



Concord High School Robotics Team 1721 Tidal Force

2016-2017 Sponsorship Packet



Who is Tidal Force?

Team 1721 Tidal Force is an interdisciplinary team devoted to designing, building, testing, and competing with a robot in the FIRST Robotics Competition (FRC). Tidal Force currently consists of high school students interested in the fields of Science, Technology, Engineering, and Mathematics (STEM) and applying related skills in a fast-paced, business-like environment gaining experience to solve complex problems.

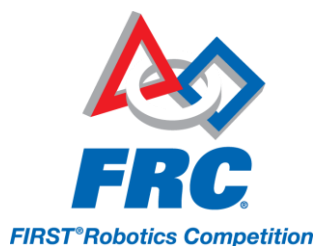
The team will participate in the 2017 FIRST Robotics Competition game, which is to be unveiled on January 7, 2017. From that date, the team will have exactly 6 weeks to

design and fabricate a robot to completion. Along with building a robot, the team interacts heavily with the community to promote STEM in the greater Concord area. The team is also a recognized 501(c)(3) nonprofit organization.



2015-2016 Tidal Force Robot

What is the FIRST Robotics Competition?



The FIRST Robotics Competition is a competition held by the company FIRST. FIRST, For Inspiration and Recognition of Science and Technology, is a Dean Kamen company founded in 1989 focused on transforming *'our culture by creating a world where science and technology are celebrated and where young people dream of becoming science and technology leaders.'*

The competition is held at a district, regional, then international level where teams that place well at district events, have a chance to be in a ranking to move up to regionals. Regional competition winners then move on to the international competition, which will be held in St. Louis, Missouri in 2017.

This past year, Tidal Force attended the FIRST Robotics event, entitled: *FIRST Stronghold*, at two district events: the Granite State Event in Windham, NH and the University of New Hampshire Event in Durham, NH. The game had a medieval warfare theme where the objective was to cross over the opposing alliance's defenses and shoot boulders, which were simulated as foam balls, at their tower to score points. Rules defined in the FRC Game manual helped define constraints in the robotic design and determine the optimal game strategy.



History

Tidal force was officially formed in 2006 and have participated in the FIRST Robotics Competition each year since its conception. Each year's teams had successful builds and community involvement receiving recognition from both FIRST and the Concord School District. Each year's robot design has been both consistently robust and advanced, from a basic joystick control in 2008, to the more advanced LabView user interface and motor controls used in 2009, to an even more advanced system utilizing an onboard computer, a PlayStation 3 controller for command inputs, and a custom user interface. This year, we aim to improve on the controls and footprint of the robot, organizing the electronics and hardware, as well as creating a more compact chassis and robust autonomous control system.

2016-2017 Design Goals

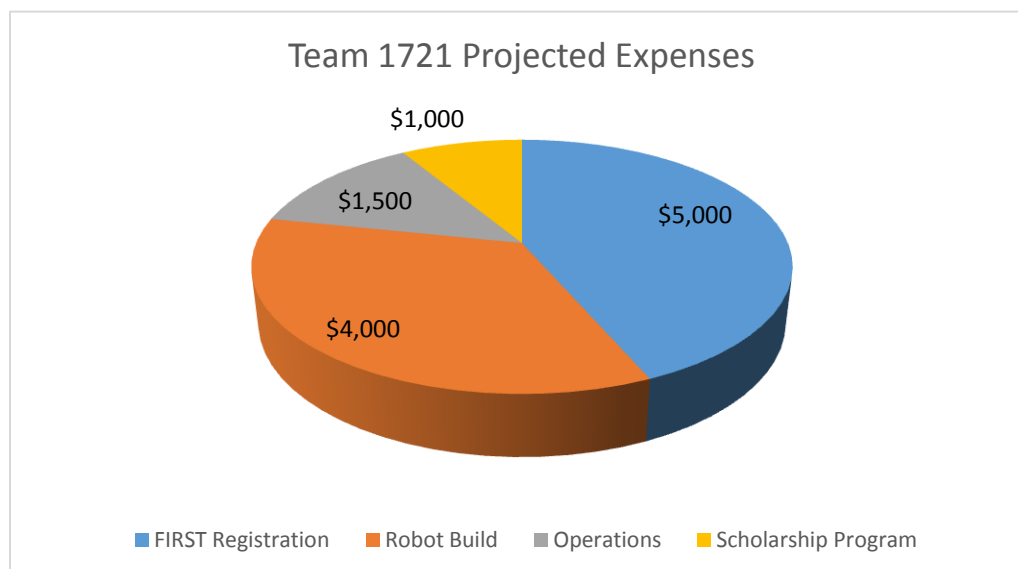
- Controls
 - Virtual reality headset integration
 - Positional sensor package for greater autonomous control
- Chassis
 - Create a more compact frame
 - Sleek design to lower CG
- Drive Train
 - Maximum maneuverability
 - 4-6 motor configuration



2015-2016 Team



Team Expenditures



Below is a description of each expenditure category as shown:

FIRST Registration – This is required by FIRST every year to receive a Kit of Parts and register the team for District Events.

Robot Build – This is an estimated cost of the design and fabrication of the robot.

Operations – These expenditures include overhead for STEAM community outreach activities, tool costs, travel costs, and other extraneous costs

Scholarship Program – A \$1,000 scholarship is going to be awarded to a senior who goes above and beyond in demonstrating FIRST values of hard work and gracious professionalism.

Benefits of Sponsorship

- Any donation, whether material or financial is entirely **tax-deductible**.
- Sponsors will receive local, national, and international recognition and attention. With any amount of donation, your advertising will receive worldwide attention due to the international reach of FIRST.
- This is a unique opportunity to help a generational team that aspires to go beyond expectations. The team will be building an entirely new robot, which provides sponsors the chance to invest and be part of a project that will set a new standard for Tidal Force while continuing the ongoing pattern of success.
- Your support shows commitment to providing high school students with the opportunity to exercise their knowledge and gain crucial experience before entering post-secondary education and/or the work force.



What can you do to help our team?

Any amount or type of donation will greatly help our team. If you would like to donate materials, please contact the Nonprofit President, John Marcel (jmarcel66@gmail.com). If you would like to invest in the team, it will be much appreciated and will not go unnoticed. Please refer to the following chart for what we offer in exchange for your generous donations:

- Iron Tier \$25-\$99
 - Business name on website
 - Thank you letter from the team
 - Added to the email newsletter
- Bronze Tier \$100-\$499 – *As well as all previous benefits...*
 - Business name on team T-Shirts (if sponsored before December 15, 2016)
 - Business logo on our website
- Silver Tier \$500-\$999 – *As well as all previous benefits...*
 - Business logo on team T-Shirts (if sponsored before December 15, 2016)
 - Business name listed in our pit
- Gold Tier \$1000-\$1499 – *As well as all previous benefits...*
 - Business logo on our robot
 - Business logo in the pit
 - A team T-Shirt
- Platinum Tier \$1500-\$2499 – *As well as all previous benefits...*
 - Large business logo on our robot
 - Large business logo in our pit
 - Large business logo on team T-Shirts (if sponsored before December 15, 2016)
 - Mentioned by name in all media events.
 - 3 team T-Shirts
- Diamond Tier \$2500+ – *As well as all previous benefits...*
 - Thank you so much for such a generous gift! Please get in touch with us to work out a sponsorship benefits package that works with you!