The fields of science, technology, engineering, and mathematics (STEM) are vital. . The continued growth of STEM fields is necessary in order to continue improving the world. This is why FIRST is necessary; the program encourages the growth of STEM by inspiring young people to pursue fields in STEM, encouraging them to find and follow their passions. Through this they will leave a positive impact on the world with their creativity and innovations. FIRST Team 342: The Burning Magnetos fully embodies this idea; the team's mission and motto is to "Take the message farther!" 342 seeks to spread this message to as many people as possible through our activities in the local and global communities. Moreover, we have expanded our vision by seeking to instill a passion so strong that they will in turn inspire others.

The Team was founded in 1999 and the team consisted of thirteen high schools. Most of the high schools that were apart of the team were apart of Dorchester District 2. Some of the high schools included into Team 342 were: Fort Dorchester (FDHS), Summerville high school (SHS), and Ashley Ridge (ARHS). We have always supported the local FLL teams. The kids that we help in the FLL are the feeding pool for our FRC program. In the 2017-18 school year we started a new FLL JR team at the local elementary school, Eagles Nest Elementary school. We mentor the kids in the use of water and the FIRST program. As the team grew, we had seen how FIRST positively impacted the students and our local community. 75%+ of students on the team go into STEM related careers. Through our strong partnership with Bosch, LLC, several of our alumini go into the Bosch apprenticeship program in South Carolina and later worked for Bosch for full time. Some even have come back to mentor our team (342).

Since 2010, our team has contributed to the formation of 8 FIRST FRC teams: 3475, 3489, 3490, 4083, 4243, 4261, 4533, and 4748. 342 was able to assists these teams by providing mentoring, training, supplies and funding support and helping troubleshoot. In this environment, both teams' members and mentors collaborate and share knowledge. This especially shows rookie FIRST Teams gracious professionalism in action, a skill they will soon learn and emulate. Team 342 also supports other FRC teams at competitions in the spirit of co-opertition and gracious professionalism by helping repair robots, giving parts, lending tools, and aiding in strategy.

We are actively involved in 2 FLL teams and 1 FLL Jr team. We help mentor and give support to these teams. We attend every work session every week. We hold the FLL/ FLL Jr meetings twice a week. With these meetings it allows them to develop their critical thinking through research, design, and build aspects of the program, teahing them the core values of Gracious Professionalism and Co-Opertition. We help plant the seeds for the future involvement in FRC and success in STEM. These teams are very important to us because they are the future leaders of communities and for the FRC teams. We get to watch them grow and learn the different benefits of STEM and FIRST.

Team 342 promotes awareness and the importance of STEM and FIRST throughout the community at every opportunity. During the 2016-17 season we brought our robot, Burnie, over to a local library in the community to spread the word of FIRST and STEM. We showed them our robot for the season and let them learn the different aspects of STEM and robotics.

We have a great relationship with all of our sponsors. The biggest sponsors that we have are Bosch and Spawar and our school, Fort Dorchester High School. Our school has given us 4,000 sq. ft. in our schools engineering wing. Each subteam of our team has their own space to work.

We also have a big workshop for our mechanical subteam. Our team has our own small practice field. With our room being in the school's engineering hallway we are able to integrate FIRST and FRC into every day school life. It is where not only FDHS students, but team members from different schools that dont have a robotics team or kids that are homeschooled could meet and continue working toward the ultimate goal of a career in STEM. With our room being in a school it is easier for students that dont have a ride to meet here rather than trying to finding a ride to Bosch.

Both Bosch and DD2 see great value in having this room and transforming it into a "STEM Room" because it promotes science and technology in the school and district. Our room is always kept safe and clean. After every meeting we clean the room thoroughly and while we are building we make everything as safe as possible. Every student has their own pair of safety glasses and knows where the spare glasses are kept. Every student is taught the safety manual and is taught what to do during an emergency.

In the 2012 season we were able to send 3 XO laptops with educational games developed during a Summer PyGames, as a pilot project in 2012. The laptops were a positive impact for their local school. We were able to accomplish this through a link with a volunteer in the US Peace Corps there. Our Team was able to send 10 more laptops, monitors, and additional hardware in August of 2013, with help from a large transportation company. Working together with their community leaders and the Peace Corp volunteer, we assisted in what was forming a community computer lab for adults and students. Due to the high demand, grants were acquired to buy more XO laptops and computer hardware in the summer of 2013. Team 342 and DD2 schools made a virtural classroom with four elementary schools in Port Victoria. Our Team has also sent plenty more computers that were decommisioned from the Palmetto Project's XO program. The students in Africa were able to learn more about math, science, reading, and writting skills though the laptops.

In our current season of 2017-18 we have been mentoring an FLL Jr. Team at a local elementary school. We are wanting to create more FLL Jr. teams in the future. We have a group of robotics students that goes over to the local elementary school twice a week for an hour. We mentor them on the use of water and the apsects of engineering. We have three little teams for the one team so that more students were able to participate. The kids seem to have a blast an they enjoy coming every day. We get to watch them grow and watch them get interested more and more into robotics and STEM.

In all, Team 342 has been very involved in the community and promoting STEM and FIRST.

“Take the message further!” screamed Team 342. It is this motto that has continued to drive our team’s vision of building long term partnerships between schools, businesses and industry professionals to inspire a passion for not only the FIRST program but for future leaders in STEM careers.

Science, technology, engineer, and mathematics (STEM) are all major roles in the field of robotics and FIRST. FIRST is necessary for the encouragement and growth of STEM by inspiring young people to pursue their passion in STEM related fields. This is why Team 342 works hard to make an impact in the communities of STEM and FIRST. The students of Team 342 fully embrace the ideals of FIRST and its positive impact in the community and hope to instill this passion and inspire many others.

FIRST Team 342, The Burning Magnetos, was founded in 1999 and has consisted of thirteen high schools. Since 2010, Team 342 has contributed to the formation of eight FIRST FRC teams: 3475, 3489, 3490, 4083, 4243, 4261, 4533, and 4748. Team 342 was able to assists these teams by providing mentoring, training, supplies and funding support and help with troubleshooting. Team 342 helps to support not only their FRC teams but other FRC teams at competitions in the spirit of gracious professionalism and co-operation. They achieve this by helping repair robots, lending tools and parts, and aiding in strategy. Congeniality is a major role in Team 342's values as well as FIRST; therefore, the team strongly encourages its students to practice this characteristic.

Team 342 fully embodies the idea of working together to "take the message further." The team motto hopes to expand the vision of FIRST's core values. They have worked to achieve this goal in the form of FIRST Lego League (FLL) and also FIRST Lego League Junior (FLL Jr.). FLL and FLL Jr. work to inspire younger kids from elementary school up to middle school to pursue and improve STEM and FIRST. These leagues help to create future alumni for FIRST Robotics Competition (FRC) program. Through the positive impact of FIRST more than 75% of students on FLL, FLL Jr., and Team 342 have felt inspired to continue in STEM related careers.

Team 342 is actively involved in the growth and development of FLL and FLL Jr. teams. Students help and mentor these teams in support meetings held twice a week. These meetings help to develop the critical thinking skills of the younger students through research, design, and the building aspects of the FIRST program. This program that our students work in plant seeds for the future involvement and improvement in FRC and success in STEM.

Chairman's Questions

1. What are some of the key values practiced on the team?
2. Why is FIRST important in your community?
3. How has the team impacted the community?
4. Who do you personally feel is impacted in a good way by the team?
5. How does FIRST inspire you?
6. How has FLL and FLL Jr. inspired the younger kids to continue on the path of FIRST and STEM?
7. What is the most successful thing accomplished in FLL and FLL Jr.?
8. How have you personally impacted the students on team 342?