

2012



Business Plan & Team Sustainability Plan

Red Alert Robotics
FIRST® 1741

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Business Plan 2012

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Section 1- Mission and Vision

1.1 Mission Statement

FIRST® Team 1741, Red Alert Robotics, will operate in the spirit of **FIRST**® in our minds and actions. We will operate in **FIRST**®'s image with quality, safety, Gracious Professionalism™, and respect; inspiring future generations to incorporate the core values of **FIRST**® into their lives.

1.2 Vision Statement

FIRST® Team 1741 is committed. We are committed to the ideas and beliefs that being a part of **FIRST**® has instilled in us. **FIRST**® Team 1741 is committed to having a positive impact on the future of our students, our team, and our community. **FIRST**® has allowed us to grow as individuals and as a team through transferrable skills, hands-on experiences, and self-discovery.

1.3 Team History

FIRST® Team 1741 Red Alert Robotics is **located** at Center Grove High School in Greenwood, Indiana, USA. For the past seven years, since **our team began** in March of 2005, Red Alert has been led by a group of Students, Mentors, Parents, and the School Corporation, focused on spreading the Mission of **FIRST**®, “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”

In 2005 Center Grove School Corporation noticed a void in their school activities. There was no club that supported the growth of science and technology. Summer Ehresman, the McCoy family, and the Baxter family played an integral role in the development of **FIRST**® Team 1741, Red Alert Robotics. They were our **founding mentors**. Summer Ehresman, a computer education teacher at Center Grove High School, helped the team tremendously by teaching how to use several different computer programs and by being our school sponsor.

Linda McCoy and Sharon Baxter were not only the founding members of the Red Alert Robotics Parent Organization (an organization in which the goal is to support the activities of **FIRST**® Team 1741, Red Alert Robotics, established in 2008) but they were also the founding members of the Non- Engineering side. Along with these mentors, Steve McCoy and Dwight Baxter brought to life the legacy of **FIRST**® Team 1741 Red Alert Robotics by founding the Engineering side of the team. Since the founding year of **FIRST**® Team 1741, Red Alert Robotics has steadily grown. As of the 2012 season, **FIRST**® Team 1741, Red Alert Robotics, has grown to about 30 students and 20 mentors.



1.4 Quick Facts

- Team Name— *FIRST*® Team 1741 Red Alert Robotics
- Founding Year— March 2005
- *FIRST*® Rookie Year— 2006 (build season)
- Current Team Students— 31
- Number of Female Students— 7
- Team Mentors— 20
- Number of Mentors with no students on the team— 14
- Number of College Mentors— 2
- Number of Female Mentors— 3
- Major Corporate Sponsors— Red Alert Robotics Parent Organization, Center Grove Community School Corporation, Rolls Royce, Center Grove Education Foundation, Indiana Department of Education, Cummins.
- School Corporation— Center Grove High School
- Located in— Greenwood, Indiana
- Team Colors— Red, Black, and White
- Mascot—Trojan
- Logo- Gear
- Robot Names
 - 2006— The Revolver
 - 2007— Mantis
 - IRI— Nessie
 - 2008— Thaddeus
 - 2009— μ and Sherman
 - 2010— Scorpion and Kirby
 - 2011
 - Robots:
Sampson, Destroyer of Worlds and Squeaky
 - Minibots:
Heman, Master of the Universe and Pipsqueak
 - 2012

Section 2- What We Do/ Services Rendered

2.1-Opportunity Plan

FIRST[®] Team 1741 will achieve their goals by following these values:

1. **PRIORITY:** The top priority of the entire team is the development of student leaders.
2. **FOCUS:** Keeping the focus of the team on learning as well as inspiration of science, technology, and business, that will never be sacrificed for distractions such as winning.
3. **INVOLVEMENT:** Striving to always involve the students and community in our projects.
4. **COMMUNITY:** Teaching team members the importance of giving back to the community.
5. **MENTORING:** Mentoring our middle and elementary school students as positive role models.
6. **ACHIEVEMENT:** Promoting the importance of academic achievement at all times.
7. **PRIDE:** Encouraging students to have pride in their school, community, and team.

In One Year

- Update Equipment for both the Engineering and Non Engineering side
- Machining mentors to help design and produce parts
- Incorporate classes- both during the off season and build season times
 - **FIRST**[®], Inventor ,Programming, Design, Illustrator, 3DS Max, Photoshop, Photography/video, Marketing and Branding, Printing & Typography, Woodshop, Skills –Business, Public speaking
- Start an FLL team in every local elementary school
- Strengthen relationship between students and mentors
- Do at least three fundraisers prior to the begging of the 2012-2013 school year
- Better communication with Red Alert Robotics Parent Organization. Students more involved in the meeting to know the financial aspect of the team
- Increase communication with both School, Local Newspapers and TV Stations



In Three Years

- Organize and run one Jr. FLL Event at a local school
- Add two additional Major Corporate Sponsors
- Have the majority of our cost to be supported by sponsors
- Create enough funds to carry over into the next year
- Increase attendance during off season
- Make a yearly Science Carnival at local events
- Establish one sustainable local High School **FIRST**[®] FRC team
- Establish a robot camp at two local elementary schools
- Make the “Robot in Classes”, in which we go to PLTW and science classes to present our robots, a yearly event

In Five Years

- Establish an effective system of recruiting new members during the summer months
- Four additional Major Corporate sponsors
- Establish three sustainable local High School **FIRST**[®] FRC teams
- Three different Community tech nights with a 300 yearly participants
- **FIRST**[®] robotics class as a part of High School Curriculum

2.2- Partnership with Community

- Parents night out— Free care service for kids with special needs
- **FIRST**[®] Community Tech Night— Free technology education and digital citizenship courses for our community.
- Lego Day— Free science and technology interest event to generate inspiration in engineering, **FIRST**[®], FLL, and FRC
- FLL Tournament— Helped run and Judge Indy South Regional Qualifying Tournament
- Donations to Food Bank generated by Pay What You Can— Team and community donates food as admission to events
 - Lego Day
 - ToxCity Game Day
- FLL, FRC, and FTC team mentoring— Helped establish and sustain local Jr. FLL, FLL, FRC, and FTC teams
- Robots in the classroom— Students do robot demonstrations to reinforce curriculum
- Operation Christmas Child- Packed over 1300 shoe boxes for children all over the world
- Girl Scouts of America Partnership- Fundraising and Gold award
- Vision Walk- Helped run the event and partnered with football team to raise funds for Vision Walk

- Homecoming- Designed and built a float that represents schools theme and **FIRST**[®]
- Conner Prairie- Mini Maker's Faire - Not only changing today, but changing tomorrow
- Project Linus— Craft blankets for children in need
- Scouting at **FIRST**[®] Competitions— Working collaboratively with **FIRST**[®] community members to scout at regionals
- Science Fair— A safe place for pre- **FIRST**[®] aged children to learn about science and technology at local events
 - C.A.G.E. Match, Indy South Regional Qualifying Tournament, **FIRST**[®] Community Tech Night

2.3- Partnership with Our Students

We are committed to building a better “us”. Students gain transferrable skills in leadership, public speaking and business, along with self-discovery, self-esteem, and teamwork. We build our strength in these fields through unforgettable memories and experiences geared towards inspiring students to pursue STEM fields. We made a large print game manual for students on our team that have low vision. Last year, we submitted an electronic version of the large print manual to the **FIRST**[®] website to benefit other **FIRST**[®] participants in similar circumstances.

During the off-season our team meets weekly. During these weekly meetings we hold training sessions for new students wanting to join the team. Training classes we teach include programming, animation, leadership skills, and machine work. Before the build season begins we hold a design exercise so students can get an idea of what designing a robot is like. During the design exercise, students must partner with other team members to design a robot for a previous year's game. Grades are very important to our team. During the build season we do grade checks, if a student is struggling in a class we offer tutoring. We partner with each other by offering a safe place to learn and offer help with homework assignments.

Active Students

<u>Name</u>	<u>Years with FIRST[®]</u>
Boutilier, Shelby	1
Cardwell, Nathan	1
Choksy, Darius	8
Clark, Rick	3
Daniel, Rachel	8
Eid, Torban	3
Frye, Kyle	2
Gardner, Ka'oe	1
Hiembrook, Steven	6
Kadel, Whitney	1
Kenney, Ian	1
Kring, Ethan	3
Lesser, Ryan	1
Lesser, Travis	1
Mathews, Stephen	1
McKnight, Dustin	1
Mendenhall, Doyle	1
Patel, Rushi	4
Rameirez, Tommy	1
Ray, Alden	4
Ray, Tyler	1
Reed, Dakota	1
Rose, Hailey	1
Sanders, Kent	1
Schoenfelder, Tyler	3
Shi, Allen	1
Silvertooth, Alex	1
Smith, Mariah	5
Tam, Amy	2
Ziggler, Nathaniel	1

Section 3- Resources

3.1- School

FIRST® Team 1741 has developed a partnership with our school. We help them in any way we can because they are a major resource to us. Throughout the years, **FIRST**® Team 1741 has struggled with having the room to work on our robot and store all of our tools. The school has helped us by giving us a room all to ourselves and allowing us to use the wood shop, design room, and CAD lab. They have recently donated 6 computers to our team to use. They have given us funding and allowed us to have both a refrigerator and microwave in our room to help us stay up during the long build season nights.

3.2- Mentors

Our strongest partnership is with our mentors. Our mentors are always there to encourage and empower us. They put in countless hours to push us to pursue greatness. Our dedication stems from the commitment they show us. Some of our mentors are people who came in for a day and were so inspired they stayed on the team for years, even without ever having students on the team or a previous affiliation with **FIRST**®.

Active Mentors

<u>Name</u>	<u>Years with FIRST</u> ®
Baxter, Dwight	7
Baxter, Sharon	7
Butts, Matt	2
Choksy, Carol	8
Coulumbe, Nathan	2
Daniel, Bernie	7
Daniel, Bob	7
Eid, Brad	1
Frampton, Patrick	7
Hamilton, Bob	1
Kadel, Aron	1

<u>Name</u>	<u>Years with FIRST</u> ®
Meyer, Hugh	6
Miller, Jordan	5
Ray, Aaron	4
Rose, Christopher	2
Schoenfelder, Mike	1
Setter, Andrew	1
Settles, Tim	6
Smith, Betsy	7
Smith, Ron	1
Snodgrass, Mark	3
Theilmeyer, Rich	2

3.3- Alumni

100% of our students graduate from High School and go on to college. We try to keep in touch with our alumni best we can using modern technology. Most alumni are a part of the Red Alert Alumni Facebook Page. They continue through college while keeping a close relationship with their past team mates.

A * by their name indicates they stayed involved with **FIRST**[®] after graduation.

2006

- *Kurt Mauer- Engineering at Purdue
- Nathan Dubbs- IUPUI
- *Cory Foster- Purdue

2007

- *Betsy Smith - Working as a kindergarten teacher (Elementary Education IUPUI)
- Emily Baumgartner- Navy Electrical Engineer
- *Patrick Frampton- Computer Science at IUPUI
- Autumn Holman- Law at IUPUI
- David Doane- Video Game Design in Manchester England at Oxford
- Scott Pace- Electrical Engineering at Purdue

2008

- *Mike McCoy -Mechanical engineering at Purdue
- *Eric Andrews - Media Arts and Science at IUPUI
- *Charlie Baxter- Aerospace Engineering Technology at Purdue
- *Michael Foley - Graphic Design at IUPUI
- Jimmy Kramer - Management Information Systems at Washington State University
- Devin Dressler- Farming Technician at Ivy Tech
- *Aaron Clay – Computer Science at Purdue

2009

- *James Dugan - Working at Allison Transmission (Ivy Tech)

2010

- *Matt Misner- Informatics and security at IUPUI
- Colton Sprague- Ivy Tech
- *David Foley- Mechanical Engineering at IUPUI
- Kelsey Hart- Civil Engineering at Purdue
- Ryan Martin- Working- EMT
- Ben Hyatte- Environmental Science at IUPUI



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- Jacob Hyatte- Chemistry at Purdue
- Trevor Settles- Physics at Purdue
- *Levi Miller- Electrical Engineering at Purdue
- *Mike Kobierski- Biomedical Engineering at Purdue
- *Zach Stanley- Electrical Engineering at Purdue
- *Craig Roberts- Electrical Engineering Technology at ivy tech
- *Alyssa Inman- Management at Purdue
- Jeremiah Hansen- Mechanical Engineering at IUPUI
- Zack Hansen- Mechanical Engineering at IUPUI
- Andrew Alderson- Computer Science at IUPUI
- *Colin Balast- Computer Science at IUPUI
- Tim Barnett- Music at Ball State

2011

- Alyx Kopie- Painting at IUPUI
- Robin Eid- Electrical Engineering at IUPUI
- Justin Sluka: Computer Science at Purdue
- *Austin Settles- Biology Purdue
- *Nick Roeder- Engineering Purdue
- *Jordan Miller- Animation and Video Game Design at IUPUI
- *Carly Morris- Entomology at Purdue
- Cynthia Rose- Engineering at Purdue



Section 4- Analysis and Strategy

4.1- Financial Plan

Income

Item	Amount	Description
Sponsors		
Cummins	\$10,000	Recent partnership with Cummins as a major corporate sponsor
Endress and Hauser	\$6,000	Through a presentation to Endress Hauser we were able to receive a sponsorship
Rolls Royce	\$5,000	A yearly sponsorship from Rolls Royce
Indiana Department of Education	\$2,500	Yearly grant from the Indiana Department of Workforce Development to be applied towards 1 competition.
Grants		
Transformation Trust, Inc.	\$5,000	
Praxair	\$2,500	
Southside Pediatrics, Inc.	\$1,000	
Raytheon	\$800	
Midwest Mobile Care	\$750	
Cornerstone Interiors	\$500	
Fundraising		
Donations and Student Contributions	\$19,400	Through "Friends and Family Letters", we receive donations from community individuals, local businesses, and from people in eleven states.
Other Fundraising	\$4,000	Macy's, Kroger, FIRST ® Light bulbs, Manna Express Cards

Total: \$57,450



Expenses

Item	Amount	Description
MARC Registration Fee	\$200	Entrance Fee Required for MARC
Team Travel Expenses: MARC	\$313	Transportation, trailer, and hotels for MARC
IRI Registration Fee	\$500	Entrance Fee Required for IRI
CAGE Match Registration Fee	\$250	Entrance Fee Required for CAGE Match
Boilermaker Regional Fee	\$4,000	FIRST [®] Registration Fee for the Boilermaker Regional
Team Travel Expenses: Boilermaker Regional	\$500	Commuting to the Boilermaker Regional
Queen City Regional Fee	\$5,000	FIRST [®] Registration Fee for the Queen City Regional
Team Travel Expenses: Queen City Regional	\$5,500	Transportation, meal costs, and hotels for the Queen City Regional
World Championship Registration Fee	\$5,000	FIRST [®] Registration Fee for the World Championships
Team Travel Expenses: FIRST [®] World Championships	\$5,500	Transportation and hotels for the FIRST [®] World Championships
Competition Robot Expenses	\$6,000	Cost of construction of the competition robot
Prototype Robot Expenses	\$4,000	Cost of construction of the prototype robot
Publicity Costs	\$1,400	Covers Banner, buttons, t-shirts, spirit wear, and the website.
Community Outreach	\$450	Cost of running FLL Competition, Library Demonstrations, and other outreach activities.
Miscellaneous Yearly Costs	\$1,985	Cost of awards, shop upkeep

Total: \$39,598

Any surplus funds are put into the team savings account to be applied to the following year. If a shortfall should happen in funds, mentors and/or students may be asked to pay for their own meals, travel fees, and/or room fees.



4.2 SWOT Analysis

Strengths	Weaknesses	Opportunities	Threats
Not afraid of change	Balance between us and <i>FIRST</i> [®]	Personal recognition	Drama
Good at Regionals	Drama	Scholarships	Budget Cuts
Outreach	Working together (sometimes)	Bringing back experienced mentors	Self-Destructive Behavior
Delegation	Need machines	Partnerships	Lack of training, safety and understanding the student body
Business Plan	Knowing when we are crossing the line	Connections	Lack of money
Administration Support	Time management	Win at World	Other teams
Great Mentors	No teacher contact	Gain experience	Sabotage
Moving in a good direction	Lack of Precision	Become a Leader	Disgruntled Students
<i>FIRST</i> [®] web site	No school support	Networking	Lack of rules
Relationships	Bad media	Internships	Injuries
Get things done when we have to	Training	Relationships	Loss of students
Team Advocates	Limited to our space	Time to get better at what you do	Loss of parents

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Strengths	Weaknesses	Opportunities	Threats
Established Team	No extra anything	Learning Experiences	Loss of workspace
Good Sponsors	Lack of Participation	Go for World Chairman's	Loss of computer access
Awesome Parents	Team Ownership	Learn about other fields	Loss of machine work
Motivated Students	More NEngAs	Starting over	Loss of mentors
Team Spirit	Communication	Friendships	Loss of sponsors

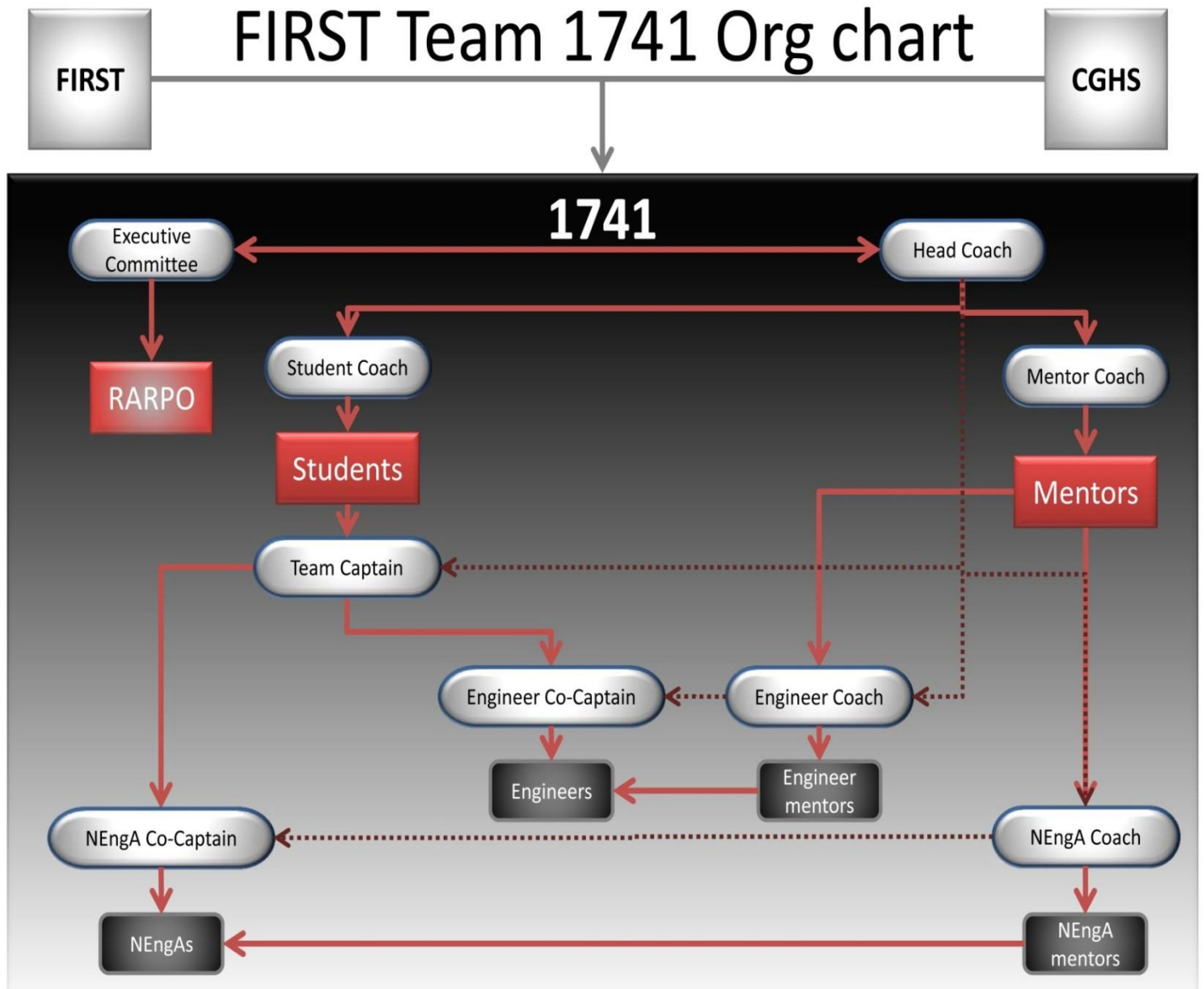
4.3 PEST Analysis

Politics	Economics	Social Issues	Technology
Legislation for <i>FIRST</i> [®]	Non-engineering sponsors may be more recession-proof	We are not using social networking to its full potential	Scouting
Mandated funding	Michigan gets twice the competition for the same price	Being smart should be cool	New cRio is coming There are different types of aluminum available
Technology grants	School funding	Improve community technology	We are not using social networking to its full potential
Tax law changes	Put tariffs on imports	Internet could be good or bad—cyber-bullying	Using simulators
Get to know the politicians	Budget cuts & referenda adversely affecting us	Start a trend in clothing, buttons, fedoras	Transferring data is easy over the Internet
Get to know school and district administration	Potentially fewer sponsors	Ice cream social	Get list of what tools we need
What to Do About It	Taxable donations may be gone soon	Cyber-bullying action plan	Refurbish mill
Understanding how we fit into the politics system	Need to show why <i>FIRST</i> [®] leads to more jobs through STEM	Team up with popular club/activity like cg dubstep	Write our own OS or programming language
Working with other governments in US	Getting funding from the state for all <i>FIRST</i> [®] team in IN	CG Robotics T-shirt	Write smartphone games or app, like scouting

Politics	Economics	Social Issues	Technology
Contacting possible future government member to get there support before they go into office	Partnering with Cummins for other team sponsorships	YouTube video	Partner with excelling tech companies for internships and in-kind donations
Getting involved with STUGO	Sponsor presentations	TV exposure	Partner with software and hardware companies

Section 5- Management Plan

5.1- Team Structure Matrix



5.2- Expectation of Members

- **Cooperation:** If a mentor or student in a leadership position requests you to do something, you will comply with the best of your ability. If you feel a request is out of order, you are encouraged to talk to a different mentor about it.
- **Safety:** If you see others who are not being safe let them know in a positive manner.
- **Effort:** Perform to the best of your abilities at all times.
- **Respect:** Demonstrate a respect for all fellow students and mentors.
- **Learn:** Demonstrate a willingness to learn new things.
- **Mentor:** It is the responsibility of all students to teach and mentor younger or new students to foster continuation of **FIRST**[®] principles and enable younger students to take on responsibilities as upperclassmen graduate

5.3- Expectation of Leaders

5.3.1- Overall Team Captain

- Oversee and manage the team's year round program
- Oversee all outreach and team events
- Lead team meetings
- Act as a liaison between the Red Alert Robotics Parent Organization and the team members
- Be a mentor and example to all other students
- Act as a 3rd party during a disagreement /difficult situation
- Make general decisions concerning the team
- Represent the team at all events
- Facilitate team discussions
- Lead weekly leadership meetings
- If absent, find a replacement for the meeting

5.3.2 Engineering Captain

- Oversee and manage the building of the competition robot
- Oversee all off season engineering/build projects
- Act as a liaison between the team captain and the engineering sub-teams
- Be a mentor and example to all other students
- Act as a 3rd party during a disagreement /difficult situation
- Make general decisions concerning the engineering sub-teams
- Represent the team at all events
- Facilitate engineering team discussions
- Attend weekly leadership meetings
- If absent, find a replacement for the meeting

5.3.3 Non-Engineering Captain

- Oversee and manage the non-engineering sub-teams
- Oversee all team outreach and events
- Act as a liaison between the team captain and the non-engineering sub-teams
- Be a mentor and example to all other students
- Act as a 3rd party during a disagreement /difficult situation
- Make general decisions concerning the non-engineering sub-teams
- Represent the team at all events
- Facilitate non-engineering team discussions
- Attend weekly leadership meetings
- If absent, find a replacement for the meeting

5.3.4 Sub Team Captain

- Lead their respective sub-team
- Oversee activities for which the sub-team is responsible
- Act as a liaison between the team captains and their sub-team
- Be a mentor and example to all other students
- Act as a 3rd party during a disagreement /difficult situation
- Make general decisions concerning their sub-team
- Attend weekly leadership meetings
- If absent, find a replacement for the meetings

5.4- Recruiting New Members

FIRST[®] Team 1741, Red Alert Robotics, has a number of different ways to recruit members each year. Within this past year **FIRST**[®] Red Alert Robotics has hosted several open houses where we invited the whole community to come and see what **FIRST**[®] Red Alert Robotics is all about. In addition to the open houses we also help a community tech night at a local middle school to help educate the community about technology along with **FIRST**[®] Team 1741 Red Alert Robotics. We also participated in the schools club fair for new students to allow them to understand what we do on the robotics team. At our schools meet the teacher night we gave the parents of our school a greater understanding of who we are.

Section 6- Execution

6.1- Execution of the 2012 Build Season

See Appendix B-Gantt Chart

6.2- Execution of Community Service

Partnerships

FIRST® Team 1741 creates partnerships because we believe in the power of FIRST®. Our partnerships create positive impacts on the future of our students, our team, our community, and the world. FIRST® allows us to grow as individuals and as a team through transferrable skills, hands-on experiences, and self-discovery. We work closely with our mentors to obtain a greater knowledge about STEM, gracious professionalism, coopertition, teamwork, our community, and ultimately ourselves.

Partnership with FIRST®

FIRST® Team 1741 believes the best way to create a partnership is to help facilitate younger teams. Within the past few years, we have partnered with a local high school to help start FIRST® Team 3180. To start them out, we invited them to a local off-season competition and loaned them a robot to learn the ropes. After that experience, they were hooked. They are now an up-and-coming team that has become involved in hosting off-season events of their own!

We have built a strong partnership with many local teams in addition to FIRST® Team 3180. We partner with FIRST® Team 234, our mentor. Each year they weld our robot frame and we return the favor by providing parts and breakfast. We also collaborate to make everyone's Chairman's, scouting, and Business Plans the best they can be!



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FIRST® Team 1741 is interested in expanding all levels of FIRST®. We helped to start an FTC team of home-schooled students in our area. Some of our members work as a part of both teams, exponentially increasing their knowledge of FIRST® and spreading gracious professionalism. We are proud to say that we have started and facilitated many FLL teams over the past several years. FIRST® Team 1741 hosts the Indy South Tournament - the only official FLL event in central Indiana and the only event sponsored by an FRC team. This past year, we partnered with an elementary school in our district to form our first Jr. FLL team. Our Jr. FLL team partnered with our high school students to learn the science behind ice cream. For the past 4 years Red Alert has helped run CAGE Match, a local off season competition.

We have a 100% high school graduation rate and 100% attend college. 70% of our graduates continue on as FIRST® mentors or volunteers. This shows what an impact FIRST® has had on students' lives.

Partnership through Dean's Homework

Dean's Homework is very important to FIRST® Team 1741. This year we developed ideas and methods for spreading the mission of FIRST®. Whenever we go out into the community we make sure to emphasize that we are a FIRST® Robotics team.

FIRST® Team 1741's focus this year was contacting local media. We have appeared in all forms of local media this year including newspapers, television, and radio.

Partnership within our Community

FIRST® Team 1741 partners with our community. We host and participate in events that positively impact our community while allowing our students to step up as leaders and engage in high-level planning. Our build room was a stop for The Amazing Race, where couples built their communication skills while trying to hang a LogoMotion tube. To catch the attention of young children at our events, we hold mini-science fairs.



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We section off areas dedicated to young children and include student-created lesson plans such as “Fun with Physics.” We hold our science fairs at many public events across our state. Red Alert also participates in Project Linus where our team parents, students, and our school’s other clubs come together to craft blankets for children in need. Red Alert has also helped mentor several area VEX teams completely composed of homeschool students. We offer them training classes and this year we even built their field!

FIRST® Team 1741 supports our military. We visited an Air Force base to learn about military technology and visited a veterans’ hospital to thank them for their service and learn about prosthetics. We showed them our technology and they showed us theirs!

When it comes to the environment, forget Red Alert, we are Green Alert! We partner with our school’s Recycling Club to coordinate the recycling of bottles, cans, cardboard, scrap aluminum and batteries. We also partner with The Ronald McDonald House to recycle pop-tabs.

One of our most successful events each year is our FIRST® Community Tech Night. This is a student-led event that attracts over 100 people. We focus on creating better cyber-citizens and increasing digital literacy within our community. We offer 32 different classes including internet safety, video game safety, and anti-cyber bullying(That included a visit from the Greenwood Chief of Police), E-mail, Microsoft Word, and classes for technology used within the school corporation. Most classes are taught by FIRST® Team 1741 students and district middle school teachers. Classes offered for young children included “Silly Science” and “Marble Coaster eXtreme” classes. We reach people of all ages!

FIRST® Team 1741 tours the state with our own traveling exhibit called, “Amazing Robots.” We visit libraries doing demonstrations, and spreading the word of FIRST®. In conjunction with our library demonstrations we have started a literacy



program called “Read Alert” where we boost literacy skills with technology-related literature.

Developing Partnerships within Our Team

We are determined to build a better “us”. Students gain transferrable skills in leadership, public speaking, business, and teamwork. We pride ourselves in the strenuous processes of high-level planning and decision-making of our team. Each student must show their commitment and willingness to make decisions for the good of the team and to work in harmony with each other. We build our strength in these fields through unforgettable memories and experiences geared towards inspiring students to pursue STEM fields.

Before build season begins, we focus on building the skills of our students. We offer training sessions in areas including programming, animation, leadership, and machining. We also hold design exercises where we create robots for previous years’ games, so students can prepare for build season.

Grades are very important to our team. During the build season we monitor grades. If a student is struggling, we offer tutoring and a safe, quiet place to learn for help with homework assignments.

Developing Partnerships with Others

Our strongest partnership is with our mentors. Our mentors are always there to encourage and empower us. They put in countless hours to push us towards greatness. Our dedication stems from the commitment they show us. Some of our mentors are people who came in for a day and were so inspired they stayed on the team for years, even without ever having students on the team or a previous affiliation with FIRST®.

Without a partnership with sponsors, our team could not function. Their ability to extend their knowledge and resources keeps us running and gives us a glimpse of our



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future through donations, summer internships, and jobs. We try to give back to our sponsors by updating them on our success throughout the year by giving presentations.

During the Christmas season our team partnered with a worldwide organization to help pack care packages. We helped pack 1300+ boxes to be shipped across the world. FIRST® Team 1741 also partnered with a local Girl Scout troop for fundraising, and we are helping one scout plan an event for her Gold Award - a FIRST® Radical Robot Camp that will teach simple programming and essential skills for future FLL students.

Through a partnership with Cummins, FIRST® Team 1741 has been able help support the FIRST® community. We recently had a presentation with several technical and community outreach leaders. One of Cummins's main goals is to reach out to the community. With 150 community involvement teams all around the world, they are partnering with us to help expand the FIRST® community. Through this partnership we hope to have Cummins employees mentor teams near their plants, provide financial support for all Indiana FRC teams, help our partner team in Brazil, and start new teams in China, Brazil, and India.

Partnership with our School

FIRST® Team 1741 has developed a partnership with our school. Through our partnership with our school's football team, we were able to help a player with low vision raise money for the Vision Walk - which we have been involved in helping run for the last three years. We also partnered with the school's basketball team to learn different skills for this year's game, Rebound Rumble. Our team is the only school extra-curricular activity to participate in the homecoming parade. Each year we have a design that coincides with the homecoming theme and the message of FIRST®.

Partnering with the school curriculum, during the off-season, our team was given a reading and discussion assignment by the school, to increase students' critical literacy skills. Every student read *The New Cool* and then discussed it in small groups. This allowed students to gain a greater knowledge of what a FIRST® team is all about.



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Our team is strongly involved in other areas of the school curriculum as well. Our robot started in a pneumatics lesson and we are working with the science department to create a lesson on prosthetics. We are also heavily involved in our school's Project Lead the Way Classes. Our robot even made an appearance in the Drama Club's fashion show!

Importance of Partnership

FIRST® Team 1741 knows that partnerships are what make FIRST® such a success. FIRST® is about innovation, inspiration, teamwork, gracious professionalism, cooperation, and passion; we believe these are the essential roots of a partnership. These roots help to fuel our drive and dedication in the FIRST® program. With our partnerships, we strive to plant a seed of FIRST® in the hearts of every individual we come in contact with and to nurture the growth of FIRST®.

6.3- Awards

2011

Regional Chairman's Award – Boilermaker Regional
Entrepreneurship Award – Boilermaker Regional
Most Charitable Donations - CAGE Match

2010

FIRST® Dean's List Finalist – Boilermaker Regional
Gracious Professionalism Award sponsored by Johnson and Johnson
Regional Finalist – North Carolina Regional
Most Charitable Donations - CAGE Match
Humanitarian Award - MARC

2009

Most Charitable Donations - CAGE Match

2008

Motorola Quality Award – Boilermaker Regional
Xerox Creativity Award – St. Louis Regional
CAGE Match Finalist
Most Charitable Donations - Cage Match

2006

Rookie Inspiration Award – Boilermaker Regional
Regional Finalist –Boilermaker Regional



Team Sustainability Plan

In case of Loss of School Build Area

This happened to us in the summer of 2010 and could possibly happen to us in future summers. It is not likely to happen during a winter build season. This majorly disrupts our team function.

The effect this would have on our team:

- We may have to move off of our school property. We have arranged a worst-case-scenario with parents who own barns. They may offer this as an option to us, should this happen.
- If barns or similar facilities are not available, the team may need to rent a space to use.
- We currently have four rooms allotted for our use and should we move off-site, this space could be reduced and we would no longer have use of the school's equipment (i.e. lathe, mill, band saw, et al.)
- If spaces are greatly restricted, we may limit the number of people on the team.

How we would handle this, should it arise:

- The Engineering side of the team may need to meet separately from the NEngA side of the team in order to save space.
- We would need to reassess our budget to allow for purchasing of rental space or needed resources such as tools.
- Market our team to other facilities (For example, Local Central 9 Career Center) in hopes of seeking alternative permanent meeting space; also continue contact with Center Grove in hopes of earning our meeting space back.

In Case We Lose Key Sponsors

FIRST® Team Red Alert has recently lost six sponsors so this could possibly happening future seasons. Due to the high frequency of this happening, our team has adjusted to this problem well so the effect on our team is not that great.

The effect this would have on our team:

- With fewer sponsor dollars to use, our team has had to adjust our budget. We would likely continue to spend less in all areas such as build cost, promotions, and outreach funding.
- If severe enough, the team may need to increase the cost of team membership to students, likely having them pay more to participate in the team, pay to travel, or pay their own hotel expenses.
- Mentors may also see a cost increase, possibly having to pay their own travel and hotel arrangements.



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- As a team we may need to find alternate hotel arrangements (As a team, we stayed in West Lafayette Jr/Sr. High School, home of **FIRST**[®] 461, for the Boilermaker Regional)
- As a team we may need to find alternate travel arrangements (As a team, we traveled to the Smoky Mountain Regional on a bus with **FIRST**[®] 1747)
- If funds run low enough, we may attend fewer competitions, or possibly only one.

How we would handle this, should it arise:

- The team would need to do more fundraising and begin it earlier – not starting at the start of the school year, but possibly at the end of the previous year's competition season.
- Our team would need to market ourselves to attract new sponsors and to work towards a greater relationship with current sponsors.
- Start a team "Emergency Fund" which contains exactly enough money for a build expenses and one competition expense for the following year.

In Case Our Parent Organization Embezzles Our Funding

This happened to a local elementary school and is something that could possibly happen to our team. The chances of this happening are low but the impact of the sudden loss of our funds would greatly impact the team.

The effect this would have on our team:

- First we would need to alert the proper authorities that this issue had arisen.
- The resulting loss of funds would have a similar effect as the **Loss of Key Sponsors**.

How we would handle this, should it arise:

- Our team would need to create new bank accounts for all of our funds.
- Anyone who has access to **FIRST**[®] Team 1741's funding would need to be bonded and ensured to handle said money.
- We would work to generate new funds through fundraising and finding new sponsors.
- We would work harder to apply for grants to fill in the missing funding.

In Case Our Team Loses Access to School Computers

This happened to our team in the past due to a misunderstanding involving downloaded materials on school computers. We take many precautions in our computer lab to prevent similar occurrences from happening but there is some chance that this could happen to our team. This would cause some sub-teams difficulties, but would not be hard to work around.



The effect this would have on our team:

- Students would have to bring in their own personal computers to complete team work, work at home, or use the few laptops that the team owns.
- Students would no longer have access to the four years worth of team data the team has saved for use.
- Students could possibly lose access to the Robotics Team networked hard-drive which is accessible from all school computers.

How we would handle this, should it arise:

- The team would need to pay for and install needed programs on team laptops and possibly personal laptops for team use.
 - The team may need to budget for additional laptops for the future, depending on the need.
 - We may need to find alternative hosting for the Robotics Team networked drive and possibly the team website.
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In Case We Lose Our School Liaison

This has a very high possibility of happening because due to the high hour requirements and the low stipend pay, many teachers do not stay for more than one or two years. Since this has happened five times in six years, our team has adjusted to not having this liaison but the process of adapting to this change yearly.

The effect this would have on our team:

- With the support of our school's administration, the team can sustain without a school liaison as long as we work to inform this administrator (i.e. a Vice Principal such as Mr. Gallman) of our team's activities.
- With the loss of this liaison, we would lose access to needed student information (Such as grades, attendance, and even locker numbers)
- Without a school liaison it is often difficult to arrange for team traveling and team events within the school.
- After losing a school liaison, the team must work to recruit a new liaison.

How we would handle this, should it arise:

- The school approves a mentor to be the sponsor and grants that mentor a key to access the building.
 - The team would appoint a mentor to accept team mail.
 - The team would work to document activities with the school.
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Information for creation of a Team Disaster Plan obtained from Cyber Blue – **FIRST**® Team 234.

Document for creation of a continuity plan located at

<http://www.chiefdelphi.com/media/papers/download/2489>

