

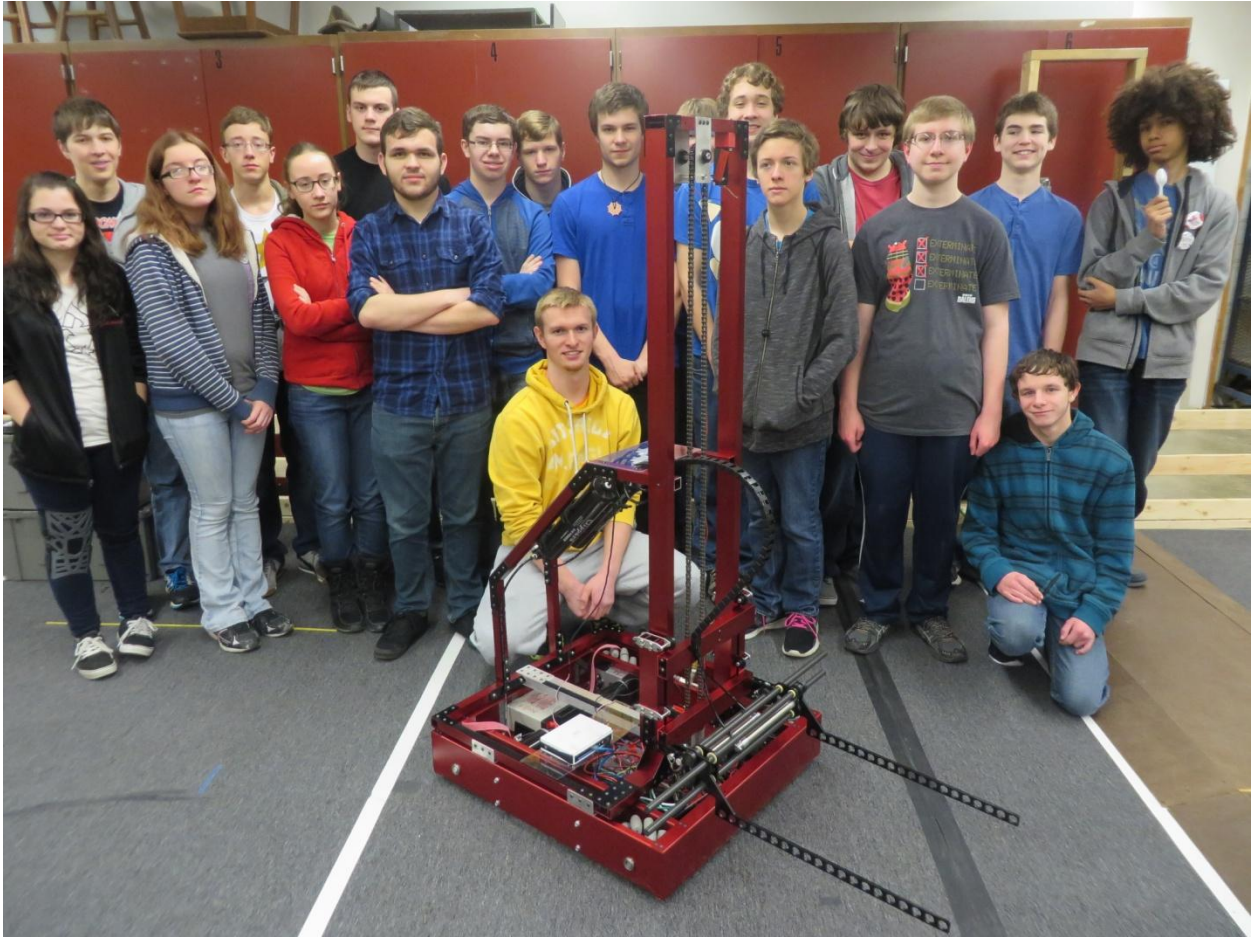
Tribe Tech Robotics

FRC #4485

Business Plan



Team Mission Statement:



Tribe Tech's mission is to promote awareness, interest, understanding, and skill in the fields of engineering and technology. We seek to develop critical thinking skills, perseverance in the face of obstacles, and team building skills. We accept all interested students and encourage all members to participate fully in all aspects of the team.

Team History

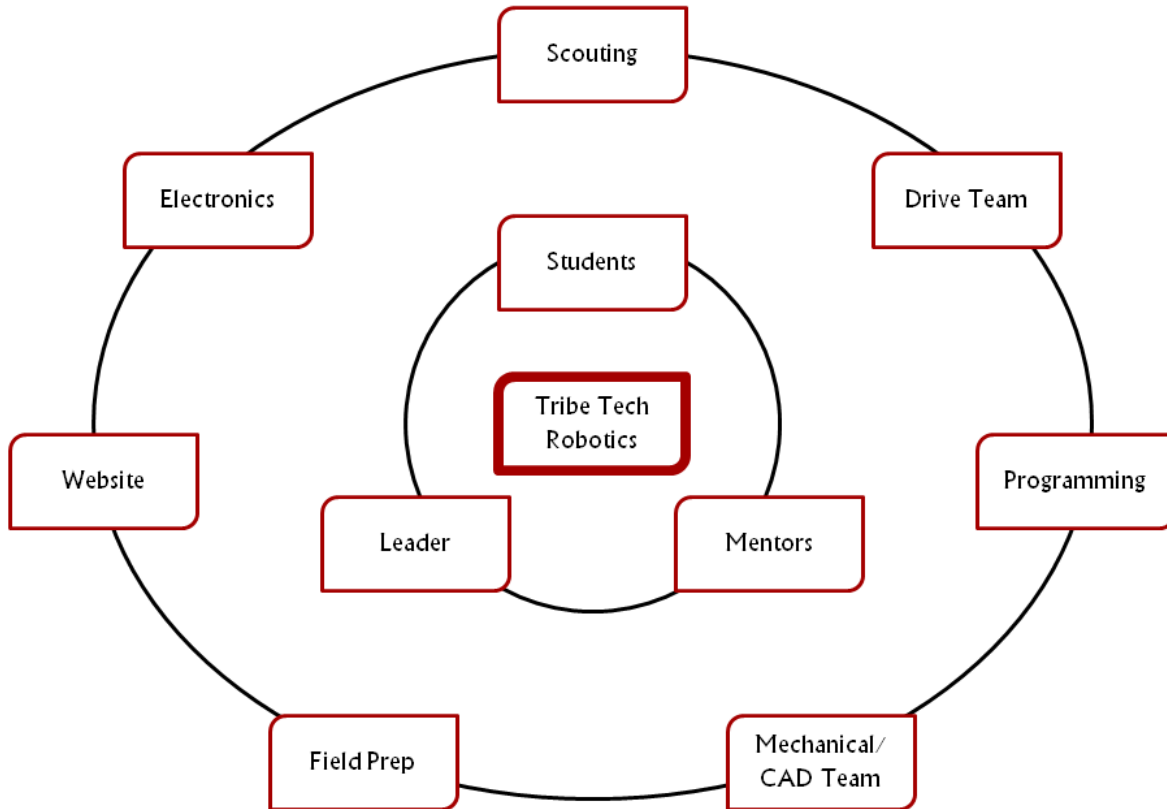
Tribe Tech Robotics Team 4485 began its FIRST journey during the 2012-2013 school year. The idea of starting a team was proposed by a Danville Community High School student, David Shaw. He convinced counselor, Mike Klinker to supervise the club and bring the FIRST Robotics experience to the students of DCHS. Since its humble beginnings working out of an old photo developing classroom with little knowledge or experience with robotics, our program has developed drastically in many aspects. We now have 28 dedicated students and 9 adult mentors with diverse backgrounds that help make us a well rounded team.

A large and vital part to our successful program is the many sponsors that have supported the team from the start. NASA was our founding sponsor and donated enough money to fund our entry fees for our entire first season. Major Companies from Indianapolis such as Allison Transmission and Rolls-Royce have also provided ongoing generous donations that allow us to purchase the technology and supplies we need to compete each season. The town of Danville may be one of the biggest supporters of our robotics program. Duke Energy, Danville Optimist, Danville Education Foundation, Hendricks Regional Health, and Waste Management are some of the many local companies that donate to our robotics program.

Tribe Tech Robotics is very involved within our community and with other FIRST teams. We have collaborated on mechanism designs with Ben Davis High School and shared parts and supplies with Avon High School. We have also recently started robotics programs at our elementary and middle schools in our district. Each school had over 30 participants. In addition, this past summer members Tribe Tech Robotics FRC #4485 also hosted a robotics camp for over 50 elementary age students.



Organization Structure



The organizational structure of Tribe Tech Robotics is simple. The leader of the group is the director of guidance at the high school. He works with our mentors and student leaders to make sure the group gets tasks done according to what needs to get done. Everybody works in conjunction with each other to make decisions for the team.

The team is divided into groups: the mechanical/CAD team, the drive team, the electronics team, the programming team, and the technical team. They all work to attribute to the group and to build the robot. The mechanic team assists with manufacturing, drawing parts in CAD, and assembling the robot. The electronics group assembles electronics for the robot. The programmers are responsible for all coding of the robot. We also have a web design team. For funding, we have sponsors who have donated money and any additional money we need we gather through fund raisers. Everyone on the team is aware of our budget and where we spend our money.

Team Resources

Team resources are used to spread the word about FIRST, introduce robotics to students, and ensure that team members will benefit from their experience on a FIRST team. Effective short-term management of resources also benefits the long-term organization of a FIRST team.

One way resources are used is to spread the message of our FIRST team and robotics in general. Demonstrations of our robots were provided for various groups including our local Optimist Club and our school board. Also, two weeks during the summer, FRC 4485 hosts an elementary robotics camp that teaches students the basics of competing on a robotics team. The main purpose of this summer camp is to get students interested in robotics and participating on a FIRST team. Students learn about the game in which they are participating and completed robots compete against each other to see whose design performs the best. This last summer, over 50 students participated in our two-week summer camp. This summer camp succeeded in its goal of inspiring students to join a robotics team.

Communication within the team is very important, especially during the build season and the weeks before competitions. Earlier this year, members from 4485 went to one off-season invitational and a conference at Purdue University. Our team leaders and mentors have encouraged the students throughout the season to maintain good lines of communication between each other. Students communicate between each other and with leaders and mentors through their school provided Gmail account.



Financial Statement

Expenses

First district entry fees:	\$5,000
Robot materials:	\$3,000
Team shirts:	\$500
Pit materials:	\$250
Misc:	\$500
Field materials:	\$500
Indiana district state competition:	\$4,000

Total Expenses: **\$13,750**

Income

Summer camp program:	\$4,000
Elementary and middle school robotics programs:	\$500
Rolls Royce:	\$3,000
Indiana Department of Education:	\$3,450
Allision Transmission:	\$1,500
Duke Energy:	\$1,000
Danville Optimist:	\$500
Danville Education Foundation:	\$1,000
Team fees:	\$750

Total Income: **\$15,700**

S.W.O.T.

Strength, Weakness, Opportunity, and Threat

Strengths	Weaknesses
<ul style="list-style-type: none"> ● Long term mentors ● Dedicated work space ● Middle School Program ● Sponsor Support ● Enthusiastic Lead Mentor 	<ul style="list-style-type: none"> ● Little School Support ● Little/No Fundraising ● Male to Female Ratio ● Limited Funds ● Lack of Discipline
Opportunities	Threats
<ul style="list-style-type: none"> ● Community Outreach ● School Announcements and Media ● More Fundraising ● Cooperation with Local Teams 	<ul style="list-style-type: none"> ● Sponsors Withdrawing Support ● Running Low On Money/ “Defaulting” ● Unprofessionality Causing Accidents

What we can do to **Exploit Our Strengths** and **Fix Our Weaknesses**:

- **Long Term Mentors**- Encourage our mentors to stick with the program and recruit additional mentors
- **Dedicated Work Space**- Maintain our workspace and **keep it clean** so we can still have access to it in the future
- **Middle School Program**- **Expand** the program so we count on more members in the future
- **Sponsor Support**- We can **provide presentations and feedback** to our sponsors so that they will continue to sponsor us
- **Enthusiastic Lead Mentor**- *Keep Mr.Klinker around*

What we can do to **Take Advantage of Our Opportunities**:

- **Community Outreach**- Have **public showings** of robots and **advertise** through other events
- **School Announcements and Media**- A small announcement at the bottom of the announcements won't catch anybody's eye. ***We need to be seen.*** We could advertise how we provide a practical and hands on method of gaining engineering experience that is beneficial to their careers.
- **More Fundraising**- We really could do **more fundraising in the fall season** when we are not very active. We need to **find a niche in fundraising** that the other programs **have not exploited.**

- **Cooperation with Local Teams**- We could cooperate more with local teams by **assisting them.** We could also have team meetings where we can get to know other teams?

What we can do to **Address Our Weaknesses:**

- **Little School Support**- There isn't too much we can do about this because our school doesn't have a lot of money.
- **Little/ No Fundraising**- *Addressed above.*
- **Male to Female Ratio**- We can ask our current female members to recruit their friends. We could also maybe have a small **“campaign”** so to speak, encouraging girls to join robotics.
- **Limited Funds**- *Expanding fundraising activity as previously mentioned.*
- **Lack of Discipline**- We need to have a set of rules that **HAVE TO BE FOLLOWED,** and have a **penalty system** that is **consistently upheld.** We could also have **team manager/captains** to help **maintain order and keep people working and not fooling around.**

What we can do to **Address Threats:**

- **Sponsors Withdrawing Support**- We can make sure, as previously mentioned, **provide presentations and feedback to our sponsors** to make sure they stick with us.
- **Running Low on Money/ “Defaulting”**- Fundraising is **crucial** to get us to a point where we would be able to have enough money to run the program for a season with no funds coming in.
- **Unprofessional behavior**- *Addressed above*

