Which event to be judged at?

Briefly describe the impact of the FIRST program on team participants with special emphasis on the 2011/2012 year and the preceding two years. (500 characters allowed, including spaces and punctuation)
The Gatorbotics experience is one that our team members cannot get anywhere else. As an all girls team we work to empower girls to take initiative in science, technology, engineering and mathematics, and provide a hands on learning experience absent from regular classes. Our team members spend countless hours during the build season designing, building, programming, learning and teaching each other. Through FIRST our team members develop the skills necessary to succeed in life.

Examples of role model characteristics for other teams to emulate (500 characters allowed, including spaces and punctuation).
Our team sets an example for other teams by encouraging inclusiveness and collaboration. We accept everyone onto our team, and work with members to find roles that allow them to avoid sacrificing other passions they may have. Within our team new and experienced members collaborate on ideas, and rarely work alone. We share our robot's progress in many ways (YouTube, Twitter, Facebook etc...) in an effort to not only share and collaborate within our team, but in the larger FIRST community as well.

Describe the impact of the FIRST program on your team and community with special emphasis on the 2011/2012 year and the preceding two yeam's ars (500 characters allowed, including spaces and punctuation)
FIRST has given us a new way to learn. Among the monotony of practice problems and lectures in school, being a part of FRC has allowed us to engage in hands on learning and problem solving. As our FIRST team has grown, so has the culture of our school. You can be the star of the basketball team, or a star on the robotics team. Team members would rather meet Dean Kamen than Britney Spears, and at eight o'clock on a Tuesday evening thirty girls will be designing a robot instead of watching Glee.

Team's innovative methods to spread the FIRST message (500 characters allowed, including spaces and punctuation)
This year we started a brand new project called Five Awesome Robots to spread the message of FIRST. Along with four other teams, we post weekly video blogs during the robotics build season sharing our team's progress and explaining the designs that we have prototyped and built. We have been able to spread the FIRST message to twenty-five countries, and helped to break the secrecy that can develop between teams by encouraging collaboration and sharing within the FIRST community.

Describe the strength of your partnership with special emphasis on the 2011/2012 year and the preceding two years (500 characters allowed, including spaces and punctuation)
Team 1700 has strong partnerships with our students, mentors, and community. Every day

during the build season our thirty team members gather, and over the hundreds of hours we spend together we become more than just a team, but a family. We partner with our school and community to transform the way people think, and on our campus the name Gatorbotics is familiar to everyone.

Team's communication methods and results (500 characters allowed, including spaces and punctuation)
Gatorbotics believes communication is key. Through emails, Google Docs, and Facebook our team members communicate to keep our team running like a well oiled machine. We communicate with our community by promoting ourselves at open houses, clubs fairs, FLL tournaments, workshops and school meetings. Through our Five Awesome Robotics video blogging project we communicate with teams and people from around the world and have surpassed 5,000 video views.

Other matters of interest to the FIRST judges, if any (500 characters allowed, including spaces and punctuation)
You can be a stereotype. You can contradict a stereotype. Or you can contradict contradicting a stereotype. Gatorbotics exemplifies this last option. We are simultaneously teenage girls and total nerds. We are completely serious, without taking ourselves too seriously. Our team members have confidence, and can belt-out the latest pop song while writing code for our drive train. We cannot be labeled and put into a box, unless that box is simply labeled "Gatorbotics."

Essay: 10,000 characters allowed, including spaces and punctuation, or approximately 1500 words)

1. All girls team
2. team history
3. what sets us apart
4. breaking stereotypes, women in engineering
5. diversity of team members
6. shaping our school
7. clubs fair
8. upper school meeting demonstrations
9. talking to freshmen physics classes
10. engineering sustainable solutions
11. new bourn idea lab, will change the school curriculum and the way students think and learn
12. make a spot for everyone on the team
13. what we learn
    a. try to make the most practical skills
    b. switch to Java for practicality

    c. solidworks since we have mentors who use it professionally
    d. team members then go on to top universities and excel as engineers
14. management skills
15. off season workshops for the whole school, allow people to see if robotics is for them and try new things
16. FLL help at competitions
17. Bridge program
18. access to internships, school sees interest in science from the team
19. 100% go on to study STEM
20. quotes
21. five awesome robots

What do you get when you put thirty girls, seven mentors, and a case of Diet Coke in a room for six and a half weeks? We're not sure exactly what to call it, but you get a lot more than just a robot.

In December of 2004 a group of passionate students gathered with the Castilleja School principal, a chemistry teacher, an algebra teacher, and a local venture capitalist. At the end of the meeting it had been decided: Castilleja, and all-girls school for grades six through twelve in Palo Alto, California, would have an robotics team for its students.That year the team, otherwise known as Gatorbotics, won the 2005 Rookie All-Star Award at the Silicon Valley Regional, and went on to be one of three all girls teams represented at the Championship in Atlanta.

Seven years later we still have the same passion and enthusiasm seen as the students who gathered to start the team in 2004. We continue to thrive and now have thirty girls on our team, which makes up one eighth of our student body. At Castilleja we have helped females in STEM (Science, Technology, Engineering and Mathematics) fields move away from being a minority and into the mainstream. We have helped transform our culture to make science cool and aim to inspire more women beyond our team.

The first step to spreading our message was making sure that everyone in our high school knew who and what Gatorbotics is. Every fall we show our previous year's robot to the freshman physics classes, and at the weekly upper school meeting. We drive our robot around our school to promote our team at the annual clubs fair, and showcase our team as an example of the emphasis Castilleja School has on science at open houses for perspective parents and students. There is not a single student in our high school who is not aware of our FIRST robotics team. Every student on our team is involved in other clubs and activities on campus so we connect with everyone in our school on an individual level. Students are editors of both school newspapers and work on the school website, so team news is always publicized.

Our team also hosted a series of workshops this fall open to our entire high school. We introduced new members to prototyping by organizing an egg drop competition in which groups were given limited materials and had to build a contraption to protect a raw egg from a one story

drop. Other workshops included topics such as robot anatomy, introduction to computer science and Java, public relations, Java applications to robotics, and machine training. These workshops allow us to bond as a team, get new members up to speed, and give returning members the opportunity to teach their peers. Team 1700 believes in the importance of learning together and from one another, and our workshops help promote this value.

As Castilleja is a school for girls in grades six through twelve we aim to broaden our influence to the middle school students as well. Our team members volunteer at FIRST Lego League competitions and we showcase our robots to the middle school students competing. As we show off our five foot robots the kids love seeing how what they now do as a part of their FIRST Lego League team could transform into a full sized FIRST Robotics Team robot.

Because of the interest in engineering our team has sparked, our school has created two new courses, Introduction to Engineering, Programming, and Robotics; and Engineering Sustainable Solutions. These new classes were open to all members of the upper school; including individuals not on the robotics team. The classes are largely project based and promote the importance of group work; a mission shared with FIRST robotics. Additionally, programming has been incorporated into middle school science and math classes, and allows young girls in our community to experiment with engineering and computer science.

We have also helped to physically transform our school. As a team we strongly believe in the importance in having the right tools and hands on learning experience. Working with our school's administration we were able to establish a plan for a new space within our school. This space is now known as the Bourn Idea lab, and is named in honor of our late mentor Doug Bourn. Doug's patience and work with our team is now honored by the amazing Bourn Idea Lab which the school plans to use to change the way learning takes place at our school. Middle school classes are already using the the space to design and create projects, and this is only the first step to changing the way students in our school think and learn. By day classing are taught in the lab, and at night our robotics team is in the lab ready to do the math and save the world.

Over the past two years our team has more than doubled in size from thirteen girls to thirty. This increase has prompted our school's science department to provide more opportunities for members of our community to pursue STEM fields in the form of internships. Team members have even been fortunate enough to pursue summer internships at Stanford and UC Santa Cruz where they have worked on everything from modeling astrographs in SolidWorks to writing java applets to simulate rotational motion in galaxies.

Outside our school we serve as role models to children in our community. Gatorbotics works with our school's Peninsula Bridge Program to mentor and lead activities with elementary school girls from underprivileged socioeconomic backgrounds. We help with Science Saturday workshops to get the girls excited about math and science while learning about concepts from density and compounds versus substances to how to make small toothbrush-head robots. The girls always have fun and one even exclaimed, "Wait is this science? Because this is cool!" We

hope to inspire these girls to pursue careers in STEM fields while enjoying the time they spend learning.

Finally, our team has been able to spread the message of FIRST around the world. Last December we founded an international video blogging project called Five Awesome Robots. Gatorbotics and four other FIRST teams post weekly video blogs to our communal channel at youtube.com/fiveawesomerobots. The project has teams from California, Texas, Pennsylvania and Australia allowing us to show a diverse group of teams. The original goals of this project were to encourage collaboration between teams and to provide a resource for teams interested in seeing how other teams design their robots and function. Since the videos are on YouTube they are easily accessible to people from different ages, academic backgrounds, and around the world. Currently, we have been able to reach over 5,000 views from people in over twenty-five countries. Of course, it wouldn't be a Gatorbotics production if we did not have fun along the way, as seen through fun titles (including "Weather Report: Brainstorming") and a chronicle of our team's experience working through the day our school was testing the fire alarm system every ten minutes.

While we strive to educate members of our school, community, and the world, our team members are the ones who get the most out of the Gatorbotics experience. Gatorbotics prepares our team members for the real world as we use Java, one of the world's most popular programming languages, on our robot and we are a completely student driven team. From fundraising to making the final design decisions, everything is done by our team members. With the skills gained from being on our team, one hundred percent of our team members have gone on to college and studied STEM fields in college, and they have excelled at top universities such as Stanford, Rice, Princeton, Cal-Tech, and MIT. However, these team members remain connected to our team, and we have now have two former team members as full-time mentors of our team. One of these mentors Meg recently remarked, "All I really need to know I learned in Gatorbotics." The connections formed between our team members are stronger than the welds on our robot, and as we often joke, we are not just a team but a family.

This year's Team Captain sums up her time on the team perfectly:

"Through robotics I have made some of my best friends, and I know that, when I look back on my time in high school, robotics will come to mind first. From the high of winning the Xerox Creativity Award at the 2009 Silicon Valley Regional, to the low of losing our beloved mentor Doug Bourn in a tragic plane crash, my robotics family has always been by my side. Robotics has transformed me from a shy freshman into a confident leader of the team, and I would not trade my time on the team for anything."