2013 Chairman's Award

FIRST Team 68, Truck Town Thunder, Executive Summary

Briefly describe the impact of the FIRST program on team participants with special emphasis on the 2012/2013 year and the preceding two years.

Students on T3 learn the importance of gracious professionalism, teamwork, time management, and leadership skills, they also advocate to achieve a higher "self-standard." By setting these higher standards for ourselves, graduating seniors of the past two years are attending the college of their choice with scholarships totaling $416,000. Our 2013 seniors have already been offered $116,000, with more expected.

Example of role model characteristics for other teams to emulate

As a veteran team, we promote gracious professionalism, sustainability, passion, and dedication. Students maintain gracious professionalism by helping other teams while dedicating themselves to achieve success. On T3, dedication implies we complete our tasks in a timely manner, even if that means work outside of the regular meeting. The students' time, dedication and passion have kept the team sustainable, especially through our move from GM's Pontiac Truck Plant to Brandon High School in 2009.

Describe the impact of the FIRST program on your team and community with special emphasis on the 2011/2012 year and the preceding two years.

T3 has immersed themselves in the community through multiple events and organizations. This year, T3 has started 11 robotics related teams, held their 3rd annual Lego Camp, and 7th Jr. FLL expo. All students are also required to complete at least 20 community service hours; students on the team have served over 1000 hours of community service hours since 2011. T3 is integrated in the schools via participation in homecoming parades, pep assemblies, activity fairs, and working at sporting events.

Team's innovative methods to spread the FIRST message

Last year, T3 participated in two rather unique events. We helped Cub Scouts and Boy Scouts earn their robotics merit badge by helping them build Lego NXT robots. T3 also participated in a demo at a 4-H Explorathon, where over 100 people were able to drive our robot. Our T3 Advisor has implemented a successful 4-year STEM program in Brandon High School. This fall, T3 assisted a local business by holding a scrap-metal drive and cleaning up the environment.

Describe the strength of your partnership with special emphasis on the 2012/ 2013 year and the preceding two years.

T3 has many partnerships with different organizations in our community, plus strong relationships within the team. Our most important relationship is between Brandon and Holly High Schools, since students from both compose T3. T3 is organized into managerial and technical subteams with a hierarchy made up of advisors, mentors, and sub-team leaders. Outside of our team, team members have close relationships with personal and commercial businesses, creating better relationships.

Team's Communication Methods and Results

One team goal is to become more organized; we have been successful by increasing communication within the team. Along with informational emails, we have a mass text message system for reminders. The team is split into managerial and technical sub-teams so students will be more involved with team business. Sub-Team leaders keep track of their group's progress with engineering notebooks. We also use Google Drive, Google Calendar, and Facebook and Twitter to share information with the team.

Other matters of interest to the FIRST judges

Our team leader, Andrew Spiece, lives and breathes FIRST. He is the leader for Brandon Oakland County Competitive Robotics Team. At their banquet in December, the Brandon team won the Technical Excellence Award and Mr. Spiece was inducted into the Educator Hall of Fame. This past month, Mr. Spiece was also named Oakland County Teacher of the Week. Due to our spreading the word of FIRST and our team outreach, we have more technical sponsors and mentors than ever before.

Truck Town Thunder, Brandon and Holly High Schools, General Motors, Chairman's Essay 2013

This year is the 15th anniversary of Truck Town Thunder's (T3) existence. This is the 15th year that T3 is competing, inspiring and investing in the STEM fields, and the 15th year that 68 has been spreading the message of FIRST superfluously. This year, we are improving our team so we can be even more successful in spreading the message of FIRST and its ideals.

FIRST teaches us many life skills, such as the importance of time management, teamwork, and gracious professionalism. One of the most important things FIRST teaches us is how to become leaders and how to be open to other ideas other than our own. On 68, every student is given the opportunity to be a leader because every student should know the basics to successfuly lead. Throughout the build season, we mentor each other, then during competition season, these leaders step up to help teams besides our own. Students learn that competitions aren't meant solely for winning; they're an opportunity to come together with other teenagers that share the same passion as we do, and to create bonds with other teams, whether it's by helping them fix their robot, or by creating a game-winning strategy. Not only does FIRST teach us these skills, FIRST gives us experience working with machines in a professional environment. This experience is so valuable, not only do we get to learn from great engineers, we learn so much more by being handson, rather than sitting in a classroom listening to lectures.

Colleges and possible employers see the value of this, which gives FIRST students all over the country amazing scholarships and job opportunities. FIRST influences our team members to further their education and go to college. For some students, college is now an option because of the scholarships they were able to receive due to FIRST. All of the seniors that graduated from the team since 2009 are attending the college of their choice with scholarships totaling $416,000 in the past two years. Of our 2012 seniors, 87% went into engineering/ science majors and the other 13% went to school for the arts. Four of the team's 2012 seniors attend Kettering University with successful coops. This year's seniors have been offered $116,000 in scholarships so far.

Being a successful FIRST team for 15 years showcases our sustainability. Being around for 15 years is easier said than done; three years ago, General Motors was forced to close the Pontiac truck plant, due to budget cuts. At first, the number of students on the team was low, but as STEM became popular, so did T3. Brandon High School became the new home of T3, where the team consists of students from Brandon and Holly High Schools. The number of students on the team has steadily increased since 2009 and so has the participation of girls. The team's increase in students is a result of current and past team members' passion and dedication to the team. Students on T3 love what they do; all winter and into spring, FIRST is our life. After the World Championship, we don't stop promoting FIRST. We go back home and keep demonstrating our robot and giving presentations to potential sponsors for next year. We also compete in multiple off-season events. Last season we participated in three off-season events, and won two of them.

One of Truck Town Thunder's requirements is all students must complete at least 20 hours of community service every season, although most students go beyond this requirement. This has opened the students' eyes to the many ways they can give back to the community. T3 is a part of many service programs, including The Desert Angel, Adopt-A-Road, and Relay for Life. The last two years, T3 created and ran a Haunted Barn to help raise funds for Holly's OCCRA (Oakland County Competitive Robotics Association) team and Holly Parks and Recreation. T3 has also been getting students of all ages excited about STEM by starting 1 FRC team, 1 FTC team, 3 FLL teams, 1 Jr. FLL team, and 4 VEX teams. This year, 68 hosted our 3rd annual Truck Town's Thundering Lego Camp and hosted our 7th Annual Jr. FLL Expo.

T3 has also immersed themselves in the schools by hosting demos at the middle school, introducing high school students to robotics at the annual activity fair by giving tours of our shop and letting students drive our competition robot. We also participate in homecoming parades/ pep assemblies, running concession stands at football games, and selling raffle tickets at basketball games. Both Brandon and Holly High Schools have OCCRA teams, which give students a more laid back, less time consuming experience, similar to that of FIRST.

This year, students on T3 helped the Boy Scouts of America earn their robotics merit badge. This was an organized one day event where our students guided Boy Scouts, helping them to build a Lego NXT robot. The Boy Scouts and team members saw the DaVinci Robot, which is a robot that performs small operations on people, in action at the Henry Ford Hospital. Last spring, T3 demoed their robot at the 4H Science Explorathon. This was an event intended

to get children and teens interested in science. At the Explorathon, over 100 people drove our robot, ranging in age from 3 to 86.

A crucial part of T3 is our partnerships. We partner with the schools, the community, the students on the team, and our parents. Our most important partnership is with the schools. T3 is made up of students from both Brandon and Holly High Schools. Our team facilities are all located at Brandon High School. Our team leader is a math and technology teacher at Brandon, and both Brandon and Holly have another teacher that mentors the team. Our communities are a big partnership because they help sponsor us. Each student must fundraise at least $200 every year, and many students do fundraising dinners at local restaurants or ask businesses to sponsor the team. At a demo last year, Beth Nuccio, Oakland County Commissioner, was so impressed by our robot that she became a team sponsor.

Cooperation of students' parents is also vital to the team. Our parents are very helpful throughout the build season. Each parent prepares at least one meal for the whole team during build season. Our parents also drive the team to events, help mentor us, and come support us at competitions.

The students maintain a strong partnership to the team as well as each other; we have to communicate with each other and work together in order to be successful. This year and last, the whole team went to a teambuilding camp in October. The Basecamp had multiple different activities, all of which required students to plan out a strategy, communicate, and work against the clock. These activities were good preparation for build season and a way to break the ice between new and returning students so we get to know each other, learn our strengths and weaknesses, and we learn to work together to reach a common goal.

As a team, we learned that we need to enhance communication in order to reduce confusion and increase organization. Our whole team meets at the beginning and end of meetings to discuss that day's agenda, answer any questions, talk about upcoming events, and subteams give formal presentations on their group's progress for the week. These meetings are great to keep everybody on the same page.

Our advisory board came up with a few new ideas that we're implementing this year. Our first change is the way we organize our subteams. Instead of each student being in one subteam, every student is on a managerial and a technical subteam. By every student being on two subteams, they get the opportunity to explore all aspects of the FIRST build season. Each subteam in both categories has a hierarchy. There is a student subteam leader, who ensures all work is being completed, answers questions, guides the students, and helps with the job. A mentor is assigned to each subteam to answer questions the subteam leader has. Furthest up, an advisor who is the "top dog" of that group that knows their group's needs inside and out. This hierarchy helps organize communication for each subteam, which will help communication for the whole team.

To help with organization, each student owns an engineering notebook, where they record their projects, progress, sketches, questions, and speedbumps they run into. Each subteam leader has a special notebook and binder that has all progress for their subteam, which the adults refer to, when needed. We also have a communication log for the team, which is an excel sheet with a page for each subteam where the subteam leaders communicate with their mentor, advisor, or team leader when they are working on their tasks outside of team meetings. Along with our new communication methods, we still use our simple oldschool methods as well. On our team website we update our team calendar with dates, times, and descriptions for team events and due dates. We set up mass email and text messages set up for the team. Mass emails are usually sent out weekly, with upcoming events, any team news, and that week's progress. Mass text messages are sent as reminders to the students for anything from grade checks being due to what time we have to meet before we leave for a competition. The team also has a Facebook page, where we publicize team events and milestones, while networking with FIRST participants and enthusiasts. For interteam communication, the students and adults stay connected with a Google Plus Circle, and the mentors have a Google Plus Circle for team decisions.2013 is the 15th anniversary of T3's existence. Since it's birth, we have been inspiring students in the STEM fields, as well as spreading the message of FIRST. We do this by reaching out to the community with multiple service organizations, through the schools, and increasing team communication to be more successful overall.