



## **FIRST Robotics Team #203**

### **2022 Business Plan Overview**

Camden County Technical Schools Sicklerville, NJ		Instagram/Facebook - @FRCTEAM203		E - frcteam203@gmail.com W - www.Team203.com
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## Introduction

### Year Established

The SOUPER Bots, Team 203, was established in January 1998.

### Executive Summary

Team 203 is a jigsaw puzzle. Each of our members are contributing pieces to the broad picture of teamwork and unity to accomplish a common goal. Together we aim not only to succeed in our competitions, but to motivate our members to explore their opportunities in the fields of science, technology, engineering, arts, and mathematics (STEAM). Before the start of the build season, we focus on spreading the word of FIRST in and outside of our school. Our team provides after-school workshops, robot demonstrations, and training in all aspects of our team. Through this process our team has impacted the academics of our school, the attitude of our communities, and strengthened our minds to confront challenges that may appear.

### Team Motto

Uniting future generations of STEAM

### Mission Statement

To provide a challenging learning environment in science, technology, engineering, arts and math, “gracious professionalism”, and out of the box thinking, which maximizes individual potential and ensures students are well-equipped to meet the challenges in the world around them. We motivate our members by encouraging them to explore all aspects of our first team; thus creating an unbreakable bond between students, mentors, and the world of first to meet the challenges of the 21<sup>st</sup> century.

### FIRST Mission Statement

“Our mission is to inspire young people to be science and technology leaders, by engaging them in exciting mentor-based programs that build science, engineering and technology skills, that inspire innovation, and that foster well-rounded life capabilities including self-confidence, communication, and leadership.”

-FIRST® website ([www.usfirst.org](http://www.usfirst.org))

## Member Benefits

- Students
  - Support from fellow peers
  - Gaining hands on experience
  - Develop leadership, communication, and teamwork skills
  - Friendships
  - Come out of their comfort zone
- Mentors
  - Watching students grow and develop as they progress throughout the years
  - Students coming together to problem solve
  - Grow as a leader by guiding students
  - Continued education
  - Obligatory criticism
- School
  - Students advance in academic subjects
  - Brings together the schools diverse career shops
- Sponsors
  - Publicity

## Team Overview

### Basic Team Facts

<b>Rookie Year</b>	1998
<b>Location</b>	Sicklerville, NJ
<b>School Affiliations</b>	Camden County Technical School
<b>Team Demographics</b>	22 girls and 49 boys 1 school 32 towns
<b>Mentors</b>	Mr. Andrew McAlpin Mr. Tony DePrince Mr. Alan Norton Mr. John Kammler Campbells Engineers Mr. Adam Brownlow Mr. Timothy Barr
<b>Sponsors</b>	Campbell Soup Foundation US. Army Camden County Technical School Summers Quality Services The Gibson Tarquini Group Bach Design Group Techni Tool Inc. CCTS FIRST Robotics Family Boosters Association
<b>Website/Social media</b>	Website- <a href="http://www.team203.com">www.team203.com</a> Facebook- FIRST Robotics 203 -CCTS Instagram- FRCTEAM203 Twitter- @frcteam203 YouTube- FIRST Robotics Team #203 Email- <a href="mailto:frcteam203@gmail.com">frcteam203@gmail.com</a> Blog- <a href="http://cctsfirst.blogspot.com">cctsfirst.blogspot.com</a>

## Team History

Team 203 learned about the FIRST competition through our partnership with Campbell's Soup and Siemens' Electronics in 1997. We have strengthened our team through a partnership with Garvey Corporation, who supplied us with technical and financial support. As the years progressed for our team, the numbers of members steadily increased as the word of our robotics team made its way around the school. Each year, our team focuses on member involvement with the creation of every aspect of the team during the build season, such as, the creation of parts, imagery, business, CAD, programming, and volunteer work. With the wide range of aspects of branches that create this team, we encourage the diversity to spread between our members.

## Team Values

We value PLEBS

- Perseverance
- Leadership
- Enthusiasm
- Benevolence
- Sportsmanship

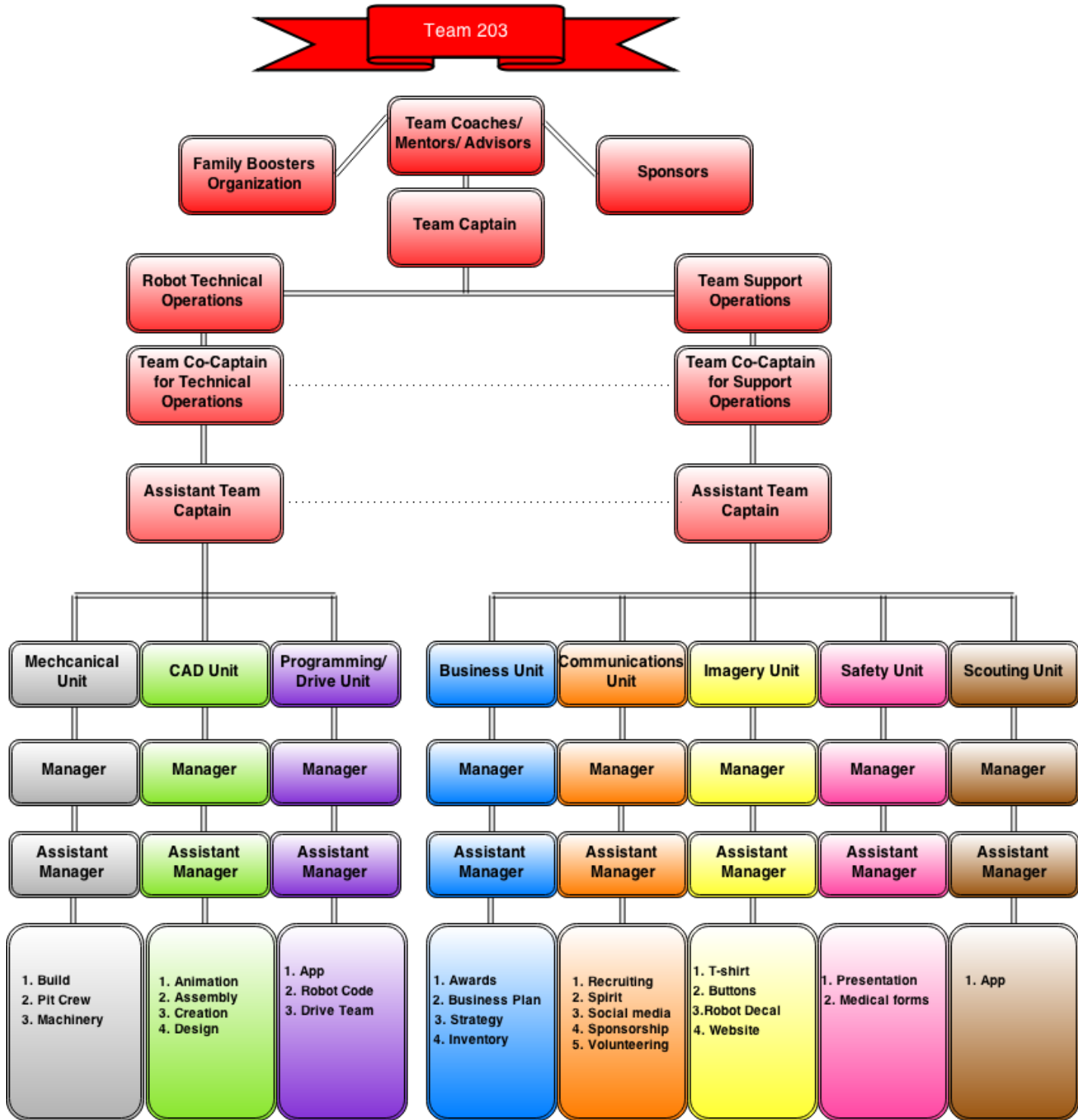
## Team Goals

1. Short term
  - a. Increasing our community outreach
    - i. Volunteer work
    - ii. School visits
    - iii. Steady social media
  - b. Create offseason workshops
    - i. Teach programming
    - ii. Teach engineering
    - iii. Adobe illustrator
    - iv. Find creative ways to promote safety
2. Long term
  - a. Expand the FIRST program into becoming a varsity sport





# Managing Our Team



## **Building a Team**

### ***Recruiting***

We participate in our school's biannual open house. At this event, we have our own booth where we present information about our team, hand out brochures, and conduct robot demonstrations. Our veteran team members reach out to students who are enrolled or interested in enrolling in our school. They serve to inform these students about the benefits of becoming a member of our FRC team, and have the chance to speak to our mentors and ask any questions. The team also hosts "tryouts" where prospective members may explore the different subgroups of the team, they are also interviewed by the mentors to assess the student's unique skills, enthusiasm, and commitment to the team.

### ***Engaging our Members***

At the beginning of the season, the team separates into smaller groups to discuss strategies/game plans for the newly revealed game. Afterward each team gathers again to present their ideas. The beginning of each work session during the season begins with each subgroup describing what they plan to do during the session and how they plan to go about it, then once again at the end of the work session the groups come together to show the team what they accomplished, and what they plan for the next meeting.

### ***Training***

#### Workshops

Team 203 hopes to build members who are well-rounded. We want to offer them the opportunity of doing every aspect that makes up our FIRST team (scouting, design, building, programming, business, and most importantly social skills). In order to increase the involvement and productivity of our members we host workshops during the pre-season. During these workshops our members are able to learn about other sub teams that they may have not joined the season before. They learn how to do these other jobs with the help and guidance of our mentors and senior members. These workshops are then continued when the season begins but are now directed towards the new members. Now all members and mentors are able to serve as teachers to the incoming members. Thus, increasing the productivity of the team and allowing the team knowledge to be passed on.

#### Mentoring

A team does not only consist of the hard working students but also the mentors who assist them on every challenge. The mentors on team 203 are an essential part of our success. They provide us with enough freedom to explore our ideas while also ensuring that we remain focused. When the students are unsure of how to eliminate a problem our mentors present us with alternative solutions. They give us constructive criticism when checking over our completed assignments. They do not correct our mistakes rather they

challenge us to find the flaws and fix them. Our mentors do not give us answers, they give us the motivation to search for them.

### Senior Members

The senior members of Team 203 spend their last year passing on their knowledge. They begin to look for those younger members whom they believe have the potential to step up after their graduation. When passing down their positions, senior members look for hard-working, dedicated, motivated, and optimistic members. Besides that they look for members willing to tolerate their fellow members even when mistakes are made, and even members that stay on task and will listen to others. During the season senior members step up by stepping down. They do this by allowing the next generation of members to take on more responsibility with the teams decisions. In addition, to that the senior members become mentors for the younger members.

### Tuesdays with Team 203

These Tuesdays were for any member on our team to have the opportunity to learn about the other divisions. Since it was off season, veteran members had more time to answer their questions and give them hands on experience in a division they have interest in. The day also consisted of everyone pitching in to clean up the workspace and brainstorm about the upcoming season. Team leaders meet in order to discuss ways to improve on the communication between divisions and the overall organization of the team.

### VRC Teams

Our VRC teams were created during the conclusion of the 2015 competition season. It offers robotics on a smaller scale for those who might be new to the experience. The newcomers have a chance to learn skills and critical- thinking techniques that will ease them in their transition to the FRC team. Veteran members also act as mentors to these teams and promote the teams' understanding of the mechanics of the FRC team.

### ***Team Expectations***

On Team 203 we have a variety of expectations for this team, some of which include their cooperation, attitude, and also their presence. For instance, during the probationary period it is recommended that the new members of this team come at least twice a week. Not only that but we encourage our members to attend as much as possible to maximize and increase their knowing of what the team is accomplishing, but also know how we are doing it. While having the best attendance does not guarantee that you will be the first considered when an opportunity becomes available, members should be participating not only by hands on but also through observations and demonstrations when they are present. Members should not expect to be given instruction rather they should recruit themselves to someone who is experienced in an area of their interest. Along with presence and cooperation (changed) members should present themselves with a positive and ready to learn attitude in addition to learning and improving from their mistakes when made rather than turn their back on them. Lastly attitude, attitude is also reflected through the actions of returning and graduated

members for they must be obligated to understand that new members will go through a lot of trial and error but they must remain calm and guide them through it.

## **Location**

Team 203 worked in an unoccupied classroom before relocating to the school's unused machine shop due to the increasing number of members. The success of our team after relocating to the machine shop was influential in the school's decision to remodel the room, repurposing the space into a Pre-Engineering workshop. The new instructor that was hired to teach the shop has contributed much time towards training our team to properly and successfully use the machine shop to our advantage. In addition, our graphics team frequents the school's print shop, which allows them to use advanced software and machines (such as Adobe Photoshop, Illustrator, and Vinyl Cutter) to develop designs for the team's t-shirt, logo, and robot decals.

## **Off-Season Events**

At off-season events, we are given the opportunity to form new bonds with other teams and learn about their progress and accomplishments. Through this communication, we build alliances with the other teams, but more importantly, we develop new friendships with their members. Not only do the off-season events serve as a place to network, but also a place for improvement. Reusing our previous robots at these events allows us to reflect on our successes and acknowledge our mistakes, which betters the team for the following build season. Our business team is able to inquire about ideas, suggestions, and feedback regarding a proper approach towards achieving chairman's award and developing a business plan. Currently, our robotics team participates in one off-season event, but the expansion of the team will allow us to attend additional events each robotics season.

### ***Dual on the Delaware***

Dual on the Delaware is an off-season event that we have attended for the past 4 years. This event is held at Salem Community College in New Jersey, and hosted by Teams 365 and 316. We compete amongst 30 other teams from the Mid-Atlantic region at this event, both for the best performance in the local championship and for the spirit award; the latter of which we have won on two previous occasions. Being a participant these events has helped us expand our contact with other teams from the FLL and FRC league.

### ***GirlPOWER***

GirlPOWER is an off season competition that our team competed in for multiple years . The event gave the female members of the team a chance to take control of the robot. In order to be able to compete in this competition, the teams had to have an all-girl drive team. This was a wonderful opportunity for the team to support the female members of our team and encourage them to branch out to different aspects of FRC. From drive team, to the pit crew, to the heavy lifting, they stepped up and completed their tasks perfectly. Many teams attended the competition, including the hosting team 433, the Firebirds. In 2017, We were able

to have an all-girl pit crew as well, and our team worked fantastically together enabling us to take home 2<sup>nd</sup> place for the first time in our team's history. Many parents and members came to watch them compete even though off-season events do not attract as much attention as the seasonal events a good amount of people did come to cheer the female drive teams on.

## **Community Outreach**

Camden County Technical School recruits students from 45 elementary/middle schools from within the county. Because we are a technical high school, we have the unique opportunity to involve ourselves in various career fields. We have even established our first Pre-Engineering career program around the year 2000, followed by our Information Technology academy in 2009 and the Medical Arts academy in 2010. Our second Pre-Engineering career program was created in 2013. Our Sister Campus in Pennsauken, recently implemented a Pre-Engineering program, and under our tutelage have created their own FRC team. Throughout the season, our team mentors them, and assists in their comprehension of creating and actualizing their designs and business plans. We have also

## ***STEM Camps***

During the summer of the 2015 year, our team started a S.T.E.A.M (Science, Technology, Engineering, Math) summer camp for children in grades 6-8. The camp was a one week program and was offered at our school's Gloucester and Pennsauken campuses. The participants were taught engineering techniques such as, the famous "Engineer Design Process" to design and build a robot using Vex parts. Team members in the Information Technology Academy at our school, took a role in teaching the kids how to take the robots they've designed and built through their newly acquired engineering skills, and taught them the logic and methods of programming it to do what they want it to do. Each child was also introduced to the competitive yet professional elements included with F.I.R.S.T. competitions, as they were given one week and then competed in an actual FTC challenge using the robots they made from scratch. Overall, the summer camp was a great experience for everybody who attended it, as well as our team members who volunteered. The children were very proud to show their parents the robots they built and explained to them what they had learned during the week. At the same time, team members enjoyed interacting and teaching the kids whenever they became stuck, with little to none mentor involvement or guidance. The camp was a huge success and as a team our hope will be to continue to offer programs such as this to middle school level kids, and open their minds to science, technology, engineering, art and math.

## ***NJSBA Convention***

Our team was invited to the NJSBA (New Jersey School Board Association) convention during the fall of 2015. Being part of the convention's iSTEAM section gave us the opportunity to spread the message of our team, our school, and the world of FIRST. We separated some of our junior and senior member over the span of the convention to represent our team at the convention each day. Our members talked to school board

members from all across New Jersey, informing them about how the FIRST Robotics program works. In addition, many of these school board members and teachers wanted to know how they can start a FIRST team of their own at their school or school district.

### ***Boy Scouts***

On November 10, 2016, the team hosted a nighttime robotics workshop for a local boy scouts troop. The troop members were told about our FIRST team and about the mechanics of our robot. These children also presented us with posters they made themselves about their knowledge of robotics. Members of our team broke them up into 5 groups to finish building robots that were started by Our VRC teams. Once they completed their robots, the member assisting each team brought them to a pre-constructed field to compete against one another. Each child on the team was given a chance to drive their robot and race the other team's bot in the obstacle course.

### ***Tech Challenge***

In 2016, The FRC team was permitted to host a "Tech challenge" for young middle-schooler' in which they must engineer a unique device with the parts given and catalogue their process and data in an engineering notebook. They must then compete for multiple awards such as overall performance, engineering notebook, and safety. This event is to nurture future generations interest in the STEM field and reward teams not only for a functional creation, but also proper documentation in their engineering notebooks which are important in STEM careers and safety.

### ***The Biannual Yard Sale***

At our school's biannual yard sale, our team contributes to the community event by running a car wash, accepting donations in any denomination. Our parent booster association buys a booth space so that they can sell pillows made out of our current and past year team shirts. Not only do we make people's days (and their cars) shine, but we also benefit from the fundraising opportunity that the yard sale provides. Towards the end of the yard sale, a handful of members from the team walk around to each booth asking for their unsold clothing. These clothes are donated to the local goodwill at the end of each school year. The team hosts the clothing drive year around, asking parents and students to drop off any no longer wanted clothes to our pre-engineering classroom.



## Operational Plan

### Tasks

Before, during, and after the season, our sub-units set milestones they want to complete throughout each year. This projects are updated yearly and are as follows for the 2016-2017 season:

<p>Mechanical Unit</p>	<ul style="list-style-type: none"> <li>● Build a Robot that is             <ul style="list-style-type: none"> <li>○ Efficient</li> <li>○ Lightweight</li> <li>○ Fit for competition</li> </ul> </li> <li>● Train First-year Builders</li> </ul>
<p>CAD Unit</p>	<ul style="list-style-type: none"> <li>● Create robot design in CAD</li> <li>● Create Labeled and Individual robot parts</li> <li>● Teach new members how to use CAD</li> </ul>
<p>Programming/ Drive Unit</p>	<ul style="list-style-type: none"> <li>● Create code for Robot             <ul style="list-style-type: none"> <li>○ Auto and Game Specific</li> </ul> </li> <li>● Build Drive Station</li> <li>● Practice using drive station and code</li> <li>● Teach members how to code</li> </ul>
<p>Business Unit</p>	<ul style="list-style-type: none"> <li>● Complete Awards             <ul style="list-style-type: none"> <li>○ Chairman's</li> <li>○ Entrepreneurship</li> </ul> </li> <li>● Update Business Plan</li> <li>● Teach members the award process and the business plan</li> </ul>
<p>Public Image Unit</p>	<ul style="list-style-type: none"> <li>● Update social media             <ul style="list-style-type: none"> <li>○ Facebook</li> <li>○ Twitter</li> <li>○ Instagram</li> <li>○ Google+</li> </ul> </li> <li>● Recruitment of             <ul style="list-style-type: none"> <li>○ Sponsors</li> <li>○ Members</li> <li>○ Mentors</li> </ul> </li> </ul>



	 <ul style="list-style-type: none"> <li>• Volunteer work</li> <li>• Spirit committee</li> <li>• Website Design</li> </ul>
Imagery Unit	<ul style="list-style-type: none"> <li>• Create Designs for             <ul style="list-style-type: none"> <li>○ T-shirt</li> <li>○ Buttons</li> <li>○ Robot</li> </ul> </li> <li>• Improve team logo</li> </ul>
Safety Unit	<ul style="list-style-type: none"> <li>• Update             <ul style="list-style-type: none"> <li>○ Safety Presentation</li> <li>○ Medical Forms</li> <li>○ Safety Procedures</li> </ul> </li> <li>• Teach members safety procedures</li> </ul>
Scouting Unit	 <ul style="list-style-type: none"> <li>• Complete and Update Scouting Forms</li> <li>• Complete Scouting App</li> <li>• Teach members how to use scouting forms</li> </ul>
Data & Records	<ul style="list-style-type: none"> <li>• Collect and log information</li> <li>• Offer input on design</li> <li>• Combine logs to create engineering notebook for season</li> </ul>
Field Support	<ul style="list-style-type: none"> <li>• Constructs practice field</li> <li>• Studies obstacles robot has to maneuver around.</li> <li>• Construct and erect pit for competitions.</li> </ul>

## Communication

Communication is an essential factor of a functioning team. This being said, Team 203 focuses on communicating between each other, departments, school faculty, and other teams. We regularly host weekly meetings for our “Leadership Group” and mentors to keep all subgroups updated on progress in weekly and daily goals. On lower scales, work is documented and reviewed by Subgroup leaders to uphold a common work direction. Meetings between mentors and school faculty take place to ensure the spirit of FIRST reaches outside of our build room. We communicate our progress and successes through our social media. Utilizing Facebook, Instagram, Twitter, Blogger, and YouTube, we remain up-to-date with other teams. Also, we utilize our “CCTS wake up” TV program and our school newspaper with info about our team. Aside from

media, we deliver the message of FIRST to the community by frequently attending and demonstrating exemplary at events such as school board meetings, community summer events, and other occasions.

## Marketing

### Target Audience

#### Potential Members

Our FIRST Robotics team regularly hosts school visits for prospective students to view the FIRST Robotics program in order for them to experience what working for the team would be like. Members talk to their friends about things that happen throughout the season regularly, sparking their interest into knowing more about the program and how to join. We also gain interest in potential members through our school's pep rallies where we demonstrate the robot and shine a light onto the program. In addition, we have plans for more visibility of the FIRST Robotics program at the school are currently underway.

#### Administration

Becoming more professional in regards to working with our school administration have allowed school administrators to take our program more seriously. Because of the respect administrators have for the FIRST Robotics program, the school works with us more. They provide us with teachers who are interested in this program and want to help mentor our team. The administration also provides us with funding to continue competing and inspiring students involvement in STEAM.

#### Sponsors

Our team keeps our sponsors regularly informed through our blog and monthly emails that get send out. We send out letters to potential and current sponsors asking if they would like to make a donation to the team. Our main sponsor, Campbell's, has provided us with experienced engineers who help us with any technical problems. We have also recently received sponsorship from Lockheed Martin which also provides us with guidance from their engineers. The team regularly invites our sponsors to visit, and receive recognition.

#### Parents

Parents are given the opportunity to help out FIRST team members whether it be through the actual construction of the robot or through fundraisers. There are many fundraisers that parents create and participate in, including Designer Bag Bingo, car washes, t-shirt pillow sales at yard sales, and coupon books sales. Parents help guide our team members whenever they see that we are stuck or if we ask for assistance. They show dedication to our team during our competitions by cheering us on in the stands.

## Marketing Mediums

### Visiting schools

Team representatives are sent to different elementary and middle schools across Southern Jersey. Our members speak to the students about STEAM and the FIRST organization. Using our most recent robot, the representatives do a demonstration where the students are able to see the mechanics up close. Following the demonstration, the students are able to ask questions they have regarding our team, FIRST, and STEAM.



### Imagery

Imagery is a crucial part of any FIRST team. Our imagery is the physical representation of who we are. These graphics distinguish us from the other teams; they make us more eye-catching and well-known among the world of FIRST. Every season, our team creates a new design for our t-shirts, buttons, and the robot decals. These designs focus on the game, the team, and thanking our sponsors for their support. Before and after the season our graphics unit dedicates their time to actualize and compose the team's generic logo and competition design.

### Social Media

Our team uses social media to help keep parents, other teams and anyone interested in our team up-to-date on the progress we are making on our robot and other divisions during build season and year-round for our community service endeavors. We also use this to promote the word of FIRST to those who haven't heard about it. On our social medias we give them information on the upcoming competitions that we are going to be part of. Also, we let them know that they can feel free to email us any questions they have or any sponsoring they want to do for our team.

### Word-of-mouth

Spreading the word of FIRST is an important part of any team. One of our main goals is to increase and maintain involvement of our members, their families, friends, and school faculty. This has become easier over the years as we have recruited more members. Much like the childhood game "whisper down the lane", our members begin by talking to those around them. Following these conversations, a network starts to form, expanding the net of our reach to people. Thanks to these interactions between members and those outside the world of FIRST, we are able to promote our competitions, demonstrations, and fundraisers to non-members.



## Financial

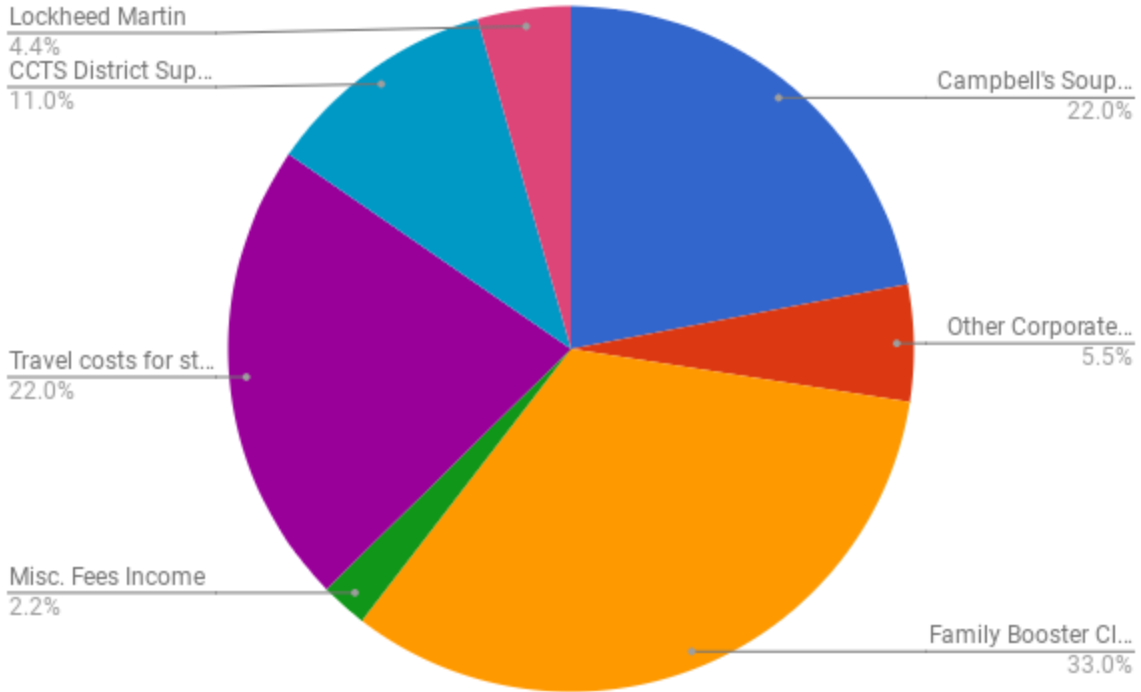
### Sponsors

Our sponsors are one of the main branches that supports our team financially. They provide financial support and offer their time during our robotics seasons. Currently, our sponsors are Campbell Soup Foundation, Camden County Technical School, Summers Quality Services, The Gibson Tarquini Group, Bach Design Group, TechniTool Inc., and the CCTS FIRST robotics Family Boosters Association. We look forward to communicating with each of our sponsors during each new game season.

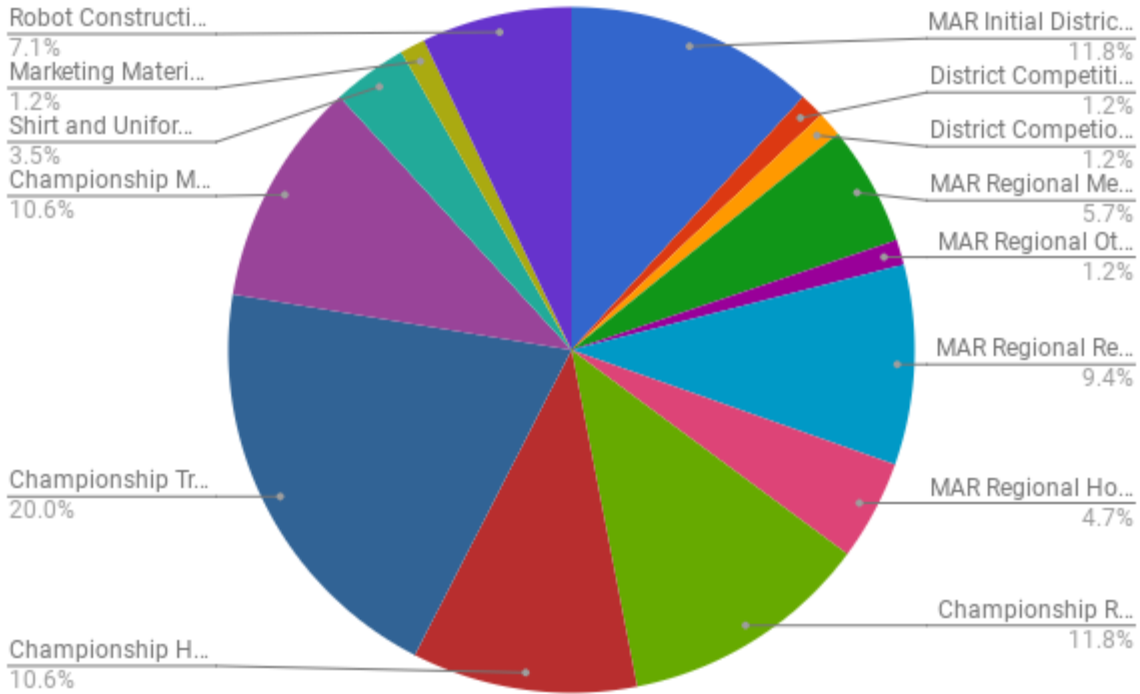
### Parent Boosters Fundraisers

Our fundraising journey began in 2012 when we hosted our first car wash during our school's giant yard sale. That day began with us helping the staff set up for the yard sale, then we would wash cars, and finally help clean up after the yard sale had ended. Payment was not a requirement at the car wash but we did request donations. This event soon became an annual fundraiser for us; it was a team-uniting fundraiser as parents, members, and mentors were involved. The following year parents who had contributed time and efforts at the car wash came together and discussed becoming parent boosters. They began seeking out different fundraisers for us, including selling coupon books and Boscov's coupons. At the next yard sale some parents created pillows out of leftover T-shirts we had from over the years and those were sold at the event. Towards the end of the year, the parent boosters had successfully raised a good amount of money that contributed to paying off some of the team expenses. Due to this success all team parents were summoned again and they discussed formally creating a Parent Boosters Association. One week after the 2014 season had ended the CCTS FIRST Robotics Family Boosters Association was established. A parent council was voted into office and they began planning fundraisers for the next September. Coming back from a long summer, our parent boosters got right to work and began completing the plans for the 2014-2015 robotics year. Currently this year, our parents have completed various fundraisers including the coupon book sales, the Boscov's coupon sales, and a new fundraiser. This new fundraiser was a designer handbag bingo, where parents had the opportunity to fund our FIRST program while enjoying a night off. But bingo wasn't the only activity they had the chance of enjoying, there were also raffles and silent auctions held at the fundraiser. Due to this year's massive success our boosters plan to host another bingo in the upcoming fall. In addition, to these fundraisers our boosters have plans to host another car wash in the spring, alongside a family-fun raffle. They have hopes of also organizing a dance-a-thon in the time to come.

### 2017-2018 Budget



<i>Revenue Source</i>	<i>Amount</i>
<i>Campbell's Soup Foundation</i>	\$10,000.00
<i>Other Corporate Donations</i>	\$2,500.00
<i>Family Booster Club Fundraising</i>	\$15,000.00
<i>Misc. Fees Income</i>	\$1,000.00
<i>Travel costs for students (paid by students)</i>	\$10,000.00
<i>CCTS District Support</i>	\$5,000.00
<i>Lockheed Martin</i>	\$2,000.00
<b><i>TOTAL Revenue</i></b>	<b>\$45,500.00</b>

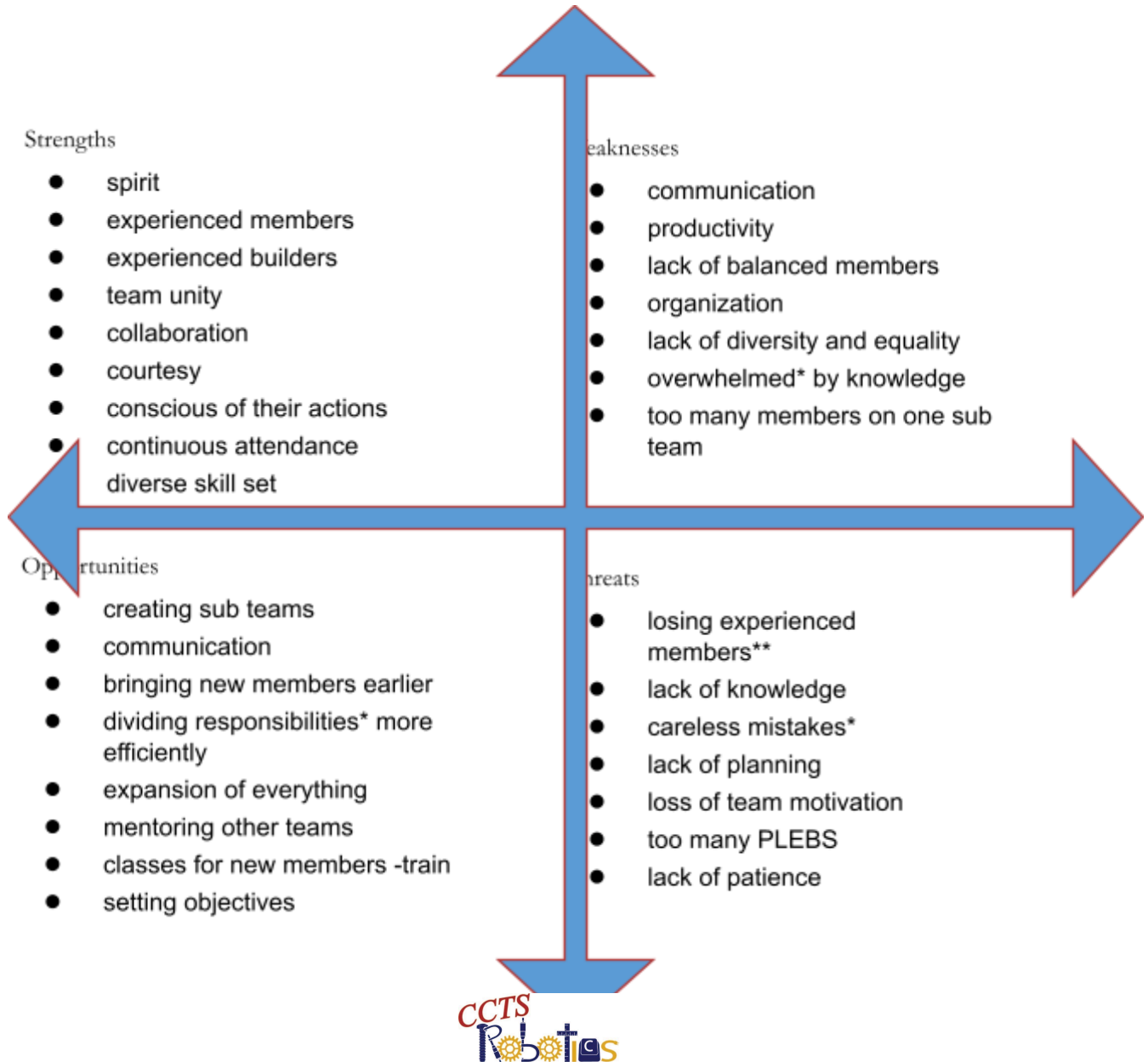


<i>Expenses</i>	<i>Amount</i>
<i>MAR Initial District Registration</i>	\$5,000.00
<i>District Competition Meals</i>	\$500.00
<i>District Competition Other Expenses</i>	\$500.00
<i>MAR Regional Meals</i>	\$2,400.00
<i>MAR Regional Other Expenses</i>	\$500.00
<i>MAR Regional Registration</i>	\$4,000.00
<i>MAR Regional Hotel</i>	\$2,000.00
<i>Championship Registration*</i>	\$5,000.00
<i>Championship Hotel*</i>	\$4,500.00
<i>Championship Transportation*</i>	\$8,500.00
<i>Championship Meals*</i>	\$4,500.00
<i>Shirts and Uniform Expenses</i>	\$1,500.00
	\$500.00
<i>Robot Construction Supplies</i>	\$3,000.00
<b><i>TOTAL Expenses</i></b>	<b>\$42,400.00</b>

## Competitive Analysis

SWOT Chart

SWOT stands for Strengths, Weaknesses, Opportunities, and Threats that apply to our team. The following chart demonstrates our SWOT:



### Scouting

In previous years, our scouting team consisted of a manager, 9 scouters, and a messenger. Six of our scouters stay in the stands and each have their own team to follow during each of the matches. They write down the stats of the team onto a slip of paper, then after each match the messenger collects all of the papers

and delivers them down to the pit area where they are entered into the computer. Our other 3 scouts are placed into the pit area to get a deeper knowledge of each team's robot's capabilities. They collect the data and give it to the captain to be used during the alliance selection. The scouting manager makes sure that everyone is on tasks and scouts when a scouter needs to leave the stands or pit. This year, we are in the process of developing an app to help us easily deliver the stats after each match from the bleachers to the pit area.

## Alumni

**Upon graduating, our members have attended the following colleges:**

- Amherst College
- Boston University
- Brown University
- Carnegie Mellon University
- Camden County College
- Columbia University
- Cornell University
- Dartmouth College
- Delaware Valley College
- Drexel University
- Haverford College
- Hofstra University
- John Hopkins University
- Massachusetts Institute of Technology
- Monmouth University
- New York University
- New Jersey Institute of Technology
- Princeton University
- Pennsylvania State University
- Rowan University
- Rutgers University
- Stockton University
- Temple University
- The College of New Jersey
- University of Delaware
- University of Maine
- University of Maryland
- University of North Carolina
- University of Pennsylvania
- Virginia Polytechnic Institute



- Worcester Polytechnic Institute
- York College

## Awards

- Johnson & Johnson Mid-Atlantic Regional- Daimler Chrysler Team Spirit Award (1998)
- The Championship Event- Imagery Award (2002)
- Johnson & Johnson Mid-Atlantic Regional- Imagery Award (2002)
- Chesapeake Regional- Motorola Quality Award (2005)
- Chesapeake Regional- Regional winners (2007)
- Chesapeake Regional- Underwriters Laboratories Industrial Safety Award (2009)
- Hawaii Regional sponsored by BAE system- Imagery Award in honor of Jack Kamen (2009)
- Philadelphia Regional- Industrial Safety Award sponsored by Underwriters Laboratories (2011)
- Rutgers University FIRST Robotics District Competition- Regional Finalists, Team Spirit Award sponsored by Chrysler (2012)
- Lenape FIRST Robotics District Competition- Team Spirit Award sponsored by Chrysler (2012)
- TCNJ FIRST District Competition- Team Spirit Award sponsored by Chrysler (2013)
- Lenape- Seneca FIRST Robotics District Competition- Team Spirit Award sponsored by Chrysler (2013)
- Mid-Atlantic Robotics FRC Region Competition- Team Spirit Award sponsored by Chrysler (2014)
- MAR FIRST Robotics Springside Chestnut Hill District Competition- Industrial Safety Award sponsored by Underwriters Laboratories, Team Spirit Award sponsored by Chrysler (2014)
- MAR FIRST Robotics Lenape-Seneca District Competition- Industrial Safety Award sponsored by Underwriters Laboratories, Judges' Award (2014)
- MAR FIRST Robotics Springside Chestnut Hill District Competition- Team Spirit Award sponsored by Chrysler (2015)
- MAR FIRST Robotics Lenape-Seneca District Competition- Entrepreneurship award sponsored by Kleiner Perkins Caufield and Byers (2015)
- Mid-Atlantic Robotics FRC Region Competition- District Championship winner (2015)
- MAR FIRST Robotics Hatboro-Horsham District Competition- Entrepreneurship award sponsored by Chrysler (2016)
- MAR FIRST Robotics Springside Chestnut Hill District Competition- Excellence in Engineering award sponsored by Delphi (2016)
- MAR FIRST Robotics Seneca District Competition- Chairman's award (2017)