FTC Engineering Notebook

Cover Page:

- Team Name
- Team number
- Location
- Logo
- Picture of team

Table of Contents:

Team Section:

- Team Mission Statement
- FIRST Description
- FTC Program Summary
- Team growth and development -
 - When founded, description, history
- Team leadership and organization -
 - O How is it structured?
- Team member/coach biographies
 - o First name, age (or grade), role on team, interests, reasons for joining FTC team
- Team relationships:
 - Sponsors
- Team failures and struggles and strategic plans to overcome these

Engineering Section:

Document the design, build, and testing stages of the robot

- Includes code development process (not necessarily just the code)
- Note engineering design process
- Include experiences/lessons learned from successes and failures
- Describe underlying science, mathematics and game strategies
- Describe robot design and design process leading up to it and how arrived at this design solution
- Detailed robot design drawings?
- Document control components?

Business Plan Section:

- Narrow it down to 1-3 goals that are manageable within this season
- Develop future goals that can be achieved the following or later seasons
 - The direction that the team wants to take
- Define what need to do to accomplish these goals
- Determine who is accountable for these goals
- Outreach goals/community service goals?
- Team budget

Financial Statement:

- Expenses (what, budget vs actual amount, category, explanation)
- Monies (what, budget vs actual amount, category, explanation)
- Totals

Sustainability Plan:

- Explains how the team plans to grow and stay competitive when students graduate from the program
 - Eg: plans to recruit sponsors, new mentors, or team members.
- How does your Team plan on continuing past this season?

- Are you training younger Team members in key roles as members graduate out?
- Are there plans for recruiting new members?
 - O What are they?
- Does your Team have plans on recruiting additional Mentors?
- How are you fundraising the costs of next season?
 - o Develop fundraising goals if needed
 - What are the team's fundraising needs?
 - o Registration?
 - O New parts?
- How are you and your Team leaving a legacy that will last beyond just this season?

Control Award Content Sheet:

Team contact info and outreach material

FTC Resources:

Game Forum Q&A - http://ftcforum.usfirst.org/forum.php
FTC Game Manuals – Part I and II - http://www.usfirst.org/roboticsprograms/ftc/Game
USFIRST.ORG

FIRST Tech Challenge (FTC) Page - For everything FTC.

FTC Volunteer Resources – To access public Volunteer Manuals.

FTC Season Events – Find FTC events in your area.

FIRST Tech Challenge Social Media

FTC Twitter Feed - If you are on Twitter, follow the FTC twitter feed for news updates.

FTC Facebook page - If you are on Facebook, follow the FTC page for news updates.

FTC YouTube Channel – Contains training videos, Game animations, news clips, and more.

FTC Blog – Weekly articles for the FTC community, including Outstanding Volunteer Recognition!

FTC Team Email Blasts – contain the most recent FTC news for Teams.

FTC Google+ community - If you are on Google+, follow the FTC community for news updates.

Award Categories that Require the Engineering Notebook

The chart below provides a quick overview of the Engineering Notebook requirements by Award:

	 Engineering Notebook must be submitted, and must include an
Inspire Award	Engineering Section, a Team Section and a Business or Strategic Plan. The entire Engineering Notebook must be high quality, thoughtful, thorough, detailed and well organized.
Think Award	 Engineering Notebook must demonstrate that the Team has a clear understanding of the engineering design process, with pictures or drawings and details documenting all stages of Robot design. Notebook must recount the Team's journey, experience and lessons learned throughout the season. Engineering Notebook must include entries describing underlying science, mathematics, and game strategies.
Connect Award	 An Engineering Notebook must be submitted and must include a Business or Strategic plan that identifies their future goals and the steps they will take to reach those goals. The plan could include fundraising goals, sustainability goals, timelines, outreach, and community service goals.
Rockwell Collins Innovate Award	 Team must submit an Engineering Notebook with an Engineering Section that documents the design process and how the Team arrived at their design solution.
PTC Design Award	 Team must submit an Engineering Notebook with an Engineering Section that includes detailed Robot design drawings.
Control Award	 The Engineering Notebook must include an Engineering Section that documents the control components.

You can read the full Award Descriptions on the FTC Awards webpage.