



FIRST LEGO League
2015-2016 Season Kickoff

Getting Started and Team Dynamics

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FIRST LEGO League...

OMG... Where do I start?!?

Key materials

Team registration (TIMS)

Field setup kit (mat and mission model LEGOs)

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

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

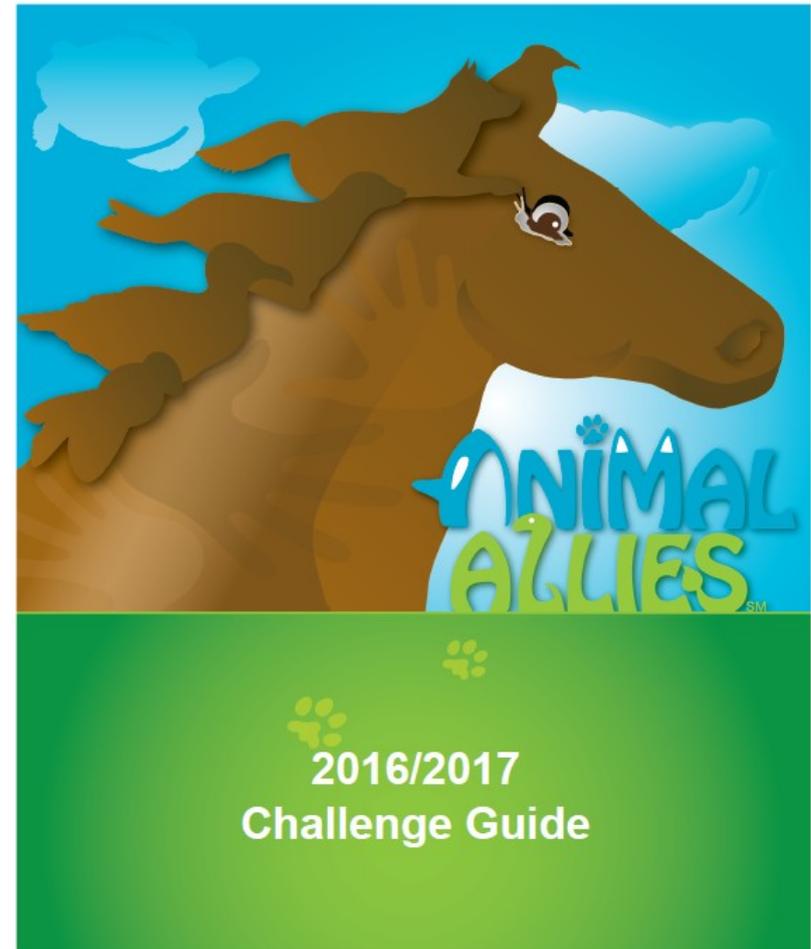
Sections:

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

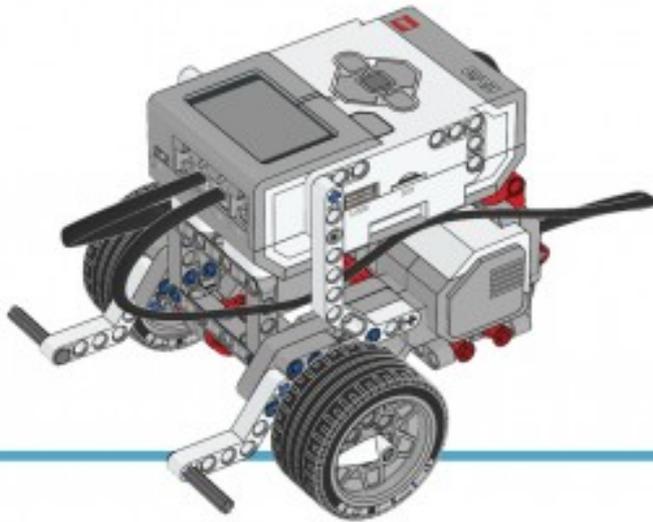
Motors, color sensor, gyro sensor, ultrasonic sensor,
cables



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

Programming

Project / research

Communication / sharing

Robot construction

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/>

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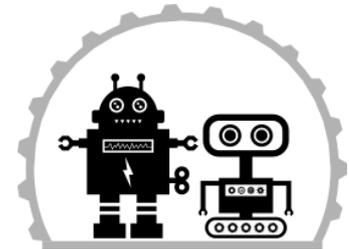
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<http://roboplex.org/fll/resources/>





Questions and Discussion