

## FRC Team 1699 - The ROBOCATS- 2018 Chairman's Award Essay

The t-shirt screamed through the air, landing somewhere amongst the crowd. Success! The T-shirt cannon worked. What started off as an idea from students, expanded into something the whole community could witness and participate in. Our members' hard work, on the long Summer days, rewarded with a new way to expand the public's knowledge about science and technology. Proud of the response we got from the community, our student led team readied for the upcoming build season.

The team listened intently to the teachings of our mentors. One of our student members had proposed a possible robot design. Mentors suggested an alternative design that could be used to ensure a successful solution, an essential skill that is learned on our team. Mentors proposed solutions on how to overcome the engineering and programming challenges. From deciding on the robot design to choosing what to have for lunch, students have the final say. All of our team meetings are run by our Captain and Co-Captain. The Lead Mentor addresses business or concerns he has, but then the Captains take over and run the entire meeting. Last year, we helped FRC Team 2713, The iRaiders, give out the White Glove Award, a "Team-to-Team" award. The previous year, we won the award ourselves.

To ensure everyone's safety, we encourage TQR's or Task Qualification Requirements before using any tools and equipment. Every season, we teach a Safety Training Presentation. Mentors and team leaders teach new team members about safety when working with tools. Our team members are often asked to give advice to other teams on how to develop an award winning safety program. This year, the Safety Captains are planning a visual manual of what each machine should look like before use. We will be giving a copy of the manual to Bacon Academy teachers, as a "Thank you" for letting us use their equipment and facilities

SPORKS can apply to a large portion of our team. As funny as a SPORK may sound, this utensil serves an important role on our team. The "S" stands for Safety. We pride ourselves on our award winning safety program. The "P" represents Preparation. We must be prepared for every possible event that could unfold on our team. "Anything that could go wrong, will go wrong" and when working with robots, a lot of things can and will go wrong. The "O" symbolizes Organization. When items are more organized, production moves smoother. We have a tight schedule and a certain plan of action that we follow in order to build a robot successfully in the allotted time. The "R" represents Respect. Showing respect in any situation when adults or peers are present, is a good skill to practice and will be helpful for the future. The "K" stands for Kindness. We want all members to be kind and treat others fairly to ensure a safe working

environment, where students and mentors feel safe and welcome. The “S” represents Sportsmanship or as we refer to it on our team, "SPORKSmanship". Having sportsmanship is very important but it is even more important in our program. We want all members to be gracious in victory or defeat.

Safety is not our only concern. We also want to teach the community and get kids excited about robotics. At the 57 Fest, a local town festival, the robot zoomed across the newly cut grass. One excited kid was about to beat the fastest time of the day; the fastest time of one of our best robot drivers. He drove the robot up the ramp, across the wooden bridge and then stopped at the bottom. Thirteen seconds, impressive. Our captains presented the prize of the drone but that was not the only prize. He got to drive a robot and could not wait to join the team when eligible. This experience continues for other kids at Family Science Night, located at the elementary school. Kids constantly were running into the cones set up to prevent the two robots from hitting each other. While most team members were working on adjusting cones when they got knocked down, other members were engaged in conversations with parents. These conversations revolved around how both the robot and the FIRST program works. Conversations continued on a warm summer day at the Parks and Recreation’s Annual Summer Camp. Children from Grades 1 through 5 and their counselors from middle school and high school, moved through various educational stations our team ran at the local Parks and Recreation Summer Camp. One station let kids build various creations with Legos, practicing prototyping skills. Another station let campers drive a robot through an obstacle course.

Mentors in the driver station behind the controls of a robot? Yes. This happens at Bash on the Beach, a local off-season robotics competition, where twenty-five local FRC teams gather at East Lyme High School. Here, newer members learn all about competition and see last year’s game in action. Our team sponsors this event along with Connecticut FRC teams: 236, 2067, and 1740 but, Dominion Energy is the company sponsor for this event. They also grant us use of their training facility to host each new season’s kickoff event. This gives us a great way to start off the build season where we can talk about team game strategy and robot design. The famous T-shirt cannon robot was made possible by our newest sponsor, Pfizer. UTC provides full funding if we go past the district events and beyond. Some mentors work for our sponsors and can provide us with insight about the engineering fields and how it can apply to our team.

T-shirt’s flying through the air, kids driving robots, and SPORKs, power our team up for the road to competition. Cooperation and Gracious Professionalism leak into our everyday life and we don’t just practice these in our interactions with other FRC teams. We practice these principles within our community and extend them to our team, to our members and to our alumni. It’s time for the RoboCats to POWER UP!