

Chairman's Award - Team 3044

[Print](#)[Close](#)**2019 - Team 3044****Team Number****3044****Team Name, Corporate/University Sponsors**

Ballston Spa National Bank/Bechtel/GLOBALFOUNDRIES/Town of Malta Community Foundation/Malta Business & Professional Association/Technical Building Services/CSArch/Ballston Spa Education Foundation/Union Fire Company/TCT Federal Credit Union & Ballston Spa Senior High School

Briefly describe the impact of the *FIRST* program on team participants with special emphasis on the 2018/2019 year and the preceding two to five years

7 seniors graduate this year and all are going to attend college, pursuing STEM careers. 100% of team members graduate and continue developing skills in college. Overall 95% of alumni pursuing STEM careers with over \$1M in scholarships including FIRST sponsored. 30 alumni return to mentor and 9 out of 10 of graduating seniors return during holiday breaks to mentor. 70% of the 14 returning alumni are female.

Describe the impact of the *FIRST* program on your community with special emphasis on the 2018/2019 year and the preceding two to five years

In 2 years we have collected and sent over 2800 items to actively deployed military overseas. We provided school supplies to 102 students this year alone in our 3rd school supply drive. For 3 years we have volunteered at Scotties Closet impacting over 2000 people. We have collected cloth diapers to send to Haiti. We have run a food drive for 3 years benefitting Scotties Pantry which provides food to students. We have volunteered at our library, firehouse, and science and engineering fairs.

Team's innovative or creative method to spread the *FIRST* message

We have created and distributed FLL Summer Camp, FLL, and FTC curriculum for use in English, Pashto, and Dari. We demo our robot at our sponsor's and local community events including Malta Community Day, Taste of Malta, GLOBALFOUNDRIES MFG day, the Burnt Hills FLL Jr. expo, the Albany Back to School Expo, and NYS Business Council. We also invite our FLL and FTC teams to walk with us in our Homecoming Parade in town, so everyone can see the growth of our family across the district.

Describe examples of how your team members act as role models and inspire other *FIRST* team members to emulate

Our members mentor all FLL and FTC teams and encourage these students to work with each other so they can learn the benefits of mentorship. We invite our FTC teams to volunteer with us to promote giving back at all levels. We have integrated pre-rookies into our team during offseasons and commit to mentoring them from their rookie year forward to create consistency and a sustainable foundation. We invite other teams to work in our school workshop and help them as well as share our growth plan.

Describe the team's initiatives to help start or form other FRC teams

We have trained teams 6484 and 7651 to drive our robot to compete in our offseason Robot Rumble as pre-rookies to help them gain interest and knowledge about FIRST. We mentor both in our workshop and invite them to scout with us at regionals, and provide all of our design, strategy, and business materials so that they can have resources to establish their own sustainable foundation. We have spoken with parents and district officials in Burnt Hills to work to expand their program to FRC.

Describe the team's initiatives to help start or form other *FIRST* teams (including Jr.FLL, FLL, & FTC)

We have started and sponsored all FLL and FTC teams in Ballston Spa. This year we had 5 FLL and 2 FTC teams. We started an FLL Jr. team in Ireland and sent LEGO Mindstorms kits and modelled building techniques to children in Afghanistan to work to establish an FLL team there. We provide support via calls and lesson plans to both areas. We ran our 6th annual FLL summer camp that helps introduce students to FLL. We are creating instructional videos to integrate robotics into 4th grade classrooms.

Describe the team's initiatives on assisting other *FIRST* teams (including Jr.FLL, FLL, FTC, & FRC) with progressing through the *FIRST* program

We have run an FLL Jr. exhibition for 5 years, an FLL tournament for 5 years, and FRC offseason Tech Valley Robot Rumble for 5 years. At these events we invite teams to tour our workshop, provide mentorship, and exhibit how we have created a FIRST pipeline in order to encourage other areas to create FIRST teams. We share our FIRST curriculum around the world to promote growth. Since establishing our summer camps and FLL and FTC teams, 3044 students and alumni have grown up in our FIRST family.

Describe how your team works with other *FIRST* teams to serve as mentors to younger or less experienced *FIRST* teams (includes Jr.FLL, FLL, FTC, & FRC teams)

We mentor our FLL Jr. team in Ireland, mentored 2 FLL Jr. teams at Brown School in Schenectady and mentor their rookie FLL team. All FRC members mentored afterschool and ran Saturday meetings for our 5 FLL teams. We mentored our 2 FTC teams both afterschool and during FRC meetings. We provide lessons, and building, programming and strategy help to these teams. This year we have helped FRC 7651 design and build their robot, and have provided our materials and build space. We also mentor FRC 6484.

Describe your Corporate/University Sponsors

Corporate Sponsors are invested and proud to be affiliated with Team 3044. Our unique partnership with BSCSD has provided financial support, created curriculum, hired teachers, and offered classes that support FIRST. BSNB is an original and sustaining sponsor who provides financial support. Bechtel, GE, and GLOBALFOUNDRIES have provided mentors, financial support, internships and employment. PVA has helped us with fabricating some parts we weren't able to make with our in-house machines.

Describe the strength of your partnership with your sponsors with special emphasis on the 2018/2019 year and the preceding two to five years

We attend and demo our robot at special events held by our sponsors. Our sponsors provide meeting space, resources, leadership training, mentors' and internship opportunities. BSNB invests in our future and proudly displays it in their banks and their website. We invite sponsors to our workshop and engage with them on social media. 9 of our alumni have been offered internships and full time employment with our sponsors. Our sponsors also provide mentorship.

Describe how your team would explain what *FIRST* is to someone who has never heard of it

FIRST is a family that provides not only hands on STEM education, but the ability to connect with students and your community. A FIRST team serves as a place to call home and is grounded in the principles of mentorship, community service, and teamwork.

Briefly describe other matters of interest to the *FIRST* judges, if any

As financial difficulties grow within our district and with the loss of a major sponsor this year, we have been able to sustain and continue to sponsor and mentor our FRC, FTC, and FLL programs due to the establishment of a strong foundation through our community outreach, fundraising, and commitment to work with our district and sponsors. We have also been able to take on sponsorship of a middle school rocket team. Our team is over 75% freshman and sophomores. We created a STEAM varsity letter.

Team Captain/Student Representative that has double-checked this submission.

Stephen Gingersky

Essay

Who's in the house? The Ox is in the house! Welcome to our house in Ballston Spa, NY. Home of Team 3044, our 30 students have worked to build a sustainable foundation that prides itself on community service and the growth of access to STEM education in our community and beyond.

We strive to give all students in our district the opportunity to be involved in FIRST programs. In a district with 4,100 students, 37% of our student population is eligible to receive free and reduced lunch and are considered in financial hardship. By creating a strong foundation in FRC, we have been able to expand our house and our family to reach more students every year. Through starting, mentoring, and fundraising for all FIRST teams in our district, we are ensuring that from elementary school to high school we are giving our students a place to call home with no cost to students. Our house has grown to include 100 students across all levels of FIRST within our district.

0xBE4 has run a 1 week FLL summer camp for 6 years involving a total of 180 students in grades 3-5, including current 3044 students and alumni. Our students have developed curriculum with detailed lesson plans and teach students how to build and program EV3 robots while working in teams to complete FLL missions.

We have started, sponsored, and mentored all FLL teams in our district. We began with 3 FLL teams, and have grown to have between 5-7 teams each year for a total of 74 teams over 11 years. Our students travel to our elementary schools after school to attend their meetings and help them with their build, programming, strategy, and project development. Our team runs "FLL Saturdays" where all teams are invited to work one on one with our students. We teach mini-lessons and help teams test and debug missions on the mission table. Most importantly, we encourage collaboration by pairing students from different teams together and helping them to overcome similar challenges together by sharing their ideas and their successes.

0xBE4 started FTC 6945 6 years ago and to provide additional opportunities to students, we created FTC 12780 2 years ago, which runs as an FTC class in the high school. We sponsor, mentor, and share our workshop with both teams. Our students attend after-school meetings to provide building and programming assistance, as well as mentor during our weekly FRC meetings, that FTC also attends so that we can provide additional resources and begin to integrate students in to our FRC program. When the FTC season concludes, we invite those students to shadow current members to gain experience.

Our team is proud to have such a strong FLL and FTC presence and believe that it is a step towards developing and sustaining our family. To help other districts develop their programs we have provided published resources in the form of curriculum for our FLL summer camp, FLL, and FTC programs that is available on our website. We have worked to detail introductory lessons and outlines of the programs, as well as including helpful tips to start and sustain these programs. We are lucky to have a strong presence of FIRST in our community and we are working to help other areas to sustain and grow their programs, with a focus on assisting teams in rural areas where resources are limited.

In 2017, we started and have since mentored an FLL Jr. team in Ballylanders, Ireland, a rural farming community with limited access to afterschool programs. The team has expanded to include students from rural communities in Galway and Kilkenny. For 5 years we have run an FLL Jr. exhibition where we volunteer and have interactive activities with our team members such as coloring and dancing. Additionally, for 3 years we have attended the Burnt Hills FLL Jr. Exhibition to demo our robot to students from 59 teams to inspire interest in FIRST. We are working with district officials and parents in hopes of expanding FIRST in their district. Last year, we mentored 2 FLL Jr. teams from Brown School in Schenectady, and they have since expanded their program to include an FLL team.

This year, our team provided our FLL curriculum to the Brown School program, mentored the FLL team, and invited them to our FLL Saturdays. For 5 years we have run an FLL tournament where every 3044 member volunteers. Our students volunteer in roles including judges, referees, MCs, and DJs. We also invite our FTC teams to volunteer at the event where they escort teams and keep them on schedule.

Last year we expanded our family by conducting a LEGO Mindstorms donation drive and sending the kits to Afghanistan. Facebook Messenger allowed our team members to communicate and model building techniques with Afghan children who were inspired by the Afghan girls robotics team that competed in the FIRST global competition. We also made our FLL Summer camp curriculum available in Pashto and Dari for them to use.

Our primary goal in mentoring FRC teams is to help them build a strong foundation in their own community that allows their program to thrive for years to come. We are currently mentoring teams 7651 and 6484 for a combined total of 4 years. We invited 7651 to the local practice field so that they could learn to drive our robot and included them as members of our drive team at Robot Rumble where they drove our robot and were able to experience the feeling of a competition. We have shared our build space with 7651 and have helped them with the design and fabrication of their robot, as well as providing all of our documentation for our technical, strategy, business and media subsystems. In 6484's rookie year, we trained their students how to drive our competition robot which they competed with during Robot Rumble, as well as provided design and strategy training. Since then, we have been working with them to develop their sustainability. For example, 2 years ago, 6484 scouted with us at competition, but last year we presented scouting materials to help them develop their own program. We previously mentored 5964 for 4 years and this year are assisting them. Since many teams in our area struggle with workshop space and resources, we have opened our machine shop to 8 local teams and have shared our code repository with 4 teams, to give them our code and the ability to work with our programming students. We also invited all local teams to use our VR room for kickoff and the build season.

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For 5 years, 0xBE4 has run and hosted the annual offseason Tech Valley Robot Rumble. Our team members help setup and takedown the field and the pits, help teams load in and out, and volunteer at the food drive table. During the competition, we open up our machine shop and offer to fabricate replacement parts. If only for the day, all of the teams are part of our family.

3044 also encourages engagement in STEM in both our elementary and middle school. For 4 years we have run a Code-A-Thon for grades 2-6, impacting over 400 students. We teach lessons on how to code in Scratch and have interactive activities for the students to try what they have learned. This year, our team has sponsored and mentored a new Team America Rocketry Challenge team in our middle school. We have given workshops on the design process and helped them with the design and testing of their rocket. Our students are creating instructional video tutorials for 4th grade teachers and their students in our district to use for integrating REV robotics kits in the classroom. By continuing to integrate robotics in to the classroom, we are able to engage more students in hands on STEM education.

3044 believes that it is important to not only provide somewhere to call home for our students but to provide support for everyone in our district when they leave at the end of the school day. We created a Scotties School Supply Drive and for 3 years have been collecting new and gently used supplies to give to students who may not have access to school supplies. This year, we were able to provide 102 students with school supplies. For 3 years, we have volunteered for the Scotties Closet initiative, which collects new and gently used clothing, and gives families facing difficulties the opportunity to "shop" for new clothes for free. Our students donate clothes, set up clothes racks, and organize clothes. This event has served over 2000 individuals in our community. Our school created the Scotties Pantry initiative that helps provide food to students that have limited access to food supplies to sustain them over breaks and holidays. For 3 years, our team has held food drives to collect food benefitting this initiative.

Like any family, ours combines people from all walks of life. Our team serves as a home to those in the military, having students and mentors with active duty and retired military family members as well as alumni and mentors who are active duty or retired. Team 3044 prides itself in serving those who have sacrificed and served in our nation's military. We created the Stars for Heroes program that collects goods to send to servicemen and women deployed overseas. This year we collected over 1000 items, totaling over 2800 items collected in the past 2 years.

Our efforts would not be possible without the continued support from our sponsors and our school district. Since our inception in 2008, we have been fortunate to retain 3 original sponsors: Ballston Spa National Bank, SSP, and CSArch, which have provided us with help each year. We invite our sponsors to come to our meetings, frequently update our social media to engage with them, and send them thank you cards for everything they do.

Our alumni network has grown to a total of 80, with our alumni consistently returning to mentor our team. They also volunteer at FRC and FLL events and mentor teams in their new homes. Due to our close relationships with our sponsors and alumni, 10 alumni have found internships and full-time jobs with 4 of our sponsors.