FIRST LEGO League
2015-2016 Season Kickoff

Getting Started and Team Dynamics

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OMG… Where do I start?!?
Key materials

Team registration (TIMS)
Field setup kit (mat and mission model LEGOIs)
Challenge document
Mindstorms EV3 kit
Robot game updates
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

Kids come first;  
Kids do the work

Coaches:
- Inspire and guide
- Teach new skills
- Handle logistics
- Ask questions
- Remind team of rules

Team members:
- Decide on strategy
- Build and program
- Research
- Choose problem/solution
- Present
2015 Challenge: Trash Trek

Challenge document released August 30

Sections:

- Project
- Field Setup
- Robot Game Rules
- Robot Game Missions
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

November:

- Project finalization, sharing, scrimmages, solve more missions

December:

- Final tournament preparation, 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