FIRST LEGO League
2019-2020 Season Kickoff

Getting Started and Team Dynamics

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OMG… Where do I start?!!?
Key materials

Team registration (FIRST Dashboard)
Field setup kit (mat and mission model LEGO) 
Challenge document
Mindstorms EV3 kit
Robot game updates
More key materials

Join the North Texas FLL Google Group
http://groups.google.com/group/northtexasfll

Attend kickoff events and clinics
http://roboplex.org/fll/
http://perotmuseum.org/fll/
Getting started: Early season team activities

Review the challenge documents

Build the mission models

Learn about building with LEGO Mindstorms

Learn about Mindstorms programming

Begin project research, identify resources and contact experts

Analyze the missions and scoring
## Being a FLL Coach or Mentor

<table>
<thead>
<tr>
<th>Coaches:</th>
<th>Team members:</th>
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<tr>
<td>Inspire and guide</td>
<td>Decide on strategy</td>
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<tr>
<td>Teach new skills</td>
<td>Build and program</td>
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<tr>
<td>Handle logistics</td>
<td>Research</td>
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<tr>
<td>Ask questions</td>
<td>Choose problem/solution</td>
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<tr>
<td>Remind team of rules</td>
<td>Present</td>
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Kids come first;  
Kids do the work
2019 Challenge: City Shaper

Challenge document released August 1

Sections:
- Missions
- Robot Design Rules
- Robot Game Rules
- Field Setup
LEGO Mindstorms EV3 Education Kit

LEGO Mindstorms EV3 “brick”

Rechargeable battery, charger

Technic LEGO components
   Beams, axles, wheels, pegs, gears, etc.

EV3 electronics
   Motors, color sensor, gyro sensor, ultrasonic sensor, cables
Recommended first build

EV3 Education Kits come with instructions for building a simple “educator vehicle” robot

This robot is a good start for learning about LEGO parts, sensors, and programming
Organizing the team

Teams may have up to 10 members

Pm prefers mid-sized teams

Designate “role leaders” / “responsible parties”

- Captain
- Rules / strategy
- Project / research
- Robot construction
- Programming
- Communication / sharing
- Marketing

Every team has different dynamics; try to find what works best for the team

“Team” means “specialists”
Things to do/remember

Have the team set a goal for the season

Commit to attending a qualifier, don't back out even if the team seems “not ready”

Participate in a scrimmage

Don't feel like you have to know everything beforehand

The team members will figure things out

It's really a partnership

Be a “coach”
Team meeting dynamics

Every team is different

Recommended: Meet once or twice per week, 90 minutes (depends on your goals)

Okay to have smaller sub-group meetings

Programmers often need dedicated time with robot

Again: “Team” means “specialists”

Plan for lots of small iterations
Pm's FLL Season timeline

September:
  Getting started, team activities, project selection, game analysis

October:
  Skill building, project research and contacts, robot chassis and experiments, solve a mission or two, scrimmage

November:
  Project finalization, sharing, scrimmages, solve more missions, early Qualifiers

December:
 Qualifier events
Other coaching tips

FLL events take place beyond the North Texas region; including Oklahoma, Central Texas, etc.

“Espionage”:
Visit events you aren't competing at
Visit veteran team meetings and events

“Peek behind the curtains”:
Volunteer at an event
Become a judge or referee
Resources

Perot Museum FLL web pages
http://perotmuseum.org/fll/

Join the North Texas FLL Google Group
http://groups.google.com/group/northtexasfll

Roboplex.org
Attend kickoff events and clinics
http://roboplex.org/fll/
http://roboplex.org/fll/resources/
Questions and Discussion