



#### **Introductions!**



#### FIRST - It's not just about the robots

#### "The only sport in which every kid can go pro"

- **FIRST:** For Inspiration and Recognition of Science and Technology
- *Mission -* Inspire students to become science and technology leaders
- Four "Progressions" FLL Jr., FLL, FTC, and FRC
- Over 600,000 kids on 70,000 teams in 95 countries, plus 250,000 adult volunteers
- Opportunities!



#### **FIRST Pipeline**

As your child gets older, there are different programs that FIRST offers:

- FLL Jr. Kindergarten 3rd grade. Typically 2-5 kids
- FLL 4th 8th grade. Ranges from 4 10 people
- FTC 7th 12th grade. Lower budget robotics competition
- FRC 9th 12th grade. Us! We make 120 pound robots with around 60 active members, and rely heavily on Sponsors.



### **General FLL Team Logistics**

- FLL Teams have:
  - 2 adult coaches
  - 4-10 students grades 4-8
- Teams can be based in schools, organizations, or homes
- A student can only be on one team, but coaches and mentors can work with multiple teams
- Teams compete in both official and unofficial events





## **The Challenge**

- Each year has a robot game and a project that share a common theme
  - The robot is assembled from Lego parts
  - 4'x8' field layout is new every year
  - Research project proposes solutions to real life problems
- The challenge is announced in August, when a detailed manual and highlight video are released
- This year:





### **FLL Competition Video**

https://drive.google.com/drive/u/4/folders/15gaw5dTw3Mpj3EfbHkci4GUuumKjwmg E



#### **This Year in FLL**



LIGERBOTS FIRST, Robotics Team 2877

#### **Main Components of FLL**





### **Core Values**

- We are a team.
- We do the work to find solutions with guidance from our coaches and mentors.
- We know our coaches and mentors don't have all the answers; we learn together.
- We honor the spirit of friendly competition.
- What we discover is more important than what we win.
- We share our experiences with others
- We display Gracious Professionalism<sup>®</sup> and Coopertition<sup>®</sup> in everything we do.
- We have FUN!



#### How is the Robot Made?

- Start with Lego EV3 Kit
- Add parts to perform tasks
- Write software
- The robot must be completely autonomous
- Designed and programmed by students





### What is the Project?

- Related to the theme of the competition
- Research real-world problems
- Develop an innovative solution
- Come up with a creative presentation





## **Day Dragon's 2019 Presentation**



### **Season Schedule**

- Start up over the summer
  - Registration is currently open
  - *Registration closes when all slots are filled (typically in mid-September)*
- The challenge is announced August 1st at noon EST
- Build season is fourteen weeks
- Teams usually meet one to two times per week, but it is up to you to decide
- Competitions late November mid December



### **Parent Responsibilities**

- Communicate scheduling conflicts
- Be supportive
- Drop off and pick up on time
- Be involved and motivate your child
- Get involved with the team!
  - Treasurer
  - Graphics
  - Administration (T-shirts, fundraising, snacks, videos, pit management, food, carpool, etc.)
- Help with fundraising or obtaining sponsorships



### **Coach Responsibilities**

- Encourage and structure the process but let the team develop the content
- Ask questions to encourage the team's thinking and problem solving
- Read and understand the rules
- Keep parents informed
- Balance fun and competition

These are not coach responsibilities:

- Build and program the robot
- Do research and design project solutions
- You are NOT a football coach
  - Don't call the plays
  - Winning isn't everything



### **Student Responsibilities**

- Be positive toward everyone
- Be supportive of everyone
- Contribute to the team
- Respect coaches and others
- Do your share of the work and more
- Know your schedule and manage your time
- Make mistakes and share all ideas
- HAVE FUN



#### **Anecdotes: Continued**



#### So you want to start a team:

• One great way to start a team: friends! One huge way kids stay engaged is through friendships.

<u>https://tinyurl.com/ligerbotsfll2019</u> - Be sure to fill out this form before you leave

- We can help find coaches and mentors and students
- Costs are usually between \$500 \$1000 per team
- Teams need to have space for a table
- Timeline:
  - Registration closes when spots are full
- *Registration process* 
  - Start on the FIRST website: <u>www.firstinspires.org</u>





- Cost depends on number of mentors and sponsorships.
  - Registration which includes field kit \$299 every year
  - EV3 Robot set \$490 (discount at team registration) one time cost
  - Robot table build 4' x 8' table one time cost
  - Event fee \$75 to \$125 for each event -- every year



#### **Overwhelming? Don't Worry. Resources**

- Running an FLL Team can be confusing. Don't Worry! You can be a coach!
  - We may have coach workshops + teen assistants!
  - FLL Coaching Manual (FIRST website)
  - Google is your friend. Every problem has been solved before!
  - No programming or mechanical experience?
  - Empow Studios Opportunity
  - Reach out to us for specific help! (Email at the End)



### **Newton Competitions**

Free for spectators - come visit if you're not competing

- Qualifier in mid-November
- Eastern Massachusetts Championship in December

Past events have included

- Maker fair: exhibitors and STEAM activities
- FLL Jr. expo
- Concession stand



#### Who are we? FRC :)

- High school, ages 14-18
- Big robots:
  - 120 lb robots
  - Typically 2ft x 3ft x 4ft
  - Metal chassis with other material
- New game announced each January

How has FIRST Impacted me... and many more?





#### Chairman's Video: Competition and Our Season





#### **Sponsors**

Thank you to our team sponsors!









EDUCATE • INNOVATE • INSPIRE

NEWTON

Belmont SAVINGS BANK

How can we help vou?

















AcuityBio · Bose · Gamewright · PatientsLikeMe • Tanowitz Law Office, P.C.

"You-do-it" Electronics Center







# **Questions?**

If you have any outstanding or personal questions, please talk

with us after the presentation, or email me at

fll@ligerbots.com

https://tinyurl.com/LigerBotsFLL2019





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