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2022 *FIRST* LEGO League Challenge

Kick-Off

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TEAM APOLLO
Ad Astra



Introduction:

Who are these people?







Competed in 12 FLL Seasons (starting our 13th)

Attended 12 National FLL Tournaments

Qualified for 11 International FLL Tournaments

Run 7 FLL Regionals

Judges, Referees, Teachers...

FRC Mentors





Competed in 7 FLL Seasons (starting our 8th)

Attended 6 National FLL Tournaments

Qualified for 6 International FLL Tournaments

Run 5 FLL Regionals

Judges, Referees, Mentors...



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Event Overview: Format

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Warning: We are about to cover a **LOT** of information.

- Our normal Kick-Off covers every aspect of FLL in talks and hands-on lessons.
- Our goal is to provide as broad a picture as possible, with everyone learning something.
- The Engineering Notebook and Team Guide can supplement the material we provide.
- We will be releasing these slides as a PDF
- ***You can find extra content in the 2021 FLL Conference***



<https://www.projectb.net.au/resources/kick-off/>

00:18:00 - Overview

00:24:18 - FLL Nut and Bolts

00:31:53 - Start Your Engines: Robot Design Highlights

00:41:51 - Start Your Engines: Innovation Project Highlights

00:53:08 - Start Your Engines: Robot Game Highlights

00:58:53 - Start Your Engines: Core Values Highlights

01:03:29 - Start Your Engines: Documentation Highlights

01:08:03 - Start Your Engines: Judging Highlights

01:23:17 - Best Practices: Innovation Project

01:52:14 - Best Practices: ProjectB Unofficial Rules (Innovation Project)

02:07:49 - Best Practices: Innovation Project Presentation

02:29:58 - Best Practices: Robot Game

02:50:24 - Best Practices: Robot Design and Strategy (Team Roles)

03:16:40 - Best Practices: Robot Design and Strategy (Robot Planning)

03:54:59 - FLL Discover and Explore Sneak Peek

04:22:43 – Resources / Panel Q&A



We're going to cover as many parts of the FLL as we can.

Post questions on the Slack #Kick-Off channel and we'll answer as many as possible at the end of each unit

There will also be a longer question time at the end of the session

We're going to start with an overview of Innovation Project, Robot Design and Core Values, followed by a study of the Robot Rules.

After lunch, we'll look deeper into FLL aspects, including what to expect from an in-person tournament.

Goals:

Improve Overall Quality of FLL Competition

Reduce Rookie Errors

Enable Team Success



10:10 am: Introduction/Format/Philosophy and Expectations

10:30 am: FLL Challenge Overview

10:45 am: Innovation Project Overview

11:05 am: Robot Design Overview

11:25 am: Core Values Overview

11:45 am: “Super Powered” Robot Game Analysis

1:00 pm: **Lunch**

1:30 pm: How to Run a tournament

1:45 pm: Deep Dive #1: Robot Design/Strategy

2:45 pm: Running the Robot Game

3:05 pm: FLL Explore and Discover

3:20 pm: Deep Dive #2: Innovation Project

3:50 pm: Deep Dive #3: Core Values

4:30 pm: Resources and Questions

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Event Overview: Philosophy and Expectations



From the Archives: Rule GP1

*You are “Gracious Professionals.” You compete hard against **problems**, while treating **all people** with respect and kindness.*

If you joined FIRST LEGO League with a main goal of “winning a Robotics competition,” you’re in the wrong place!

Limitations:

#1: We Don't Know Everything!

All information presented is based solely upon the experiences of Project Bucephalus and Team Apollo.

#2: We're not Perfect

Every idea can be improved. We can change our minds or be proven wrong!

#3: Never Stop Learning

Every point in this slideshow is in a constant state of improvement and re-assessment.



FLL Teams Should:

#1: Use their own creativity to create a unique robot.

Being inspired by other teams is fine, but go beyond copying – try and improve things!

#2: Make their own mistakes and discoveries

This is how we learn best

#3: Deal with failure as well as success

This can be harder than it looks

#4: Seek new challenges each season

Always set new goals

FLL Teams Shouldn't:

#1: Fail because of undetected, easy-to-fix issues

Cables coming unplugged anyone? If you're going to fail, you should try for new, spectacular mistakes!

#2: Be demoralised

There's no inspiration when a team fails continually without understanding why

#3: Be on their own

There's a wealth of knowledge to draw on


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