

## The FLL Project

Hosted by Senior Mentor, FLL Coach, and FLL Partner  
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### **Resources for the Project:**

**Coaches' Handbook\*** – Chapter 5

**FIRST LEGO League Challenge Project Training DVD\***

**Project How to Guide:**

**Interview Guide:**

**SMART MOVE Project:** [www.firstlegoleague.org](http://www.firstlegoleague.org)

**FLL Project Topic Guide and related Curriculum:** [www.firstlegoleague.org](http://www.firstlegoleague.org)

**FLL Blog:** [www.firstlegoleague.org](http://www.firstlegoleague.org)

**Send questions about the Project to:** [flprojects@usfirst.org](mailto:flprojects@usfirst.org)

**FLL Forums** – opportunity to talk to other coaches but keep in mind these are not official answers

\*In Registration packet

**Please contact your local FLL Operational Partner for the specifics for the FLL program locally including training and tournaments. To find your FLL Partner go to the *FIRST* LEGO League website and click on 'Regional Contacts' in the left hand navigation.**

## **THE FLL PROJECT**

### **1. BASICS**

- a. The two most important things from New Coaches Orientation 101 and 102 still apply to the Project.
  - i. HAVE FUN!
  - ii. THE KIDS DO THE WORK!!
- b. The coach's role in the Project is to facilitate, guide, and encourage the process. The team handles the content. You should also remind the team of the timeline and where they stand. Don't spend too much time on any one step; you'll need to keep moving. Pages 93-96 in the Coaches' Handbook has a sample of week-by-week milestones.
- c. The Project – just as important as the robot. Why do we do a Project?
  - i. This is what scientist do. It is an important part of the scientific process. Remind the team what *FIRST* stands for (For the Inspiration and Recognition of **Science** and Technology). Notice there is Science, not just Technology. Thus, the project is just as important as the robot.
  - ii. Each part of FLL is important – each part will emphasize different but equally important skills.
  - iii. Although all teams will be studying "SMART MOVE", Projects will all be different. Just as each robot will be different at the competitions, so will each project. This is one of the great things about FLL; there is no one correct way!! You will be amazed at the variety and creativity of what kids can achieve!!

### **2. UNDERSTAND THE THEME**

- a. Research the "SMART MOVE" theme.

- i. Read the challenge very carefully.
- ii. Refer to the many resources that are provided.
- iii. Use other resources such as books, the internet, newspaper articles, magazine articles, documentaries, etc.
- iv. Talk with experts in the field. Have the team brainstorm on the many types of experts that work in this field.
- v. Be sure the entire team has a good understanding of the theme and can talk about the topic chosen.

### **3. IDENTIFY A PROBLEM THAT EXPERTS FACE.**

- a. When talking with experts and doing research, see what types of problems there are related to the topic.
- b. These will be real world problems. Your team will be like a group of scientists conducting research.
- c. Learn how scientists are dealing with these problems.
- d. Brainstorm on what problems interest the team.
- e. Come up with one problem that the team would like to address and then focus on that.

### **4. DEVELOP AN INNOVATIVE SOLUTION TO THE PROBLEM**

- a. What does innovative mean?
  - i. A new idea.
  - ii. An improvement on an idea.
  - iii. A creative idea.
  - iv. Use of an existing idea but in a new way
  - v. Does not have to be complicated to be innovative.
  - vi. Does not have to include robotic solution, can be technological, robotic, engineering but doesn't have to be
  - vii. The solution must be supported by data
  - viii. The Judges will be looking for research quality, innovative solutions and creative presentations of the complete Project
  - vi. "KISS" – Keep it Simple Silly can work!!
- b. Well thought out and researched.
  - i. Work with scientists, experts, engineers, etc. on this.
- c. Does it have to be doable?
  - i. no but it has to be feasible in some way

### **5. SHARE YOUR FINDINGS WITH YOUR COMMUNITY**

- a. What did you learn about the "SMART MOVE" theme/topic?
- b. What did you identify as the problem?
- c. What is your innovative solution?
- d. Has the team done anything to "make a difference"?
- e. Who to share with?
  - i. School or town
  - ii. Public organizations
  - iii. Church
  - iv. Public meetings
  - v. Educational events
  - vi. Library

- vii. Youth organizations
- viii. Professional organizations
- ix. Scientists, engineers, experts, etc. that you worked with during the season.
- x. Etc.

## **6. PREPARE A 5 MINUTE PRESENTATION**

- a. Summarize all of the above into 5 minutes for the judges!
- b. Be creative in the format:
  - i. Skits
  - ii. Game shows
  - iii. Songs
  - iv. TV interviews
  - v. Plays
  - vi. Audiovisual
  - vii. Etc.
- c. Content – important! Be sure the team includes all they learned during their season. Look at the rubric in the coach’s manual.
- d. All members should participate and be able to answer questions. There will be a 5 minute Q & A time after the presentation (this may vary by region).
- e. IMPORTANT – the 5 minutes includes set up!! Keep it somewhat simple so too much time isn’t spent setting up. Team members are responsible for all aspect of set up for the presentation - include this when you practice.
- f. Simple props and costumes can be used.
- g. Special equipment – will vary by tournament. If you are using audiovisual equipment, have a plan B in place!
- h. Keep a binder of all the team’s research, articles, pictures, etc. to show the judges.

## **7. THE SMART MOVE Project – see the Project overview on the FLL website**

The SMART MOVE Challenge focuses on the ways in which we access the people, places, goods and services in our lives, and asks teams to determine how to do this in the safest, most efficient way possible.

## **8. Question/Comments**