



PVEF Robotics Roundup 2016



Welcome to **ROBOTICS ROUNDUP!**

Robotics Roundup is Pleasant Valley Education Foundation's most exciting technology-based program. 2016 will be the 9th year PVEF has provided Camarillo's youth the opportunity to participate in *FIRST* LEGO League.

***FIRST* LEGO League**

PVEF sponsors teams from public schools in Camarillo. Each team will be formally registered with *FIRST* LEGO League ("FLL"). This season, individual team members will also be registered with *FIRST*.

In 1998, *FIRST* (For Inspiration and Recognition of Science and Technology), a non-profit organization, and the LEGO Group joined forces to create *FIRST* LEGO League. Now in its 19th year, FLL boasts over 28,000 teams in over 80 countries. Thanks to thousands of volunteers and hundreds of companies, universities and professional organizations who support the teams, tournaments and operational partners around the world, FLL has grown steadily over the years. Over the past several years the teams in the Los Angeles area grew from a few dozen to 300+ last year. The Camarillo teams have been a big part of that!

To find out more visit FLL at <http://www.firstinspires.org/robotics/fll> and be sure to check out the YouTube videos of FLL in action.

The FLL Robotics program is designed to get children excited about science and technology, and teach them valuable employment and life skills. This program is an opportunity for students ages 9-14 to participate in a technology-based after-school activity which includes design, building, testing and programming of autonomous robots to accomplish challenge missions. The activity also includes a project in which the children create an innovative solution to a real-world problem. The project requires research, analysis and presentation. The FLL season culminates in one or more tournaments which give the teams exciting competitive opportunities.

2016 Theme:

ANIMAL ALLIES



Global Challenge Release

**30 August 2016
12 PM EDT**

Get ready. Get set. Roar! Or you could bark, quack, or squeak, because the 2016 ANIMAL ALLIES season is all about our furry, feathered, and finned friends. In the 2016 *FIRST*® *LEGO*® League Challenge, more than 28,000 teams of students age 9 to 14* will look into the eyes of our ANIMAL ALLIES. What might become possible when we learn to help each other?

FIRST LEGO League (*FLL*®) challenges kids to think like scientists and engineers. During the ANIMAL ALLIES season, teams will choose and solve a real-world problem in the Project. They will also build, test, and program an autonomous robot using *LEGO MINDSTORMS*® technology to solve a set of missions in the Robot Game. Throughout their experience, teams will operate under FLL's signature set of Core Values, celebrating discovery, teamwork, and Gracious Professionalism®.

Teams:

- ◆ Teams may be made up of 4-10 students ages 9 to 14 (as of 1-1-16)- (typically 4th – 8th Grades)
- ◆ Teams will probably meet once or twice a week. They can start meeting in the summer or as soon as they have a robot kit and software.
- ◆ Each team needs two adults - at least one coach and an assistant coach and/or mentor. Coaches do not need any technical experience. In FLL the children do all the work.
- ◆ Teams will be organized at each school. PVEF will not place children on a team. Teams are not official activities of the school or school district; this is a PVEF activity. Teams may have members from more than one school or home school.
- ◆ Teams will be registered online by coaches or school coordinators starting May 24, 2016, on the PVEF website www.pvef.org . Team registration will close September 9, 2016.

Participation fees:

- ◆ In 2016, each student participating in FLL will pay a fee of \$50.00 to PVEF. This fee will be paid to PVEF after the team has been registered by the coach. Each team member will register online at www.pvef.org/events . Payment may be made by credit card or by check or a confidential financial hardship waiver may be requested.
- ◆ Individual registration will stay open until September 23. Any changes to the teams after that date shall be made by contacting PVEF at dpatnoe@pvef.org .
- ◆ Individuals must be registered with PVEF to receive a shirt and to participate in the camps and tournaments.
- ◆ Official registration of individuals with FIRST is required this season. Coaches will be provided details at the Coaches' Workshop.

PVEF will provide:

1. LEGO NXT MindStorms Robot set The NXT set will remain property of PVEF but may be used by the school team as long as a team is participating in FLL or until PVEF requests it be returned. New teams will be provided with a new NXT set or a set from another team. For 2016 PVEF will not be providing the new EV3 technology but teams are welcome to purchase it on their own and use it.
2. MindStorms software. Teams continuing from 2015 already have software. New teams will receive access to software with NXT sets once they are registered.
3. Field setup kit - typically available in early August. Where possible, the field setup kits will be shipped directly to the coaches; otherwise coaches will be notified when the kit is available for pick up.
4. 2016 FLL registration fee (paid directly to FIRST by PVEF for each team)
5. T-shirts for team, plus two adults.
6. Coaches' Workshop, New Coach Programming Basics and Challenge Kickoff Workshop
7. Robotics Camp (\$15 additional fee per child per day)
8. Camarillo Practice and Qualifying Tournaments.

Local teams with members who are not Camarillo public school students are welcome to participate in our workshops, camp and tournaments. Fees will be applicable for the camp and tournaments.

Teams will provide:

1. Coach
2. Mentor and/or Assistant Coach
3. Liaison with PVEF (if other than coach or mentor)
4. Laptop computer(s) with internet access for programming and research
5. Place to meet with space for 4' x 8' playing field, secure storage for robot set, partially completed robot and mission models
6. Table for field mat (may be constructed per instructions on FLL website)
7. Optional additional robots and/or components
8. Tournament expenses (PVEF will cover tournament fees for practice and qualifying tournaments. Teams will be notified regarding Championship.)
9. Optional secondary team sponsor(s) (to help with #6, #7 and #8)
10. Additional volunteers to assist with team and at least one volunteer to help with the tournaments

11. Enthusiasm!

Team T-Shirts

- == Designs and orders to PVEF by September 23. Coaches will be provided more details at the Coaches' Workshop.
 - == Extra shirts may be ordered for \$12 each.
 - == Target delivery date during the week of October 17.
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Summer Robotics Camp

July 25, 26 and 27 (Dates tentative). 9:00 AM - 1:00 PM.

PVEF will host three robotics camp sessions. The first will be at the "Basic" level and directed to new teams and team members. The second session will focus on Line Following, a valuable technique. The last session will be at the "Advanced" level and will include tips and tricks for successful robot building and programming. Teams may attend any or all sessions. Instructors: Debbie Hager and Carey Smith. Camarillo location will be announced to those who registered at a later date.

All students attending must be supervised by an adult, who may be their coach or some other parent. The required ratio is one adult per five students. Generally, the teams will be organized by team but we will combine small groups where feasible. It is not required for an entire team to attend.

Individuals may register for the Summer Robotics camp at the time they register for the FLL Program at www.pvef.org. The cost is \$15 per day. Financial hardship waivers are available.

Information and Updates

Please check www.pvef.org/fllblog for updates , forms and information.

2016 PVEF FLL CALENDAR

PVEF FLL Informational Meeting
Team Online Registration

@ www.pvef.org

Individual Online Registration

PVEF Coaches' Workshop
and kit distribution

New Coach Programming Basics
Workshop - Part 1 and 2

Registration for Robot Camps

@ www.pvef.org

PVEF Summer Robot Camp-(Basic)

PVEF Summer Robot Camp-(Line following)

PVEF Summer Robot Camp-(Advanced)

Robotics Olympics

Global Challenge released by FLL

Challenge Kickoff Workshop

Team T-Shirt orders due

Team T-Shirts delivery (target date)

Tournament applications

Tournament season

PVEF Camarillo Practice Tournament

Mesa Union Practice Tournament

PVEF Camarillo Qualifying Tournament

La Reina Qualifying Tournament

Los Angeles Region Championship

FLL World Festival

May 24, 2016 Rancho Rosal MPR

May 24 - September 9, 2016

May 24 - Sept. 23, 2016

June 17, 2016 6:30 PM - 9:00 PM

Location tba.

July 8 & 15, 2016 7:00PM-8:30 PM

C. Smith residence.

May 31 - July 20, 2016

July 25 9:00 AM -1:00 PM (tent.)

July 26 9:00 AM -1:00 PM (tent.)

July 27 9:00 AM -1:00 PM (tent.)

August 13, 2016 (tent.) Details tba.

August 30, 2016 9:00 AM PDT

Sept. 1. 6:30-8:00 PM. Location tba.

September 23, 2016

October 17, 2016

August-September (details tba)

October - December

October 29, 2016 (tent.) Details tba.

November date tbd Somis

Nov. 12, 2016 Monte Vista MS (tent.)

November 20 - Thousand Oaks (tent.)

December 2016. Details tba.

April 19-22, 2017. Houston, TX

More info:

www.firstlegoleague.org/

<http://mindstorms.lego.com/>

www.pvef.org/fllblog

<http://www.la-fll.org/>



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