ability to progress even further. Despite these struggles, we continued to advertise the position.

Finally, after two years of trying to find a coach, we received an email from someone interested in coaching our team. Although finding a coach was a lengthy process, our perseverance and continuous efforts paid off, and now we have two FLL teams with kids filled with excitement to participate in STEAM.

Our third core value, adaptability, shows how we adjust to unforeseen circumstances and learn from any mistakes we make. This means adapting when a robot fails to do the required tasks or adjusting how our team runs if it turns out the team works inefficiently. This has been a major theme of how our team operates, and we always need to adapt because we never know when certain circumstances that require change arise.

The resignation of our coach in 2018 forced us to adapt to the change of new leadership. We used to hold our meetings at his classroom and shop at the middle school, so when he stepped down from his position with the team, we became temporarily homeless. Not being able to participate in the next robotics season scared a lot of team members; however, this fear of missing out on FIRST encouraged the students to reach out to teachers and members of the community looking for a coach. Luckily, a previous mentor of the team, Mr. Dan Cross, took the job of being our coach. Although the news of our new coach gave us hope, the challenge did not end. The location of our workspace became the biggest obstacle. We decided to ask the industrial arts teachers at New Prague Senior High if they would be willing to let us work there. Thankfully, a few of the shop teachers allowed us to make their shops into our new base of operations after school. With the main two issues out of the way, we seemed ready to start our new season; however, challenges still arose. Many adaptations had to be made, for example, finding new members, recreating our team structure, creating a new handbook and business plan, and figuring out whom we want to be as a team. With the change in leadership, operations went a little differently, and we needed to adapt to the situation to be able to succeed. It has been two years, and although we made tremendous progress, we still adapt even today. New issues can always come up, and being able to adjust to new challenges is necessary for success.

Our fourth core value, community, means engaging with our community to provide STEAM education and to look to them for their support. This includes reaching out to sponsors and supporters as well as showcasing STEAM at elementary schools and town gatherings. It can also mean collaborating with our school and volunteering with local businesses. Because living in a small town allows us to become closer, we have had many opportunities to reach out and give or receive help from our community.

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As a team, the TIME Bots love to reach out to members of our community and promote STEAM. For example, we participate in our local branch of Camp Invention: we showcase our robot at the elementary schools; we volunteer with businesses like Pizza Ranch, Coborn's, Canterbury Park, and Elko Speedway; and we give presentations to potential supporters like our local Rotary Club, Lion's Club, and School Board to get them excited to participate in spreading the love of STEAM. Most recently, we held a fruit fundraiser, and the president of the Rotary Club contacted us about donating some of our fruit via our robot to the local Peace Center, New Prague's food shelf. We accepted, and a few of our team members went up to deliver the fruit. Not only did we help the Peace Center, but we also promoted STEAM. We could see the excitement on everyone's faces as we drove the robot up to the front door, and someone from the Peace Center exclaimed that she had never had a donation delivered by a robot. We always strive to bring excitement to the community.

Not only have we enjoyed helping the members of our community, but we are also grateful for how they have helped us. Community Education has helped us by advertising and helping us set up our first FLL teams. Our sponsors have supported us by donating money and resources and by providing internships for our members. Additionally, our school has helped us by providing money for competitions, promoting robotics in the schools, and allowing us to work at the high school. A strong relationship with our community has importance within our team, and without them, it would be difficult to succeed.

Our final core value is simple: enjoyment. We want to make sure everyone enjoys everything they do; we want to make robotics as enjoyable for them as possible. By doing this, it encourages students to pursue careers in STEAM and better our world. If they enjoy what they do, they will continue it, and we do not want to deter anyone from participating in something they love.

Because of the size of our team, we are a family. This setting allows us to be ourselves and enjoy robotics how we want to enjoy it. In 2020, our team registered for the Northern Lights competition in Duluth. Being four hours away, we had to stay overnight in Duluth for our competition. Spending the weekend together allowed us to bond as a team; for example, we shared meals, went on walks to the lighthouse, and cheered for our robot together--like a family. Filled with energy on the bus ride home, we decided to sing karaoke songs which quickly escalated to writing a song for our seniors. Although our voices became hoarse from cheering for our team, we sang the whole four hours home. We got a few 'interesting' looks from some of the mentors; however, we bonded as a team. We have always enjoyed working in STEAM, but that weekend, we were part of a team. Getting an already interested person to enjoy STEAM is easy, but getting someone to enjoy coming to meetings each day and participating as a member of a team makes the experience special.

Our core values--synergy, perseverance, adaptability, community, and enjoyment--have shaped who we are as a team, and they continue to lead us down a path to success.