

## Jr. FIRST LEGO League in [school's name]

This document was written by XXX as a proposal for how to start and sustain Jr. FLL teams in XXX Elementary school for the 15-16 school year and on.

### 1. Forming the teams

Send out the application forms for FIRST (For Inspiration and Recognition of Science and Technology) Lego League Jr. (FLL Jr.) to all the students grades 1-3 in the school newsletter and via class emails. The application includes the student's name, grade, summary of why they are interested in being on a team, and parent availability. We recommend notifying parents that if they commit to being a parent volunteer, their son/daughter automatically gets a spot on a team.

Have an informational meeting for all kids that are interested, parents invited. This would be held as soon as possible in the school year. Parents and students would get the chance to see what Jr. FLL is and turn in their applications if they want to commit to being on a team. Have interested families give the school's coach their email address.

The school's coach would then process the applications in a pre-appointed time frame. He/she would create the teams based on parent availability, student availability, grade level, etc. The max size for Jr. FLL is 6 kids. Each team also needs 2 parents committed to coach the team. A [your FRC/FTC team] mentor would be assigned to each team as needed. I recommend that you don't have more than three teams at your school for the school's rookie year, and then never more than five teams at a time.

## 2. The Jr. FLL season

This can be condensed or expanded depending on school needs, although this schedule provides the students with plenty of time to get comfortable enough with the material to make the projects truly their own and learn the most possible.

<i>Suggested dates</i>		<i>Main Goals (1 meeting/week)</i>
ASAP	<i>Pre-season</i>	Introductory parent/student meeting
Nov. 30-Dec. 4	<i>Week 1</i>	Introductions Icebreaker game What is Jr. FLL? FIRST intro video Simple machines overview part 1 Divide into teams Start LEGO education exploration
December 7-11	<i>Week 2</i>	Simple machines overview part 2 Choose team names Brainstorm about challenge topic Start researching
December 14-18	<i>Week 3</i>	Design team logo Choose a project topic Team survey Continue LEGO education exploration
		<b>(Winter Break)</b>
Jan. 4-8	<i>Week 4</i>	Continue researching Choose a project problem
Jan. 11-15	<i>Week 5</i>	Finish LEGO education exploration
Jan. 18-22	<i>Week 6</i>	Finish researching Create bibliography Decide on solution
Jan. 25-29	<i>Week 7</i>	Learn to Learn p.22 (My Machine Invention) Engineering design process Sketch designs of model Start building
Feb. 1-5	<i>Week 8</i>	Introduction to Lego WeDo programming software Include the motorized component and revise model
Feb. 8-12	<i>Week 9</i>	Edit/revise/test/program model Start the Show Me! Poster

Feb. 15-19	<i>Week 10</i>	Edit/revise/test/program model Finish Show Me! Poster
		<b>(Conferences)</b>
Feb. 29-March 4	<i>Week 11</i>	Finalize Show Me! Poster and model Practice presentation
March 7-11	<i>Week 12</i>	Present and Share
March 7-11	<i>Week 12</i>	Celebration
		<b>(Spring Break)</b>

### 3. Funding

A budget is outlined below for the 2015-16 season assuming your school starts three teams. You will note that the total cost/team goes down considerably after your school's first year. This is because you only need to buy the LEGOs once, and they can be used year after year. Each student would be expected to contribute some amount of money to the team. I suggest \$50, which would mean that eventually the program would be self-funded, but that amount can be adjusted.

Bonus funds from future years can be put toward starting new teams, starting an FLL team, or expanding your school's MakerSpace.

#### Expenditures for Fellows 2015-16

\$50 Registration fee  
\$210 Base kit  
\$230 Robotics kit  
\$5 Base Plate  
\$10 Show Me! Poster materials  
\$60 Students' t-shirts  
**\$565 Total Cost/team**

#### Expenditures for Fellows 2016-17 and on

\$50 Registration fee  
\$10 Show Me! Poster materials  
\$60 Students' t-shirts  
**\$120 Total Cost/team**

#### Income for Fellows 2015-16

\$300 PTO  
\$50 Per student (x18)  
\$500 local sponsors  
**\$1700 Total Income**

#### Income for Fellows 2016-17 and on

\$50 Per student (x6)  
\$0 PTO  
**\$300 Total Income/team**

*The price for each student to participate is up to the school. I made up calculations above according to a \$50 registration fee, which is a good starting amount.*

#### 4. Sustainability

Jr. FLL can be sustained at XXX Elementary with the continued support of the PTO, Local FRC and FTC teams, parents, and teachers.

The PTO would sponsor the teams by allowing them to meet at XXX and fund startup costs.

Each team would have at least one FIRST Robotics Competition (FRC) mentor assigned to them to help guide discussions and provide advice.

Parent support is also necessary for Jr. FLL to be sustainable at XXX school. Two parents would be needed to coach each team. Coaching the team could include, but would not be limited to, leading team meetings, leading discussions about the research project, helping the team stay on task, bringing snacks, and sending out team emails.

#### 5. Additional Resources

For more information about FIRST, visit [www.firstinspires.org](http://www.firstinspires.org)

For more information about Jr. FLL, visit <http://www.firstinspires.org/robotics/fljr>

What is FLL Jr.? FIRST intro video: <https://www.youtube.com/watch?v=woTha00lhvE>