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# 2023 *FIRST* LEGO League Challenge

## Make Your Masterpiece...

Andrew Clark (Project Bucephalus)

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Isaac Clark (Project Bucephalus)

Angie Melville (Team Apollo)

Gary Law (Creator Academy)





# 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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## Part #1: FLL Overview



# For the Adults: An overview of a very strange competition...

## Teams that fail on their own succeed.

Adults that do too much hurt a team's chances of doing well. Judges can tell if an adult was too involved. (ProjectB relies on "Ceremonial Duct Tape")

## Mentors teach skills, teams choose how to use them

Provide guidance, give advice, teach HOW to do something, but stop there.

## A team's behaviour affects their score

Core Values reports, referees etc.

## What we learn is more important than what we win.

They're not kidding about this one. The best way to "lose" the FLL is to try too hard to "win" at it.

## More Than Robots...

The Robots are the exciting bit...but they're not everything. Don't forget Project and Core Values



# FIRST® Core Values



We are stronger when we work together.



We respect each other and embrace our differences.



We apply what we learn to improve our world.



We enjoy and celebrate what we do!



We explore new skills and ideas.



We use creativity and persistence to solve problems.



## Required Awards

**Robot Design**, **Innovation Project**, and **Core Values** are separate parts of the competition.

There is **one** award available in each category. Each team is restricted to one award.

The **Robot Game** is separate.

The **Robot Performance Award** goes to the team with the highest score (even if they already have a trophy)

**Coach/Mentor Award:** nominated by team members

*1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> Places added based on tournament size*



## Optional Awards

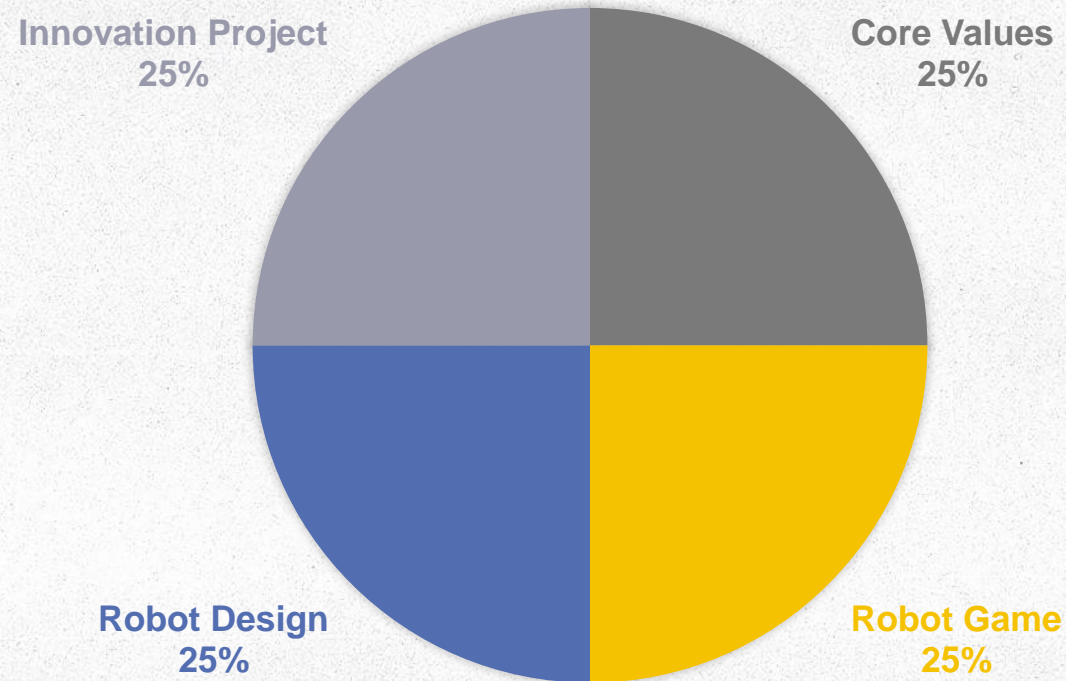
*(Included for large tournaments)*

- **Breakthrough:** A team that has made significant progress in their confidence and capability in all areas.
- **Engineering Excellence:** A team with an efficiently designed robot, effective Innovative Project solution and great Core Values.
- **Rising All-Star:** A team that the judges notice and expect great things from in the future.
- **Motivate:** A team that embraces the culture of *FIRST*



# The Champion's Award

Is awarded to the team with the best all-round ranking in **Robot Game**, **Robot Design**, **Innovation Project**, and **Core Values**.





**Based on tournament size, a few teams that excel in all categories progress to the next level of competition.**

**Regional >> National >> International**

### **Advancement**

**Follows Champion's Award scoring**

**Judging gets harsher as you advance to new levels**



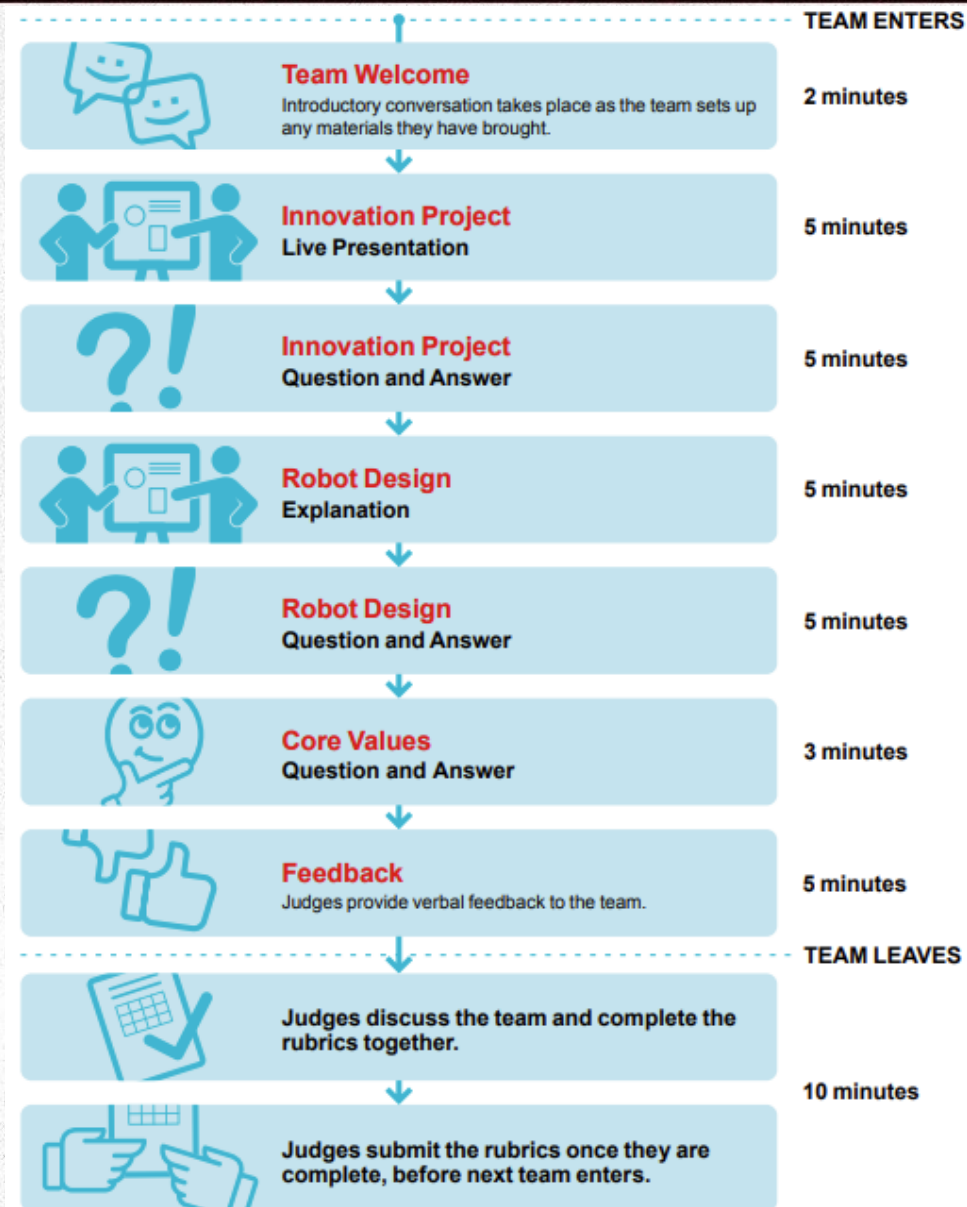
## Robot Game Outcomes:

- Highest Score gets the **Robot Performance Award**
- Gracious Professionalism score counted in Core Values
- Robot Game ranking is 25% of a team's **Champion's Award** score

**Robot Game has no other effect on the competition!**

**Pro Tip: Make sure your team parents understand this!**







# Judging Explanation

## Timing

One 30 min session per team. Limits on each section.

## Three Areas

A single set of judges will assess each team on Core Values, Innovation Project, and Robot Design. They will do this through observation and by asking questions.

## Rubrics

Each set of Judges will see a collection of teams and use the rubrics to rank them. After this, all judges meet to deliberate and rank all teams. This is where awards are decided.

## Results

- **Deliberations are secret. You never find out how your team ranked overall.**
- **One Award only (except for Robot Performance).**
- **Weird Stuff can happen: #1 Robot may not advance - #2 Robot may get nothing – A team may advance without an Award!**



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