EAGLE ROBOTICS

Business Plans and Budgeting for FTC

2020 Georgia FIRST Tech Challenge Kickoff

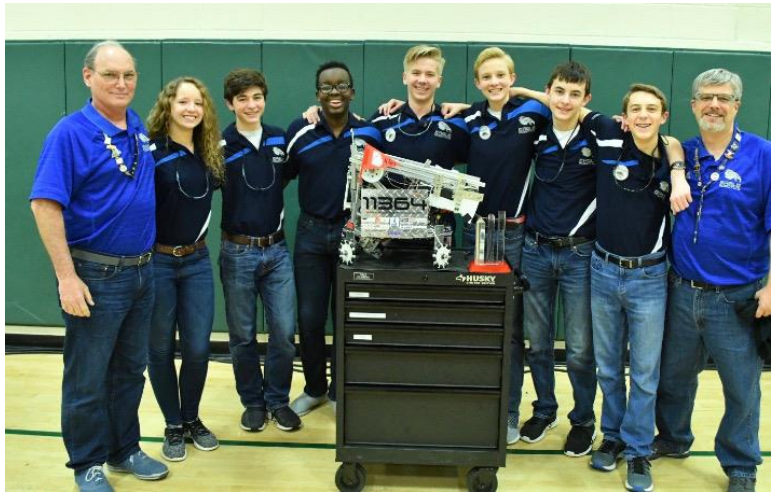
Presented by Sarah McCune – Eagle Robotics Team 7373

Introduction

2018-2019 Season:
-State Inspire 3rd Place
-State Think Award 1st Place
-Worlds Think Award Finalist

2019-2020 Season:
-State Inspire Award 1st Place
-State Winning Alliance Captain

Over the Years:
-Business Manager
-Notebook Manager
-Outreach/Marketing Manager



What is a Business Plan

The Overview:

A business plan is a document designed to showcase a team's unique qualities, including its values, accomplishments, and plan for the future. It is essential to garnering sponsorships and communicating with the surrounding area.

According to FIRST®:

"...describes how an organization will ***define, set priorities, and develop the ways that it will achieve its goals****. It helps the organization (in this case, your team)* ***choose a course of action*** *and a measure by which to decide about how they will gather and use resources. That* ***information can be shared within the team to keep everyone focused****. It can also be shared with parents, school administrators, sponsors, and other groups to describe the team's purpose and impact. Make sure to identify what must be purchased, such as tools and major parts, not only simple categories like parts, travel lodging, and other things.* ***It should include the budget, the fund-raising plan, and a contingency plan****, if the team does not reach their fund-raising plan, and what they will do if they have excess. For multiple team organizations, show who is doing what and how the money raised is divided."*

Importance

-Showcases the accomplishments and history of the team

-Provides essential content that can be utilized in other areas of the team

-Gives the team a focused purpose for the season

-Acts as a strategic plan to gather funds and sponsorships

-Allows for meaningful connections with sponsors and other professionals in the community

The Breakdown

Team Description and History

Core Values and Impact

The Pitch and Budget

Executive Summary

Think: What do you want professionals to remember?

-Mission statement

-Brief overview

Introduce the team(s)

-Who are you? How many teams do you have?

-How do you fit into the FIRST® community?

Use your BEST pictures here. Act like readers stop at this point.

The Details

In-Depth Team Description

-Gives greater detail about your team after hooking them with the overview

-Include details like coaches and mentors, practice schedules, event timeline

Team History

-What prompted the team's formation?

-How long has your team existed?

- Any changes/adaptations since then?

Competitive Success

- Balance is key: Don't overdo it **but** remember that every award is important

The Details Continued

Team Roles

-How do you make an effort to include all skill sets?

-Don't just list the roles, describe what they do and how they are vital

Unique Team Qualities

-How does your team stand out from the rest?

-What's special about you?

-Remember: you want to show sponsors why they should support you in particular

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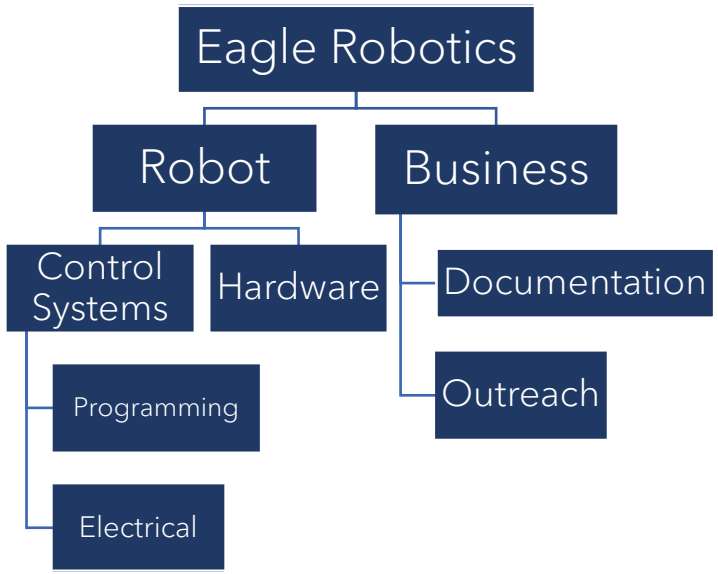
Mechanical

-Keeps tools clean and organized
-Determines parts required for the construction of the robot
-Constructs robot
-Maintains safe workshop
-Helps to provide dimensioned drawings for the CAD team



TEAM HISTORY

2003 | Eagle Robotics is Founded

In 2003, the late Professor R. Glenn Allen (Southern Polytechnic State University Mechanical Engineering) invited Mount Paran Christian School STEM Coordinator Brad Smith to the inaugural year of the Georgia hub of the organization called Boosting Engineering, Science, and Technology (BEST).

SPSU helps science department offer robotics course

The team gratefully accepted his invitation, and thus Mount Paran's high school competition robotics team was born. Beginning with the BEST Fever game, the team went on to spend ten years playing in the BEST league.

2013 | Eagle Robotics Joins the FIRST® Program

In the 2013-14 season, Eagle Robotics made the transition from the BEST organization to FIRST®. Now a FIRST® Tech Challenge participant, Team 7373 Eagle Robotics thrived in the FIRST® environment and succeeded greatly both on and off the robotics field.

2015 | A Second Eagle Robotics Team is Formed

Following the RES-Q game (2015-16), Eagle Robotics accumulated so many members that a new team, Eagle Robotics Team 11364 Diamond Plate, was created. Team 7373 was then rebranded to Eagle Robotics Team 7373 Carbon Fiber to parallel the style of the new team. Adhering to the current structure, Team 11364 is comprised of first-year members focused solely on building a robot and compiling an engineering notebook, and returning, experienced team members operate Team 7373.

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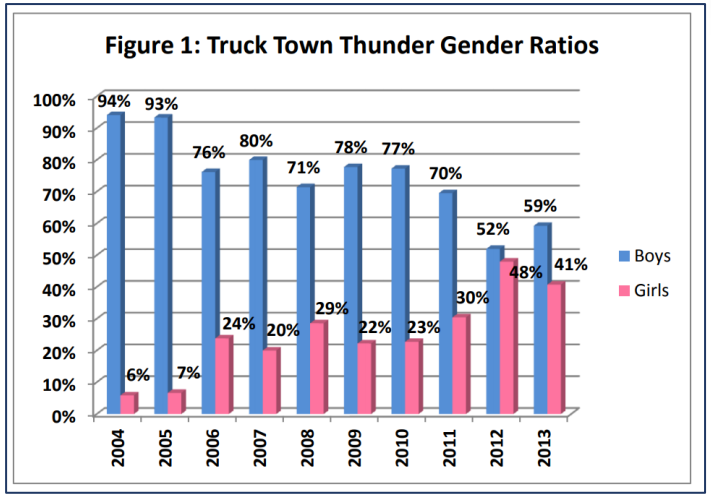

Risk: Broken Machines, Broken Equipment
Impact:

- Cease work on robot until fixe
- Replacement of machine may not be possible
- Temporarily move to new build site

Action:

- Get machine fixed
- Seek other FIRST teams assistance for sharing of equipment
- Call out to sponsors and community for assistance

Community Impact and Values

Structure, Plan, Purpose

-What's the mission behind your outreach?

-Why do you complete each event?

-How will you use a sponsorship to help others?

Sustainability

-How are you working to ensure that your team continues to grow and improve?

-Remind readers that you are not only thinking about yourself

While the entire business plan is essential to the team plan, this section is especially important.

Evaluating Success

SWOT Analysis

-Strengths, Weaknesses, Opportunities, Threats

-Readers see more examples of why they should support you

-Shows that you recognize the areas that you need to improve

Setting Goals

-Set new and specific goals for each season...then work to achieve them

-Illustrate how you fulfilled (or tried to fulfill) past goals

Success is measured by neither awards nor recognition; its unique for each team.

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Strengths

- Tele-op
- Range of awards
- Team cooperation/professionalism
- Consistent auto and TeleOp
- Charging
- Composure
- Interview
- Pit crew
- Match readiness
- No last-minute changes
- Strategy
- Robot design

Weaknesses

- Auto points
- Speed to hang
- End game consistency
- Scouting sheet
- Packing necessities (laptop, rack)
- Arm bulkiness
- Static (initially)
- Marketing/handouts
- No display/videos
- Lack of decision documentation

Opportunities

- Force restart via color change
- More degrees of arm movement
- Scouting
- Rack and pinion to timing belt
- Autonomous points
- Project plan
- Faster super structure
- Latching and partial park (65pt end)
- Designated parking component
- Flawless 80 auto, 10 minerals, 50 end game
- Statistical analysis/testing lead

Threats

- Better robots
- Time
- Beta's autonomous
- Other teams copying our design
- Better ideas/strategies

Final Notes

Action Plans

-Where do you want your team to be – by the end of the season, after you leave, etc.

-Closely related to sustainability

Contact Information

-Ensure that you provide contact information at the end of your business plan

-Website, team email, coaches' email, social media

Sponsors

-Make sure to recognize current sponsors in the business plan

-Use their logos, name, and/or description to show that you appreciate their support

Finances: The Connection

Importance

-Keeps a team on track for the season, ensuring they do not spend more than what is available

Bridging the Two

-The business plan is just the first step

-You have introduced the team's actions, goals, and impact; now you must show the facts

-The budget is just as essential, as sponsors must know that you will handle their money wisely in all your endeavors

Budgeting

Tracking Expenses and Sponsorships

-Every purchase that the team makes – big or small – must be tracked

-You want to be able to show sponsors where their money is going

-Remember to track gifts from sponsors too

Execution

-Organize purchases by category, sponsor, etc.

-You can use Excel, Google Sheets, or a table in Word to track expenses

This portion, though essential, will not be displayed in full detail in the business plan.

Budgeting Continued

Contingency Plans and Extra Preparations

- Money set aside for unexpected expenses in specific areas of the team

-Ensures that your budget is not padded

-Have plans ready in case you don't meet fundraising goals

Tips and Tricks

-Stay organized and up-to-date; track expenses as they occur

-Simple ideas - like color coordination – can go a long way

Displaying the Budget

Keep it Brief

-You may be tempted to display all of your work, but sponsors do not need to see this

-Only show the essentials in the business plan but be transparent – all your money is not being spent on robot parts

What to Put in the Business Plan

-Expenditures from prior season

-Projected Expenses for the season

-Optional: Revenue Streams

Revenue Stream				
Donor	Team #	Purpose	Date	Amount
Money Brought Forward				
Team 000	both	sponsorship	11/1/2019	$ 100.00
Team 111	both	sponsorship	11/1/2019	$ 100.00
Team 222	both	sponsorship	11/1/2019	$ 200.00
Corporation 111	both	sponsorship	11/2/2019	$ 100.00
Corporation 222	both	sponsorship	11/5/2019	$ 200.00

Team Expenses				
Team #	Description	Date of Transaction	Date Received	Amount
Event Registration				
7373	FIRST Registration	1/1/2020	1/2/2020	$ 100.00
11364	FIRST Registration	1/1/2020	1/2/2020	$ 100.00
7373	League Registration	1/1/2020	1/2/2020	$ 100.00
11364	League Registration	1/1/2020	1/2/2020	$ 100.00

Robot Parts				
Smith family gift	Motor Upgrade – Team 1	9/14/2020	9/17/2020	$175.00
Robotics gift	Motor Upgrade – Team 2	9/15/2020	9/18/2020	$175.00
Transportation				
Robotics gift	Bus to Meet 1	10/12/2020	10/14/2020	$83.00
FIRST® gift	Bus to State	2/26/2020	2/29/2020	$92.00

Now What?

It's Never Too Late to Create a Business Plan

-You probably already have a lot of this information in your head, start compiling it in a document

-Use applications like Word, Google Docs, and many others to get started

Begin Budgeting Immediately

-Begin tracking this season's expenses now

-If you can, look at last season's expenses and create a projected budget

May be moved to the beginning of the presentation after importance?

The Team's Role

This is NOT a Solo Endeavor

-There should always be multiple team members involved in this process

-Business plan will reflect the perspective of the team as a whole, not just an individual

Share the Information

-Every team member should know what is in the business plan

-If it's in the plan, team members should have a general understanding of it

-Team members need to have a good understanding of Important phrases like mission statements

Presenting

Application

-Many corporations, and even families, will require a business plan when considering a sponsorship

-Always have your plan ready when giving a pitch

-Remember: While some organizations may not require a business plan when considering a sponsorship, it is important to have a plan to send

When visiting companies, talking to STEM professionals, etc., always have your business plan ready – you never know when you may need it!

Review of the Essentials

The Business Plan

-Design: make it colorful and neat, use high-quality pictures

-Information: keep it concise, develop phrases that readers can easily remember

Budgeting

-Stay up-to-date and organized, be transparent with sponsors

-Include expenditures and projected expenses, be transparent

General Rules

-Team should be knowledgeable about all content

Contact Info and References

Personal:

sarahmccune1@gmail.com

Eagle Robotics:

Eaglerobotics.net/workshops

Team7373robotics@gmail.com

FIRST:

Team Business Plan Overview – FIRST Inspires