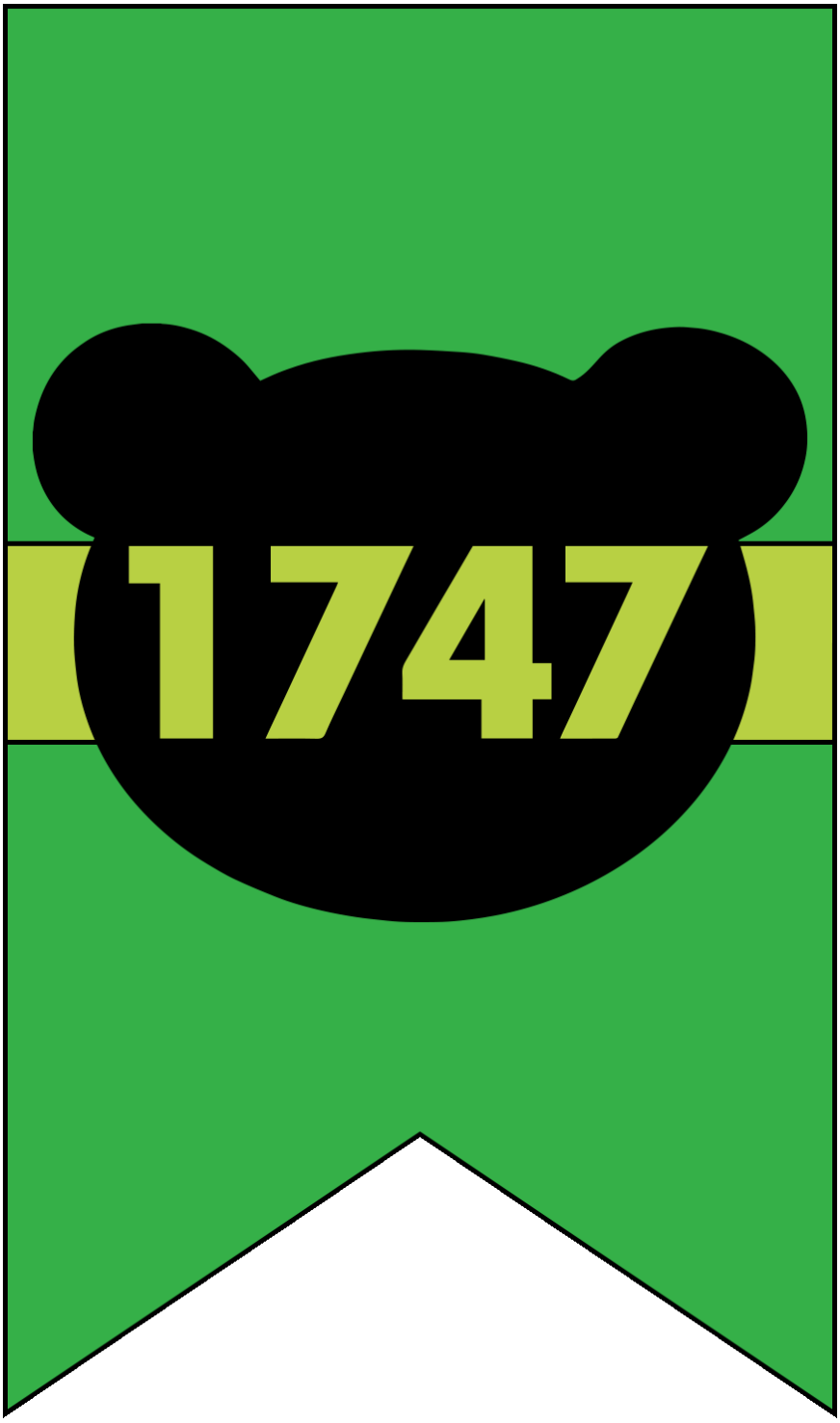


# Business Plan

**2018**

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# Section 1 – Executive Summary

## 1.1 Mission Statement

***FIRST***® Team 1747, Harrison Boiler Robotics, will operate in the spirit of ***FIRST***®, promoting a strong and unified team which works together to accomplish its worthwhile goals. ***FIRST***® Team 1747 will promote Gracious Professionalism, inspiring the core values of ***FIRST***® in future generations.

## 1.2. Vision Statement

***FIRST***® Team 1747, Harrison Boiler Robotics, is dedicated to creating a world that values science and technology; where patience and responsibility are encouraged; and where young people are inspired to become the leaders of tomorrow.

## 1.3 Team at a Glance

- Team Name: ***FIRST***® Team 1747, Harrison Boiler Robotics
  - Also known as: HBR
- School Corporation: William Henry Harrison High School
  - Tippecanoe School Corporation
  - West Lafayette, Indiana
- Founding Year: 2005, Rookie Year: 2006 – Aim High
- Team Founders: Rosie Barnett - a biology teacher at Harrison High School, and a group of highly dedicated students.
- Corporate Sponsors: Purdue ***FIRST***® Programs, Caterpillar, Unity Surgical Center, William Henry Harrison High School
  - Our sponsors provide us with talented mentors, funds, in kind donations, and the space in which we work. In return we thank them profusely as we further an interest in science and technology that provides them with a skilled future workforce. We also advertise for them on our robot, t-shirts, and at events we attend.
- Team Size: 33 Students, 18 Mentors

## 1.4 Team History

Team 1747, Harrison Boiler Robotics (HBR), was founded in the spring of 2005 in West Lafayette, Indiana. A science biology teacher, Rosie Barnett, and several students worked through the summer and early school year to obtain school approval and funding.

Because ***FIRST***® was not on the Secondary School Principal List of Approved Activities, the team and teacher sponsors had to use unexcused absences on trips to competitions. FIRST Team 1747 is worked with the School Board to put ***FIRST***® on the list. In addition to this hurdle, the Tippecanoe School Corporation refused any school computers to be used by the team. Many obstacles appeared on the horizon, mainly being lack of support from the school corporation, but the fledgling crew pushed forward.

## 1.5 Team Growth

Harrison Boiler Robotics has continued to grow exponentially both in student commitment and commitment to our community. We have grown from a small group of highly dedicated students and one teacher mentor to a team of fifty-two students and eighteen mentors! We have also expanded beyond the walls of our school, bringing ***FIRST***® into the other high school in our district, many middle and elementary schools, and even to other parts of the world!

## 1.6 Future Plans

Ultimately, our future plan is to introduce as many people as possible to ***FIRST***® through outreach, demos, and assisting in the creation of new teams within our district, county, state, and world. Our future plans also include all of our goals in Section 3.

## 1.7 Services Rendered

### 1.7.1 For Our Members

With our mentors, we learn skills, overcome obstacles and find who we really are. On ***FIRST***® team 1747, Mentors are the backbone to our team. We go to mentors for robot help, school help and any other things that a student may need. Parent mentors give students a line and expectation to follow, and as students we follow the rules set. That makes a better team. Through working with our mentors, the students of ***FIRST***® Team 1747 gain many transferable skills such as public speaking, time management, and respect for careers in science, technology, engineering, and math. Due to this, 100% of students who participate in robotics graduate high school and continue on to postsecondary education.

### 1.7.2 For Our Mentors

Our team offers the perfect creative outlet for many adult professional engineers. Many of our adults find working with high school students rewarding. They are given the opportunity to share their love for STEM fields with a new generation and often our college mentors earn opportunities to intern at the workplaces of many of our professional engineers.

### 1.7.3 For Our Community

Our team completes many outreach activities that give our community the opportunity to explore science and technology through the robotics team.

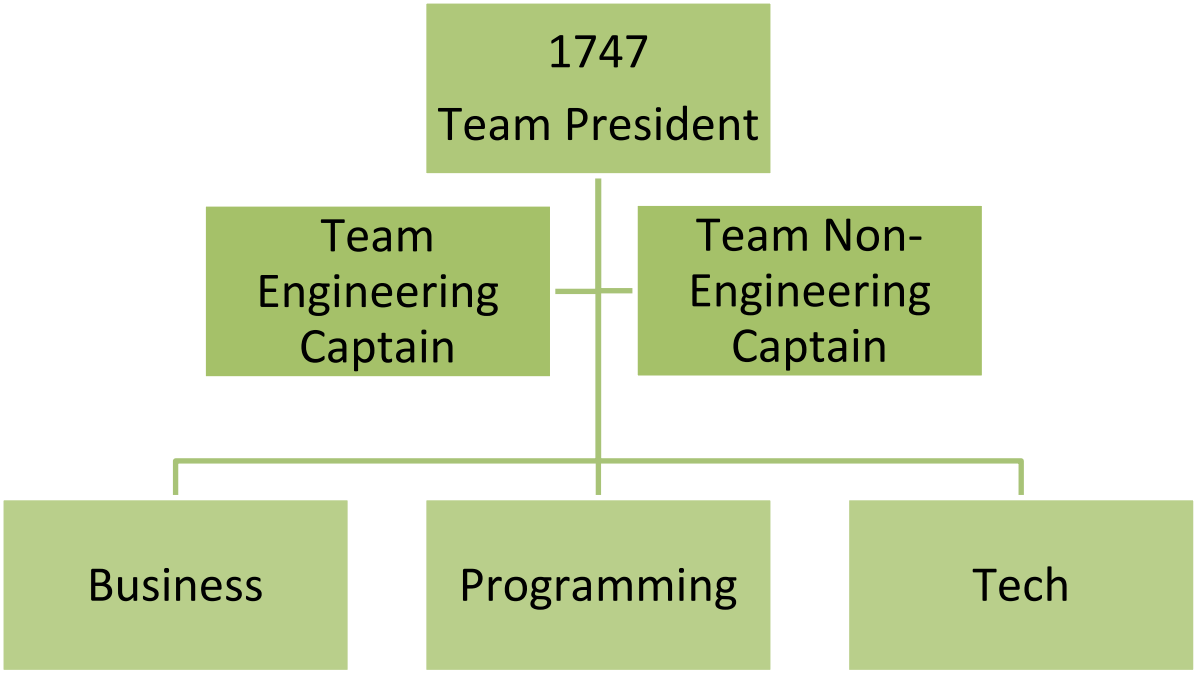
Since 2015, we reached over 170,000 people with these events. Some examples of these from are:

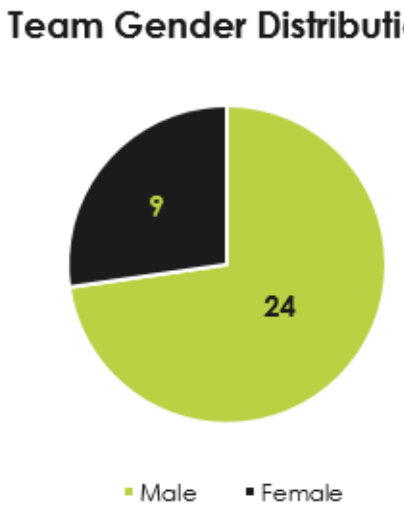
- Indianapolis Children's Museum Demo: Children interacted directly with our robot and team
- Anti-Drunk Driving Campaign: We built pedal cars for a convocation to advocate safe driving habits

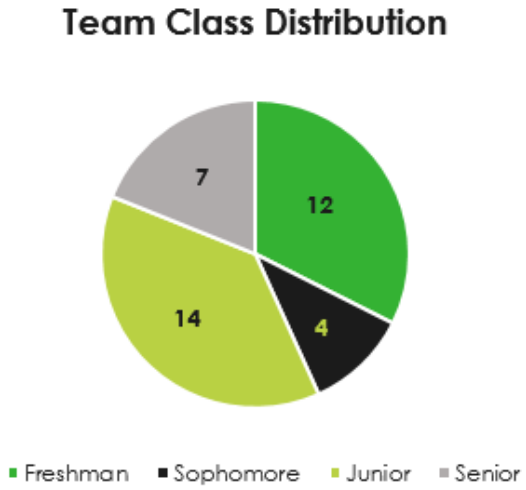
- Indy PopCon: Made FIRST a part of pop culture with robot demonstrations
- Boy Scouts of America: Programs for scouts to learn about STEM
- Reach out and Read: Donated over 2500 books
- Celebrate Science: Demonstrated STEM to audiences of all ages
- FIRST Forums Presentations: Presented to fellow members of the FIRST Community
- Maker Space: Created a Maker Space at a local STEM museum
- Museum of Science and Industry: Part of National Robotics Week Celebration

# Section 2 – Team Structure

**2.1 Student Member Structure**



## 2.2 Student Member Expectations

The Harrison High School Robotics Team (aka. ***FIRST***® Team 1747, Harrison Boiler Robotics) is an extracurricular program at Harrison. The expectations of the team members will be the same as for all other school sponsored teams or clubs. Consult your Harrison student handbook for further information and specific rules. The following rules will also apply:

### 2.2.1 Grade Requirements

Robotics competitions and related activities will likely result in student absences from school. Students are expected to keep their grades up and complete all makeup work in a timely manner. Students are required to arrange for makeup work in advance with their teachers. Robotics will not be used as an excuse for missed assignments or poor grades. Grade checks must be submitted every Thursday during build season and as requested by Doug Klumpe throughout the year. Parents may be contacted as necessary.

### 2.2.2 Attendance

To be eligible for travel with the team, members must attend a minimum of 50% of the normal meeting during the 6 week build season (January-February). Attendance at optional meetings counts towards your total hours but does not count against you if not attended. Valid excused absences include: health problems, family emergencies, religious activities, or other as determined by mentors.

### 2.2.3 Behavior & Dress Code

Team members are expected to demonstrate Gracious Professionalism by showing respect for all teams, people, and property. Appropriate dress and language will be standard practice for team members during meetings, activities, and competitions (see school dress code). For anyone entering the machine shop or build room additional clothing, special safety equipment, and hair restrictions apply (see safety rules).

Team members will treat other members, parents, chaperones, mentors, and teachers with respect at all times. Team members will treat school property, team property, and others' property with respect.

During competitions, members are expected to sit together with the team and to cheer and support all other teams. Negative comments or noises are not considered Gracious Professionalism. Team apparel is to be worn at all times during competitions, including when the team goes out for meals and/or sightseeing. Students must always stay with their assigned mentor or chaperone. Chaperones can, and will, inspect items brought by students to competitions to verify that there is no contraband or inappropriate material. No drugs, alcohol, tobacco, weapons, or inappropriate movies.

## 2.3 Student Leadership Expectations

### 2.3.1- Team President

- In charge of the overall decisions of the team's direction and vision
- Runs the day-to-day operations of the team
- Acts as the liaison between the students and the mentors

### 2.3.2- Team Engineering and Business Vice Presidents

- In charge of the overall decisions of each side of the team.
- Runs the day-to-day operations of their sub-team
- Acts as the liaison between the students of their sub-team and the whole team

### 2.3.3- Secretary

- Responsible for student attendance
- Coordinates activities via electronic notification services (e-mail, pinwheel, etc)
- Responsible for running the meeting if the President is absent

### 2.3.4 CAD Lead

- Work with Tech to create digital versions of parts and robot
- Able to use online libraries to make quick as possible
- Assist to tech in creating a robot out of the digital model so they know how things will fit together
- Work with people who have engineering knowledge and be able to design a model that it is realistic

### 2.3.5 Supreme Dictator Overlord of Programming

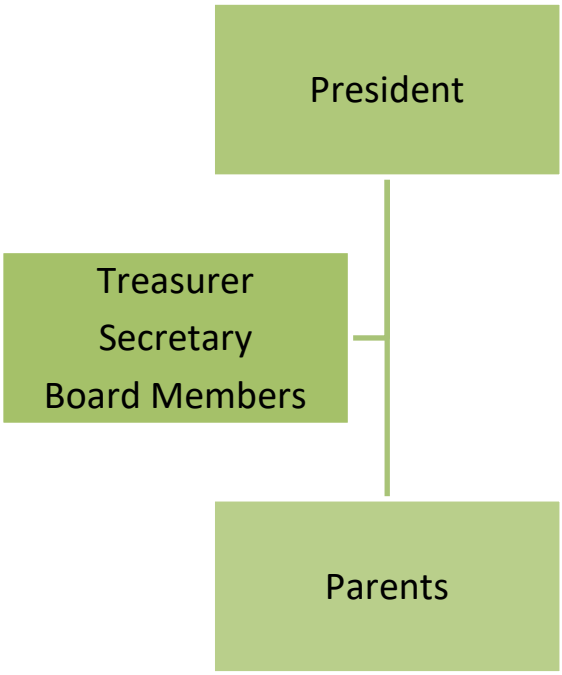
- In charge of the design and creation of the robot's programming
- Responsible for overall programming systems knowledge
- In charge of training others about programming techniques and knowledge
- In charge of the design and building of the robot's electronic system
- Responsible for overall electrical systems knowledge
- In charge of training others about electrical parts and their uses

### 2.3.6 Business Lead

- In charge of the team's outreach activities
- Responsible for overseeing the team's award submissions (Woodie Flowers, Chairman's, Etc.)
- In charge of training others about how to coordinate public relations activities

- In charge of the team's website
- Responsible for creating the team's animation submission
- In charge of training others about how to manage the team website

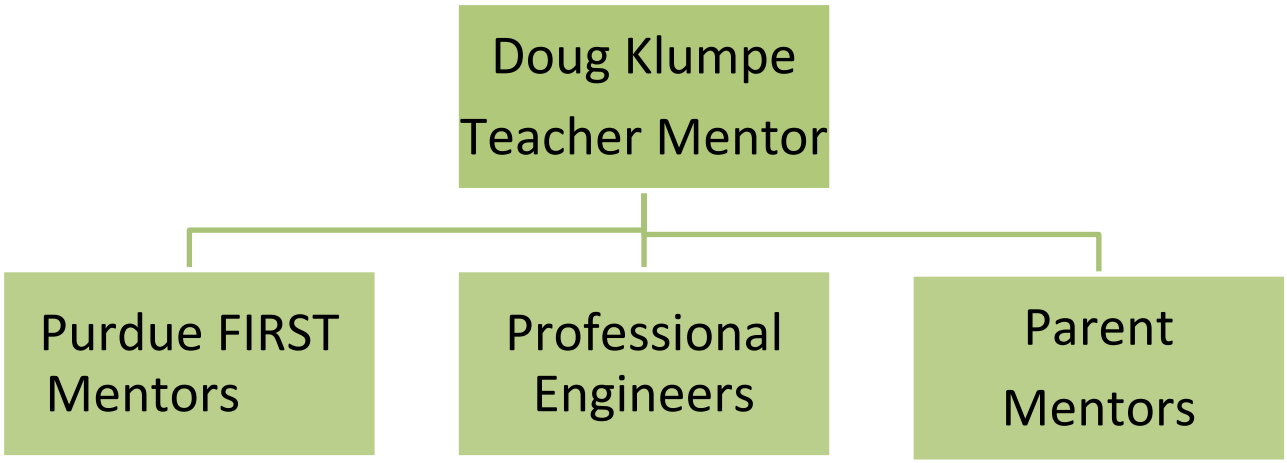
## 2.4 Parent Booster Structure

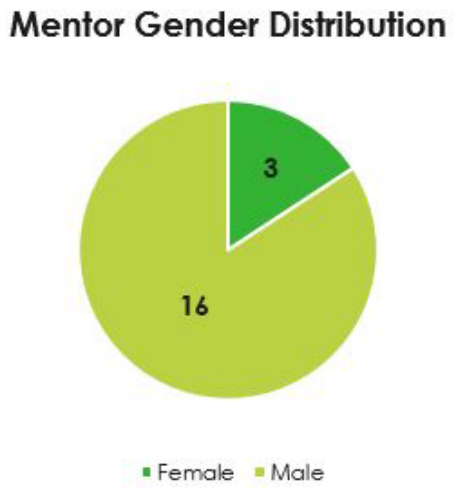


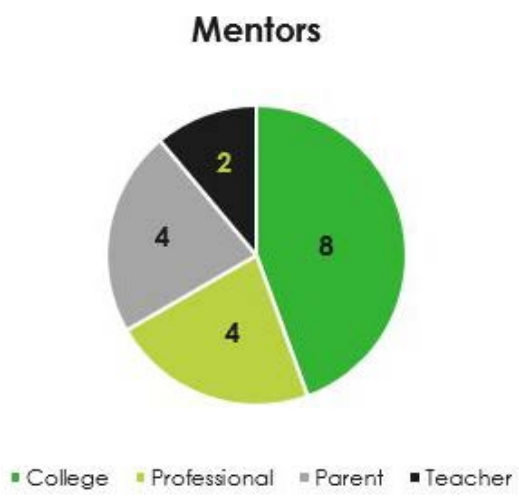

## 2.5 Parent Booster Expectations

The Harrison High School Robotics Team Parent Boosters was created to assist and manage funding for Harrison Boiler Robotics. See the Parent Boosters' Bylaws, for more information.

## 2.6 Mentor Structure




## 2.7 Mentor Expectations

The goal of the mentor is the development of students, rather than optimization of the robot. A few quotes (with minor edits) from the ***FIRST***® mentoring guide are particularly good at describing mentorship on 1747:

- Be Safe. When there is a safety issue, give immediate feedback to your team members, even at the risk of embarrassing them. Take them aside later and explain that you care about what happens to them and that you were worried about their safety, so you had to speak up to prevent injury.
- Mentoring is the process by which an experienced person provides advice, support, and encouragement to a less experienced person.

- Step back to allow students the opportunity to make choices, both good and bad.
- Successful mentoring can help optimize everyone's learning experiences by open communication within the team, fostering a reciprocal foundation of trust and respect, encouraging effective facilitation, promoting independent thought, and developing roles within the team.
- Treat all ideas as equal
- Resist any impulse to judge ideas
- Motivate and engage Harrison students in meaningful activities.
- Have the Harrison students do as much work as possible.
- Show trust in, and respect for, every team member and his/her ideas.
- Encourage Harrison students to take risks and invent.
- Resist doing most of the talking even if you know the correct answers. When communication is "one way" and the mentor/coach has all of the answers, other team members will not feel valued.

## 2.8 Recruiting New Members

HBR has been a family activity; we have had many students join the team because their older siblings were on the team. If they don't come to the team through family, we have many recruiting strategies. Every year before school starts, Harrison High school has a freshman orientation called Raider Rally. About 300 freshmen attend this program, making this a great opportunity for us to attract students to robotics. At this event we drive our robot around during their tour of the school to get new students excited about ***FIRST***®. When the school year starts our team has callouts allowing students to learn what ***FIRST***® Robotics is about and how exciting it can be.. Many of our students also come to the team as they move through the continuum of ***FIRST***® programs and join from our many ***FIRST***® LEGO League teams.

# Section 3 – Goals

## 3.1 Within One Year

- Create two Jr. FLL Teams within Tippecanoe School Corporation
- Create five additional FLL Teams within Tippecanoe School Corporation
- ***FIRST***® Class as part of the curriculum at Harrison High School
- Increase Team recruiting focusing on diversity
- Update Equipment in the Harrison Shop
- Increase Community Partnerships
- Obtain 3 more Corporate Sponsors

## 3.2 Within Three Years

- Create five Jr. FLL Teams in Tippecanoe School Corporation
- Create nine additional FLL Teams in Tippecanoe School Corporation
- 35% of the Team Female
- Varsity Letters at Harrison High School in Robotics
- Team continues to purchase equipment for Harrison Shop
- Obtain five additional Corporate Sponsors

## 3.3 Within Five Years

- Sixteen ***FIRST***® Teams in Tippecanoe School Corporation
    - FLL Team at every Elementary School and Middle School
    - Jr. FLL in every Elementary School
- 50% of the Team Female
- Fully-stocked, robotics-specialized shop for class use.

## 3.4 Completed Goals

- Create five FLL Teams within Tippecanoe School Corporation
- ***FIRST***® Class as part of the curriculum at McCutcheon High School
- Increased Team Recruiting
- New Mill Purchased for Team

# Section 4 – Financial Plan

## 4.1 Income

| Item | Amount | Description |
|---|---|---|
| Student Dues | $10400 | $200 per student to cover room and board |
| Team Fundraisers | $1257 | Money from Butter Braids, etc |
| Caterpillar | $5000 | Pays Entry Fee for Districts |
| Unity Surgical Center | $2000 | Pays Entry fee for Buckeye Regional |
| Purdue University | $5000 | For travel and team expenses |

**Total: $ 23,657**

## 4.2 Expenses

| Item | Amount | Description |
|---|---|---|
| CAGE MATCH Registration Fee | $250 | Cost of Entrance Fee for CAGE Match |
| District Entry Fee | $5,000 | Registration fee for the Districts |
| District Championship Fee | $5,000 | Registration fee for the District Champs |
| World Champs Entry Fee | $5,000 | Registration Fee for World Champs |
| World Champs Travel Fees | $4,000 | Transportation and Hotels for World Champs |
| Robot Expenses | $2,000 | Cost to build the robot |

**Total: $22,500**

## 4.3 Savings

All remaining funds will be placed into a savings account to be applied to the following year's build season.

# Section 5 – Risk Assessment

**Risk: Loss of Build Room**

- Likelihood: Low because our Superintendent and Principal show great interest in expanding our ***FIRST***® Robotics program
- Impact: Moderate because we would lose time and organizational ability that we have due to having our own work area.
- Sustainability Plan: We would resume use of the paper supply closet we had previously used as the base of operations in many previous years.

**Risk: Loss of a Major Sponsor**

- Likelihood: Moderate due to the probability of losing sponsors when the students affiliated with the procurement of the funds graduates.
- Impact: High because it is quite problematic to run a team on a low budget plus it would be difficult to try to find a replacement sponsor due to the high saturation of ***FIRST***® teams in our area
- Sustainability Plan: We would increase the amounts of dues and fundraising required by the team members. We would also expand our efforts to find new sponsors as well as innovative ways to cut expenses.

**Risk: Loss of Teacher Mentorship**

- Likelihood: Low because our current teacher mentor is highly involved in the program and within the school.
- Impact: High because our current teacher mentor is our primary connection to our high school. Without him, we are likely to lose the connections we currently have.
- Sustainability Plan: Our team would function on solely parent mentor and professional mentor guidance until another suitable teacher mentor could be found.

**Risk: Loss of a large number of members**

- Likelihood: Moderate due to the ever fluctuating interest in science and technology and due to the four year cycle of high school learning.
- Impact: Moderate because although it is greater to impact a large body of students, the team can operate with a few core members.
- Sustainability Plan: We would increase the amount of call-outs that our team hosts as well as increase the frequency of robotics meetings to accomplish our goals.

**Risk: Embezzled funds**

- Likelihood: Low because the treasurer of the team is usually someone who has been involved in the team for many years and has great interest in the team's success.
- Impact: High because without funds it is challenging to run a team and we would have to take many steps to prevent future issues
- Sustainability plan: We would alert the proper authorities to the issues. We would create new bank accounts where each person who has access to the accounts is bonded and insured. We would also have to work in procure more funds.

**Risk: Loss of School Partnership**

- Likelihood: Low because the Superintendent is currently highly interested in expanding ***FIRST***® throughout our district.
- Impact: High because our school functions as our base of operations as well as our build area. There are few places within the community that offer such an advantageous place to work.
- Sustainability plan: We would contact other local ***FIRST***® teams to consider sharing a space. We would also contact local area businesses to see if we could rent space and equipment. We would consider having separate meetings based on the activities each group is performing to prevent overcrowding of locations.

**Risk: Loss of Student Leadership**

- Likelihood: Low because the leadership positions are given to students who are active within the team.
- Impact: Low because we would lose their knowledge and expertise but it is not difficult to find good leaders amongst our team's members.
- Sustainability plan: We would hold another election for the positions.

# Section 6 – Execution

## 6.1 Execution of Community Service

The best description of our execution of community service can be found in the essay we submit yearly for the Chairman's Award. Here is a copy of our 2018 Chairman's Award Submission:

When FIRST Team 1747, Harrison Boiler Robotics, first saw that the definition of the Chairman's Award said, "Measurable growth," we decided to run with it. We counted the number of people who drove our robot. We counted the number of people we spoke to and encouraged to join teams, start teams, run with dreams, or just be awesome in general. We measured the miles we traveled, the smiles it brought, and the generations of future scientists, technologists, engineers and mathematicians that began to unfold. And after the first year, it began to mean so much more.

After mesmerizing 171,317 people, we are seeing that you can measure impact in so many more ways than just counting the number of people...

**Measure in Smiles**

STEM lights up our lives, and there's nothing we love more than using STEM to bring smiles to others. Impact starts with engagement, so Harrison Boiler Robotics has taught annual camps of Sumo Bots, hosted years of Bristle-Bot battles, and enriched several semesters' worth of curriculum with robots. Our STEM camps for Cub Scouts were even the first activity in recorded history to rank #1 over food as the Scouts' favorite pastime!

We are expanding FIRST's relationship with the Maker community by sparking interest at Conner Prairie, Barnes & Noble, and LEGO BrickWorld, inspiring not only students to join teams, but finding adults to lead them.

You can find FIRST Team 1747 creating smiles in many new and unique ways. We advertised robotics as a sport at a local Lafayette Aviators baseball game. We put robots in the limelight in a viral Lip Dub video viewed by over 2,000 people. We strolled for several laps with a robot in Relay for Life.

We are bringing smiles to brand new audiences. Garrett Wang from Star Trek: Voyager; race car drivers Justin Wilson and Josef Newgarden; filmmaker Freddie Wong; MMA Fighter Dennis the Menace; and even PBS's Sid the Science Kid have all driven our robot to generate excitement for STEM among their fans.

Beyond just robots, we have donated more than 3,000 books to "Reach out and Read", more than 10,000 items to the Ronald McDonald House Charity, and approximately 700 old game pieces to animal shelters for underprivileged dogs!

This year, we fabricated and installed a brand new MakerSpace for a local STEM museum where we frequently volunteer. This space sees over 1000 visitors per month and is used by other local FIRST teams for demos of their own, ushering in the next generation of teams inspiring others. We have created 273,071 smiles, and these efforts will continue.

**Measure in Distance**

Like ripples in a pond, spreading STEM starts at home. A mere 516 feet from our shop door, we host the FIRST Robotics Competition Tippecanoe District Event. It is the largest event held at our school, with over 5,000 attendees annually.

Building on that excitement, inside those 516 feet, we have rivaled traditional sports teams by pitting robots against athletes in a pep session, wowed elementary students with school-wide convocations, and rallied robotics passion with community open houses. These nine events introduced 14,798 community members to our team.

Spreading continually outward, we have traveled upwards of 2,000 miles and partnered with organizations all over our state, country, and world. Each year, you can find us working with the Indy Racing League, Indiana State Fair, Indianapolis Motor Speedway, Conner Prairie, and the Indianapolis Children's Museum to bring new audiences to STEM. On a larger scale, we reach all-STEM audiences at Celebrate Science, a huge STEM Festival that makes science engaging for kids of all ages. Larger than that, Harrison Boiler Robotics is integrating FIRST into pop culture at Indy POPCon, the largest celebration of pop culture in Indiana.

Our favorite place to share our love of robotics is the Chicago Museum of Science and Industry, the largest science museum in the Western Hemisphere. There we have twice been a featured exhibit for National Robotics Week.

We are creating ripples in more than just our own pond, though; we are reaching new ponds - 12,000 miles away.

We are working with the Norwegian Ministry for E-Health to start FIRST Tech Challenge Teams in Tromso, Norway. Since Tromso is inside the Arctic Circle, they have difficulty getting parts expediently. They have a successful LEGO program, so we thought FTC, with its wider timeframe, would be a good fit for their next step. We are currently organizing a trip there to deliver the materials to get them started!

On the opposite end of the globe, we are assisting teams in South Africa. Teams there were having difficulty getting supplies through customs. We partnered with one of our sponsors, who also has facilities in South Africa, to work out a way to send parts.

We are always excited to bring FIRST to new places, spreading our love of STEM, and encouraging others to share our passion.

**Measure in Connections**

FIRST Team 1747 fully embraces coopertition, and we are dedicated to using gracious professionalism to make the FIRST community a better place.

In the interest of starting new teams and making all teams stronger, Harrison Boiler Robotics has shared how we operate as a team. New rookie team 7198 got a strong start by driving our robot at an off-season competition. For veterans and rookies alike, we have taught classes on writing engineering notebooks, recruiting team members, writing business plans, preparing for judging, fundraising, branding, and team organization. In addition to these classes, we share our build processes in mock designs and mock builds. During build season, we share our exact plan for the robot in a design review, allow local teams to use our space and field elements, and give them any parts they need from our inventory. When a local charter school closed, their team even moved into our space full-time.

Beyond the district event we host, we volunteer at events all over the state. Our students are behind the scenes of events at every FIRST level, logging more than 500 hours of volunteering, in the last two years.

We are strengthening FIRST by digitally connecting with teams all over the globe. Through social media and web content we have reached over 20 countries, and assisted more than 1,000,000 people.

FIRST robotics is truly a community, and we are motivated to play a part in strengthening that community. Through the many programs we have run, we have made more than 900 direct connections with teams around the world.

**Measure in Investments**

Developing passion requires investment, both on our part and on our community's.
We work hard to maintain relationships with the businesses that help us grow. To show our gratitude toward our sponsors, we have shared FIRST at family picnic events for Caterpillar Inc. and Cook Research employees. This has shown the employees how their company supports local organizations and has generated new students, mentors, and volunteers for FIRST across our county.

A wide variety of people benefit from their involvement with FIRST Team 1747, Harrison Boiler Robotics. Our sponsors, Cook Research and Caterpillar Inc., recruit from our team mentors for both internships and careers. This is beneficial to our young mentors who are students of Purdue University.

The structure of our team serves as a role model for all of the sports in our district. More than 15 adult coaches participate without being offered any kind of salary or stipend, rivaling the traditional sports model our school follows. Our program is so strong that after five years, we became a co-curricular activity with class credit offered for FIRST involvement at the other high school in our district. Additionally, our school utilizes the Robotics team's skills to make repairs around the school. We routinely repair scales for the athletic department, fabricate props for school functions, build vehicles for convocations, and have even machined new copies of parts that were missing from essential school equipment.

In addition to investing in our school and community, FIRST Team 1747 invests in the futures of our students. Presently, STEM careers employ only 24% women. To help solve the gender imbalance, our team launched a Women in STEM initiative that included: starting and mentoring two new all-girl FLL teams, partnering with the Society of Women Engineers, and assisting all-girl FIRST competitions. Presently, our team is 30% female, but our leadership is 50% female, and we hope our all-girl programs will fill the void to meet our goal of being 50% female by 2020.

In Indiana, minorities make up about 30% of the overall population, but only 6% of STEM professionals in the state. To work toward bridging this gap, we hosted three high school summer engineering camps for Purdue's Minority Engineering Program. We even emphasized the importance of the future of science by participating in the official state-wide March for Science.

The investments we have made play a huge part in the future of FIRST and STEM. We have inspired 15,087 people to continue in our journey to a brighter future.

**Measure in Love**

Our enthusiasm for robotics comes from our love of what we do. We're always looking for new ways to help, new services to provide, and new passion to ignite.

Our community programs and team ideals are so effective that as early as 2007 they began changing lives. Students have discovered our team as early as second grade. They fell in love and were so enthralled with STEM, they started or joined existing LEGO teams that we ran. They followed our progression of programs all the way through high school. This is the story of not one, not two, but three past team presidents.

Our STEM culture brought students to our team and inspires us to spread it to others through outreach. As we measure the miles we travel, the smiles it brings, the connections we make, and the generations of future scientists, technologists, engineers and mathematicians that are unfolding, we've reached 171,317 people and counting...

## 6.2 Awards

2006

- Boilermaker Regional
  - Rookie All-Star
  - Highest Rookie Seed
  - Most Student Involvement
  - Daily Safety Award
  - Best Low Goal Scorer
- Buckeye Regional
  - Rookie Inspiration
  - Highest Rookie Seed
  - Autodesk Visualization
  - New Guy Award
- Indiana Robotics Invitational
  - Spirit of Indiana

2007

- St. Louis Regional
  - Judges Award
- Boilermaker Regional
  - Regional Finalist

2008

- Great Lakes Regional
  - Judges Award
  - Best Hybrid Award
- World Championships
  - Safety Conscious

2009

- Boilermaker Regional
  - Engineering Inspiration
  - Teamwork
  - Gracious Professionalism
- Buckeye Regional
  - Event Winner
  - Engineering Inspiration
  - Best Shooter
- Cards and Goats Exhibition
  - Gracious Professionalism

2010

- Cards and Goats Exhibition
  - Finalist

2011

- Smokey Mountain Regional
  - Finalist
  - Team Spirit

2012

- Boilermaker Regional
  - Team Spirit
  - Best Shooter
- World Championship
  - CIA Safety First
  - Best Button on Curie

2013

- Boilermaker Regional
  - Regional Winner

2014

- Rock River Offseason Competition
  - Reach Out and Read
- Cards and Goats Exhibition
  - STEM Awareness

2015

- Indiana District Indianapolis Event
  - Gracious Professionalism
- Indiana District Purdue Event
  - District Finalist
  - Entrepreneurship Award
- Rock River Offseason Competition
  - Finalist
  - Most Enthusiastic
  - Reach out and Read

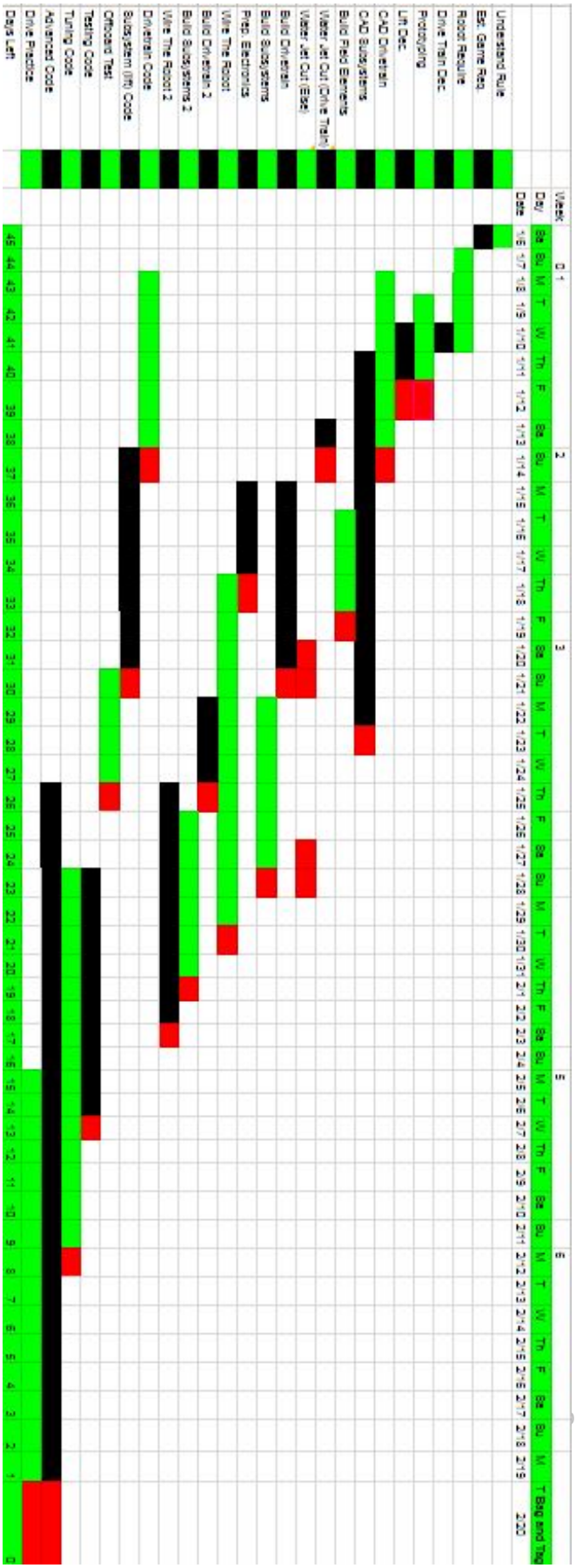
2016

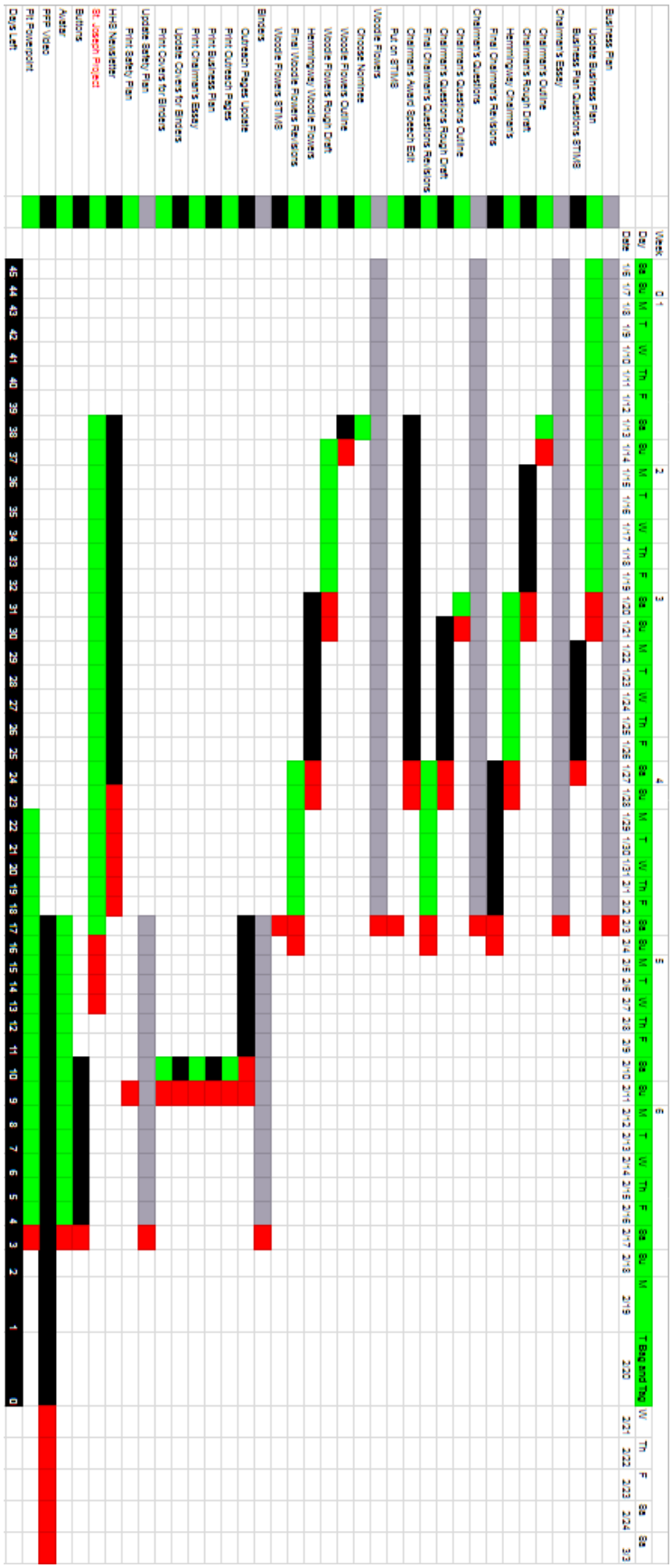
- Tippecanoe District Event
  - District Event Winner
  - Entrepreneurship Award
- Walker Warren
  - District Chairman's Award
- Perry Meridian Event
  - District Event Winner
  - Innovation in Control Award
- Indiana State Championship
  - Entrepreneurship Award

2017

- Tippecanoe District Event
  - Engineering Inspiration Award
- St. Joseph Event
  - Chairman's Award

# Appendix A


Understand Rule
Est. Game Req.
Robot Require
Drive Train Dec.
Prototyping
Lift Dec.
CAD Drivetrain
CAD Subsystems
Build Field Elements
Water Jet Cut (Drive Train)
Water Jet Cut (Else)
Build Drivetrain
Build Subsystems
Prep. Electronics
Wire The Robot
Build Drivetrain 2
Build Subsystems 2
Wire The Robot 2
Drivetrain Code
Subsystem (lift) Code
Offboard Test
Testing Code
Tuning Code
Advanced Code
Drive Practice
Days Left
Week
Day
Date
Bag and Tag


Business Plan
Update Business Plan
Business Plan Questions STIMB
Chairman's Essay
Chairman's Outline
Chairman's Rough Draft
Chairman's Edit
Hemingway Chairman's
Final Chairman's Revisions
Chairman's Questions
Chairman's Questions Outline
Chairman's Questions Rough Draft
Final Chairman's Questions Revisions
Chairman's Award Speech Edit
Put on STIMB
Woodie Flowers
Choose Nominee
Woodie Flowers Outline
Woodie Flowers Rough Draft
Hemingway Woodie Flowers
Final Woodie Flowers Revisions
Woodie Flowers STIMB
Binders
Outreach Pages Update
Print Outreach Pages
Print Business Plan
Print Chairman's Essay
Update Covers for Binders
Print Covers for Binders
Update Safety Plan
Print Safety Plan
HHS Newsletter
St. Joseph Project
Buttons
Atwater
FRP Video
Pit Powerpoint
Days Left
Week
Day
Date
Today and Tag