

# LEGO LEAGUE INFORMATION

Dear Parents/Guardians,

This handout is to give you more information on the First Lego League program. In this class, your child will learn basic building and programming techniques using LEGO Mindstorms robotics sets. They will also be exposed to the various sensors that the robots can use, such as light, touch and sound. Your child will also learn to build and program their robots to perform mini-tasks. In addition to the robots, children will look at beginning computer programming using the SCRATCH programming language for children. This class is for students ages 9-14. The class will also participate in competition that includes multiple elements.

FIRST Lego League generally releases the new challenge in mid-September with a Texas statewide tournament in early December.

We can have from 2-10 students on the team, with an age range of 9-14 years. To be eligible, a child must not exceed the maximum age on January 1 of the year the Challenge is released. For example, in the U.S. a student who turns 15 in May of 2016 would be eligible to compete in the Challenge released in August 2016, whereas a child who turned 15 in December 2015 would not.

For those of you who may not be familiar with FIRST Lego League – I want to give you an overview of what the program is and what the team will accomplish come tournament time.

The first few weeks the students will become familiar with concepts, robotic equipment, building and programming. This allows them to be familiar with the Lego Mindstorms equipment as well as the software to program their robots.

When the new challenge is released in September the team will receive this year's challenge mat that rolls out onto a 4' X 8' table. They will then build several components out of Legos that will be set on the mat. The students will program their robots to perform specific missions using these Lego components. They may have to lift items, move them to a specific place on the map, or unhook elements. For example, a previous year's challenge was "Ocean Odyssey." The missions consisted of an artificial reef (that had to be retrieved), dolphin (that had to be released back into the ocean), sharks, fish, treasure chest, pipe system, platform boat, etc.

In October the children will work on their robots and their programs as well as a research project. There are three objectives for the competition in December.

First is the robot competition, in which each team's robots compete against another team in a tournament. Second is the research project presentation, where the kids have to present to a panel of judges within a 5 minute period. Third is the technical presentation where the kids have to present in 2 minutes to another panel of judges why they built and programmed their robots the way they did to get through the missions.

In November the team will finish building and programming their robots. By the last two weeks of November the team should have completed the building, programming, and research project/presentation and will also practice their technical presentation. During the last two weeks the team will practice, practice, practice. They will practice running thru the field in the allotted 2 1/2 minutes and to get the most points possible as well as polish up their project and technical presentations. Since it is a team there will only be one project and technical presentation for the team. Additional practice times and sessions may be added during this month to make sure the team is ready for the competition in December.

December is competition time. The competition that the team will attend is usually held here in the Houston area.

Class will be held on Tues and Thursday afternoons from 4:00-5:00 pm. Additional classes will be added as needed to make sure the students are prepared for tournament. Tuition for the program is \$250 per student. This includes all classes from Sept-Dec.

After the tournament, we generally enjoy working on programming and building and create "Battle Bots" and have tournaments. Tuition for students who wish to continue with robotics is \$60 a month, and new students can join at this time.

**REFUNDS:**

Creating a Lego League team is very costly, there are numerous materials to be purchased as well as team registration and tournament fees. There are also very limited spots available, and students need to be committed for the entire session for the benefit of the team. Therefore, there are no refunds if you decide not to continue. There are also no refunds or make-ups available for missed classes. However, if you notify us that you wish to withdraw and we are able to fill your spot we will issue a refund.

You can also visit the website: [www.firstlegoleague.org](http://www.firstlegoleague.org) for more information.