



What to expect if you are a **FIRST® LEGO® League Coach/Mentor.**



It is important that persons applying considering being an FLL Coach to have an understanding of the **FIRST® LEGO® League** program and what to expect.

What is a **FIRST® LEGO® League (FLL) team** and what do they do?

If you visited a FLL team meeting you would see 6 -10 kids, ages 9 – 14, working with a NXT LEGO Mindstorm Robot kit. A few kids would be using the 1000+ parts in the kit to construct a LEGO Robot with motors, sensors (Light, Touch, Ultrasonic-distance and/or Sound) and the NXT brick that acts as the robot's computer. The robot would also have 3 or 4 wheels to help it move around.

Other kids would be at a 4' x 8' mat in a FLL competition table with annual challenge mat (2011-Food Factor) LEGO mission Models. They would be figuring out strategies for the robot's path or working with LEGO parts to construct attachments for the robot push, pull or lift items on the mission models to achieve the task.

Other team members are on the internet/looking in books researching the team's Project. The Project is a 5-minute presentation of the team's solution to the Food Factor Project Challenge.



What is in an FLL NXT competition kit:

- [NXT kit Base Kit](#)
- [Education Resource Kit](#) - Extra LEGO Elements
- [NXT-G Software](#)



When an FLL team registration is purchased the above items are bundled and sold at a discounted cost of \$420 (plus S&H)

Click link for [video explanation](#) of a previous year's robot mission.

See this link for [details of last year's Project](#)

What every FLL team needs:

Provided by the Team!

- FLL Competition NXT Robot Kit
- Food Factor™ Field Set-up Kit (annual challenge)
- A FLL 2011 Team Registration (comes with Coach handbook/ info DVDs)
- ORTOP Qualifying Tournament Registration
- A place to practice at least once a week, twice a week is better.
- A computer with a XP operating system or Windows 7 or Mac OS X
- Committed Coach(es)!
- FLL Competition Table for the competition mat. Optional but is recommended.



What is the Coach doing?

The coach is facilitating the team's progress, helping them with teamwork skills, helping them find resources, teaching the robot building and programming skills she/he learned at the ORTOP free coach workshops, serving snacks, keeping the team on task. It is up to the kids to solve the challenge. The Coach is encouraged to enlist other adults to help with these activities.

For Workshop Information: <http://www.ortop.org/fll/res.htm#work>

What else does a FLL team coach do?

A lot, coaches are the heroes of *FIRST* LEGO League! This list of tasks can be divided among several adults depending on your school, program, organization or club situation. In a timeline order:

- **May – Sept. 1:** Find kids (and adults willing to help) who want to be on a FLL team. Earlier the better!

- **June – Sept:** Attend the required free ORTOP training workshops. [Click here](#) for registration

- o Or attend [SuperQuest LEGO Robotics week](#) long training (www.techstart.org)

- o Apply for an ORTOP Scholarship if team school/parents/organization unable to pay all or part of the costs.

- **July – Sept.**

- o Make sure you or ORTOP has registered your team. Know your FLL Team #.

- o Plan for transporting your team to the Qualifying Tournament.

- o Buy materials to build a [competition board to suit your needs](#).

- **Summer:** Arrange for a meeting place and schedule. Recruit other adults to help you with the team!

- **Spring – mid-Sept:**

- o **Read your *FIRST* LEGO League coach handbook!**

- o Look at robot and tournament materials as they arrive.

- o Recruit team members; be inclusive and try to include girls and underserved kids who might not otherwise participate. If you need team members, sign up at [FIRST® TeamUp!](#)

- o Create a Meeting Plan and make parents/students aware of the ground rules. Some coaches put this in writing. It's your decision.

- o Conduct team meetings 1 – 3 times a week from September (early October) until the Qualifying tournament. This is your choice.

- o 1st Task – Assemble the FOOD FACTOR Mission Models and figure out a Team Name!

- o New Teams usually attempt 2 – 4 missions their first year and complete The Project presentation.

Only 3 teams have successfully completed all of the missions at competition in ORTOP's ten years!

- **September 2nd** – *FIRST* LEGO League releases the FOOD FACTOR Challenge to the WORLD!

- **Oct 1 – 12:** Register your team for a ORTOP Qualifying Tournament

- **November:** Practice the Project in front of other people if possible, practice doing your robot runs in 2.5 minutes, practice answering judge questions, make up questions from the rubrics in the handbook.

- **December:** Attend the Qualifying Tournament and have FUN!



What is the Tournament like?

Check out this video! [GET IN THE GAME!](#)

The Qualifying Tournament is divided into 4 Parts. Each team is assessed in these areas.

- o **Robot Performance** – making your robot run on the board and complete its programmed missions.
- o **Robot Design**– meet with a friendly panel of judges who ask your team about their robot’s design and its programming
- o **Project**– make your 5-minute Food Factor Project Presentation in front of another friendly panel of judges and answer questions
- o **Core Values**– teamwork and gracious professionalism and being inspired are key values of FLL. The team is asked to do a surprise and fun teamwork activity for panel of judges and answer questions.



The tournament also has opening and closing ceremonies, an opportunity to meet other teams, see other robots, experience new things. Compete in friendly, sports-like tournament with the knowledge that “what is discovered is more important than what is won”.

Whatever your team’s “state of ready”attend the tournament!

WHAT SHOULD I TRY TO ACCOMPLISH?

The team needs you to give them guidance and provide structure, encouragement, and most of all a fun experience. You should help your kids have fun with their robot while they get comfortable with technology and learn something about a real world problem. Team members win just for participating.



Resources:

- *FIRST*®LEGO® League provides an online forum for coaches.
- FLL Game Rulings page
- ORTOP requires scholarship coaches to attend our free workshops.
- Official FLL Coach info will be sent to your email box on an as needed basis.
- The ORTOP Workshop Instructors welcome your questions during the season.
- ortopfl listserv: ORTOP will keep you updated of important information and tips!
- ORTOP tries to recruit industry engineers and technical people to be technical mentors for teams. A few people volunteer each year and we try to match teams to mentors. Don’t count on a match. You can coach a team successfully even if you are not technically inclined.



[FIRST LEGO League International website-www.usfirst.org](http://www.usfirst.org)

[Oregon FIRST LEGO League information and website-www.ortop.org/fli](http://www.ortop.org/fli)