Introduction

This document is meant to be a guide for teams creating a business plan for the first time. The plan follows the guidelines identified by *FIRST* for the Entrepreneurship Award and it is an interpretation of those guidelines. This is not an official *FIRST* document or *FIRST* reference.

This document lays out the different sections of a Business Plan and provides some definition of what might be included in those sections. In some cases it provides examples of what those sections could look like.

The Executive Summary that is provided is for a pretend team, Team 9999 "Robust Robotics". For the Executive Summary section, it seemed more beneficial to provide a "made-up" sample than to try and describe the sections.

Please use this document as you wish for creating your own Business Plan. It is meant to be a guide and a template and is offered for teams to use. If you desire, you can acknowledge "Cyber Blue, *FIRST* Robotics Team 234".

Some additional reference materials are identified below. Items 1 and 2 are located on the Chief Delphi "Media" section.

1. Cyber Blue 234 / 2012 Business and Continuity Plan <u>Click Here</u>
2. Cyber Blue 234 / 2009 Championship Presentation on Continuity Plans <u>Click Here</u>
3. SBA (Small Business Association) "How to Write a Business Plan" <u>Click Here</u>

Please provide any comments and feedback on the document, including any items that could be improved on or added, to <u>first@cyberblue234.com</u>.

We hope this guide and template helps you create a thorough and beneficial business plan.

Business Plan
Robust Robotics Team 9999

Executive Summary
Business Plan Summary

January, 2013

Business Plan – Robust Robotics Team 9999

Table of Contents

(These are items you might want to include in your plan. Items with an * are specifically identified by *FIRST* in the guidelines for the Entrepreneurship Award. Check the FRC award guidelines for details.)

Executive Summary – Robust Robotics Team 9999

Our Mission Statement:
Robust Robotics mission is to generate interest and develop skills in the fields of engineering science and technology in our local community. We strive to be an open and inclusive FIRST Robotics team so that we are inviting to all interested members of our school community. We strive to become involved with our middle school and elementary school and local youth programs to encourage students to participate in the *FIRST* Lego League (FLL).

Team Information:

BEGINNING: Our team was formed in September, 2012. Our first competition season is the 2013 FRC Game "Ultimate Ascent."

FOUNDERS: Our team was founded by our Principal and one student with *FIRST* experience from another school. Our Principal is still an active supporter of the team and the student is our Team Captain.

MEMBERS: For 2013, we have 7 students, 1 teacher, and 2 engineering mentors. Our teacher leader is Mr. Joseph, who is our Project Lead the Way instructor.

LOCATION: Our team is based out of Medium High School, Indianapolis, IN.

SPONSORS: Our major sponsors are our school, NASA, Big Company and The Computer Store.

WHAT WE DO: As a new team, our focus has been on generating interest in our school and community. We borrowed a robot from a local team and have done demonstrations in our school, at a local shopping mall, and at our elementary school. We are leading a food drive in our school.

RELATIONSHIPS: We received a NASA grant for our first *FIRST* season, and we will meet all of their requirements for document submissions and reporting. One of our engineering mentors is from Big Company. The Computer Store is new to *FIRST* and we are working to determine how we can work together on projects. We have a strong partnership with our school, our parent group, and local teams.

GROWTH: Since launching the team in September, we have obtained a NASA sponsorship and two local business sponsorships. We have added team members. We attended a fall "Forums" to learn about robotics and team management and attended a fall "Rookie Build Workshop" sponsored by IndianaFIRST.

PLANS: Our goal is to double our team size to 14 students and 4 mentors by October 2013. Each student will work to gain sponsorship from one small business. We plan to increase our food drive. We plan to support 3 *FIRST* LEGO League teams in our elementary school, and we will work to see how we can engage with our middle school and develop an FTC program. We have committed to IndianaFIRST to support one of their community demonstration events in the summer of 2013.

(This Section begins the Business Plan Guidelines and Template. Examples are provided in some places to offer ideas.)

1.0   Executive Summary

The executive summary provides a quick snapshot of the team. It is a one or two page document that provides key information. The goal of the executive summary is to give the reader enough information so that they have a basic understanding of the team and to create enough interest that they will want to read the complete Business Plan.

The sample on the previous page captures the key elements of a business plan "Executive Summary".

2.0   Program Summary

In this section, include more information about your team. Include information on special projects you have completed, any camps or other outreach programs, and possibly some of your high level goals.

3.0   *FIRST* Description

Although someone from *FIRST* or a *FIRST* judge would know about the program, you might want to use your business plan to approach new sponsors or to help start a new team. There is a great deal of good information on the *FIRST* website that can be used in this section – just be sure to reference the *FIRST* organization if you copy and paste information from them into your document.

This section could also include a discussion on what makes *FIRST* a unique competition. Philosophies such as Gracious Professionalism and Co-Opertition could be explained.

4.0   Team Description and History

In this section, discuss how your team started and give a little of the team history. How long have you been competing, and what events do you normally attend? Describe your team and team membership, partnerships, and anything that makes your team unique. If you have won any awards or recognition as a team, this is a good area to list them.

Describe your team and how you expect to grow in size or capability.

This section could be described as "telling your team story."

5.0   Team Impact

In this section, you could describe the impact you are having in your school or community. You can identify the benefits to student members and their college and/or career goals. Be specific and list details if possible. For example, instead of saying "we are increasing the interest in physics classes", say "five of our team members added physics to their class schedules after being a part of our team for just one season."

6.0   Team Structure and Organization

In this section, describe your team structure. This could be done in words or in a basic organization chart that shows the team leadership and members. Describe if your team is based as a class in the school, a club or a special school organization, or maybe describe if you are a Boys and Girls Club or 4-H based team.

This section might describe how your sponsors fit into your team structure. Do you have a mentor assigned to you from a sponsor or sponsor company volunteers? How is your team integrated into the school?

This section could also include information on student membership and any rules or guidelines for membership. It could also define how students join the team and any specific financial responsibilities that members have.

7. 0   Team Risks and Risk Management

All organizations have risks, and successful ones have ways of identifying those risks and managing them.

In this section, identify the key risks to your team and how you are working to minimize them or how you will deal with them if they occur. Some potential risks for your team might include the following:

        Loss of your major sponsor
        Loss of your build area at your school
        Loss of your key mentor or lead teacher
        Major machine damage that makes it difficult to make parts
        Loss of build time due to bad weather / school closings
        Theft of major equipment or robot parts
        Severe injury to a student or mentor
        Not being able to book hotels at the competition site

A common way to report risks is to identify what the risk is, then identify the impact if it happens. Finally, describe what actions you can take to help reduce the risk.

Risks should also be rated, so that the team can focus on the higher impact items. One rating structure looks at the "Likelihood", or probability, of a risk happening, and then the "Impact" if it does happen. A simple rating structure can be used, such as Low, Medium and High. A numbering system such as 1, 2, 3, allows for the Likelihood and Impact scores to be multiplied, for the creation of a "Risk Score". A higher score would indicate a higher concern level. With a 1, 2, 3 rating system, the Risk Scores would range from 1 (1x1) to 9 (3x3).

Examples of some risks and their details:

Risk – Loss of our Major Sponsor
Impact – May not be able to compete or buy materials to build our robot. Student fees might increase significantly.
Likelihood – Medium (2)
Impact – High (3)
Risk Score – 6 (2x3)
Action – To minimize this happening, we will be sure to send thank you letters to our sponsors and ask if we can do a demonstration or presentation to them to let them see the benefits of the program. To minimize the impact if it does happen, we will be careful in our spending, work to obtain several sponsors, and try to build a savings account for future spending needs.

Risk - No funds for robot update and travel if we qualify for CHP
Impact – Improvements and repairs to robot cannot be made, only part of the team may be able to travel, or students may have to pay extra fees to attend the CHP.
Likelihood – Medium (2)
Impact – High (3)
Risk Score – 6 (2 x 3)
Action - To minimize this happening, we will set and meet budget goals in the off-season, maintain strong relationships with team sponsors, and create an emergency savings account. To minimize the impact if it does happen, we will access the emergency savings account, seek help from local teams, and be creative with our design elements.

8.0 Team Planning

In this section, describe your team planning for the season and the rest of the year. Describe your build season and competition season plans. Describe your plans for the summer and fall and what actions and activities you expect to be involved in. Describe any special capabilities you hope to develop.

This section could be laid out in a narrative form or in the form of a calendar with specific items for each month identified.

9.0 Team Goals and Challenges

In this section, describe what your goals are for the short term and long term. This might include goals for the competition season, for the team as a whole, for individual students, and for the rest of the calendar year. Describe any specific challenges your team faces and how they can be managed.

9.1 Goals

Some possible goals are listed below.

9.1.1 Long Term Goals

1. All team members know and understand the philosophy of Gracious Professionalism and Co-Opertition.
2. Team membership grows by x%
3. Team sponsorship grows x%
4. We help start 1 new team each year.
5. Every student on the team graduates from High School
7. Every graduating student on the team applies for at least 1 *FIRST* scholarship

9.1.2 Short Term Goals

1. Complete our robot on schedule and be ready for practice day.
2. Win a Technical Award for part of our robot design.
3. Nominate a Mentor for the Woodie Flowers Award
4. Nominate a Student for the Dean's List
5. Complete and Submit a Chairman's Award Essay
6. Compete in an off-season event in another city
7. Host a full day workshop for FLL teams or students interested in forming an FLL team.
8. Explore launching an FTC team at our middle school or another local high school.

9.1.3 Individual Member Goals

1. All students maintain a GPA of X.X, with no grade below a certain level.
2. All students learn and document one new skill each year.

9.2 Challenges

What are special challenges your team faces and how can you address them? Some examples are listed below.

1. Build area only available on Saturdays.
   a. Can you meet at someone's home during the weeknights and do your major work on Saturday?
   b. Can you search for a new location?

2. Your lead mentor got a new job in another city.
   a. Can other mentors step in?
   b. Is the mentor available by phone or email?
   c. Can you work with another team?
3. Someone stole your robot during week 3.
   a. Can you contact *FIRST* or other local teams for help?
   b. Does another team have parts you can have or borrow?
   c. Can you merge with another team so you can still be a part of a competition?

Note: Challenges are different from Risks. A Risk is something that *might* occur. A Challenge is something that *has* happened or a special circumstance, and you need to determine a way to address it and manage your team.

10.0 Sustainability

In this section, describe what actions you are taking to be sure your team can compete next year and the year after that. Describe how you are developing and nurturing sponsors. Describe how you are working with your school to gain more recognition. Define plans to develop FLL or FTC teams in your community to help maintain interest and future team members. Many teams are able to obtain sponsors easily in the first year or two due to special grants and support options and because you might be considered a new and exciting program. The bigger challenges can come in year 3 and beyond so you need to identify how to prepare for that and assure the long term viability of the team.

Sustainability also includes retention of mentors. How are your mentors recruited, and do you have several or just one? Do you have a succession plan for a team leader if the current one leaves the team? These are all questions to be addressed in this section.

Note: Sustainability may be one of the biggest challenges a team faces. Current members and leaders should feel a responsibility to create and implement plans to assure the long term viability of the team. Leadership must be shared and new leaders nurtured to step into a new role. Budgets and financial planning are critical. Managing relationships with the school, sponsors, parents and the community create a strong support base to allow the team to endure a hardship. Creating new members through open houses and community events for older students maintains the team in the short term. Developing LEGO and FTC teams for younger students maintains the team for the long term. The more mainstream and ingrained in the community and school culture your team becomes, the easier it will be for the team to continue.

11.0 For More Information

In this section, let the reader know how to contact your team for more information. List your team website and main contacts or your school and school address. While this might not be needed by *FIRST*, it can be useful and helpful information for community members or sponsors.