



*Los Altos Robotics*  
*FIRST LEGO® League*  
2014 Parent Orientation Meeting  
September 2, 2014

Please sign in





- But first a quick survey:
  - How did you find out about tonight's meeting?
  - Who is undecided about joining FLL?
  - Who is a rookie who has decided to join but needs more information?
  - Who is looking for a team to join?
  - Who is looking for team members?
  - Is there anyone here from outside the Los Altos area?





# FIRST LEGO® LEAGUE

Presented by  
Los Altos Robotics

- **Introduction To FIRST and FLL**
- Los Altos Robotics Organization
- How To Participate
- Student Perspective / Project Demo
- Question & Answer
- Lab tour

Post-meeting: Q&A for potential coaches,  
managers, and team organizers



## ***FIRST Vision***

"... to create a world where science and technology are celebrated...

...where young people dream of becoming science and technology heroes..."



***Dean Kamen***, Founder and Visionary  
***FIRST*** Foundation



## What is *FLL*?

### TEAMS OF 4-8 STUDENTS, AGES 9-14

- Build autonomous LEGO robots to solve challenges on a 4' x 8' field in a time-trial competition
- Complete a research project and present their ideas to a panel of judges
- Robot challenges and research projects are related to a current topic in technology or science



### HOW DOES IT WORK?

- ~12 weeks to design, construct, program, and test solutions
- Use LEGO MINDSTORMS™ NXT or EV3
- Compete with peers in high-energy tournaments with an emphasis on **good sportsmanship**.

## Challenge 2014

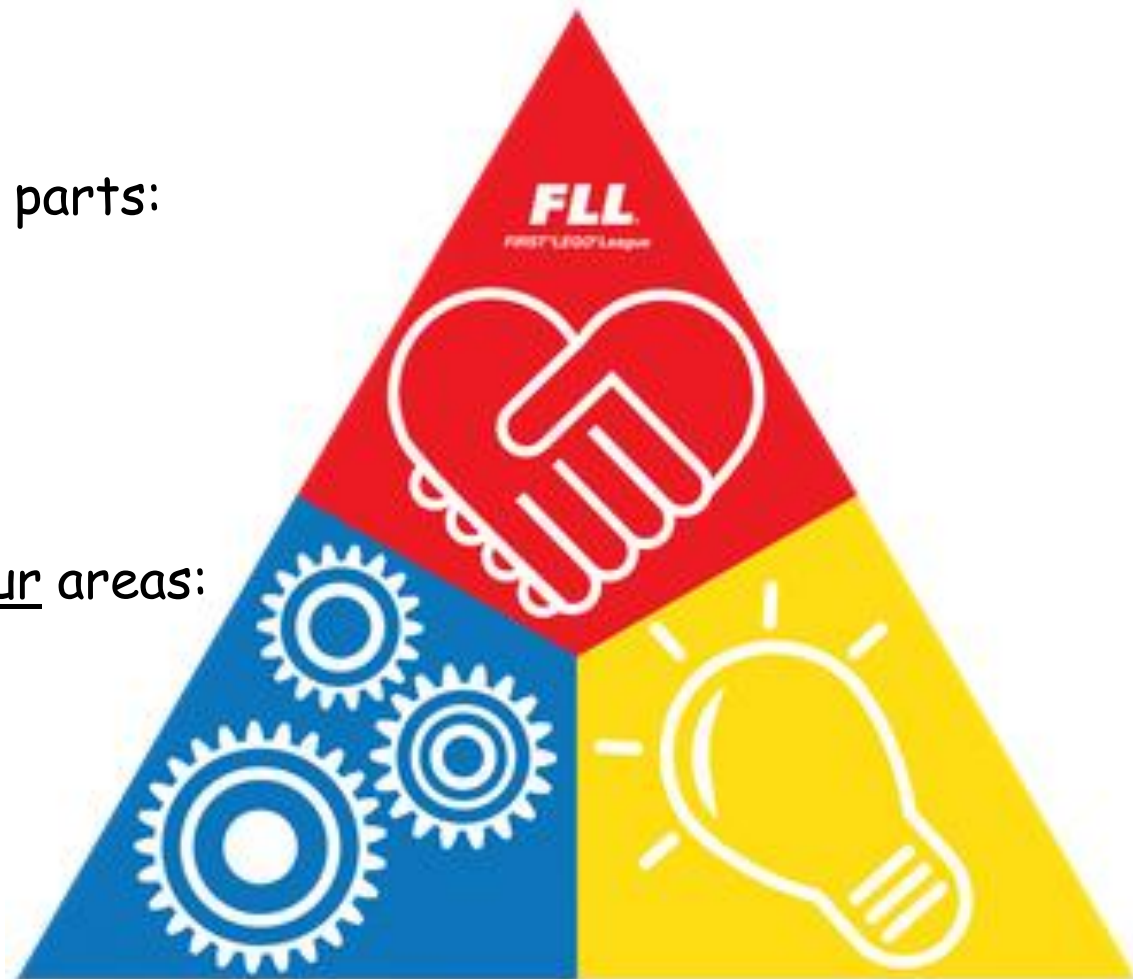


Explore the future of learning! FLL teams will redesign how we gather knowledge and skills in the 21st century. Teams will teach adults about the ways that kids need and want to learn.

- Autonomous robot solves a set of missions on an obstacle course.
- Research projects that solve a related real-world problem
- **KICK-OFF WAS August 26<sup>th</sup>** with a world-wide unveiling over the internet and locally at Intel Santa Clara

## FLL Challenge

- Each year's challenge has three parts:
  - Robot Game
  - Project
  - Core Values
- Teams are judged equally on four areas:
  - Robot Game Performance
  - Robot Design
  - Project
  - Core Values



## Benefits of *FIRST* LEGO League

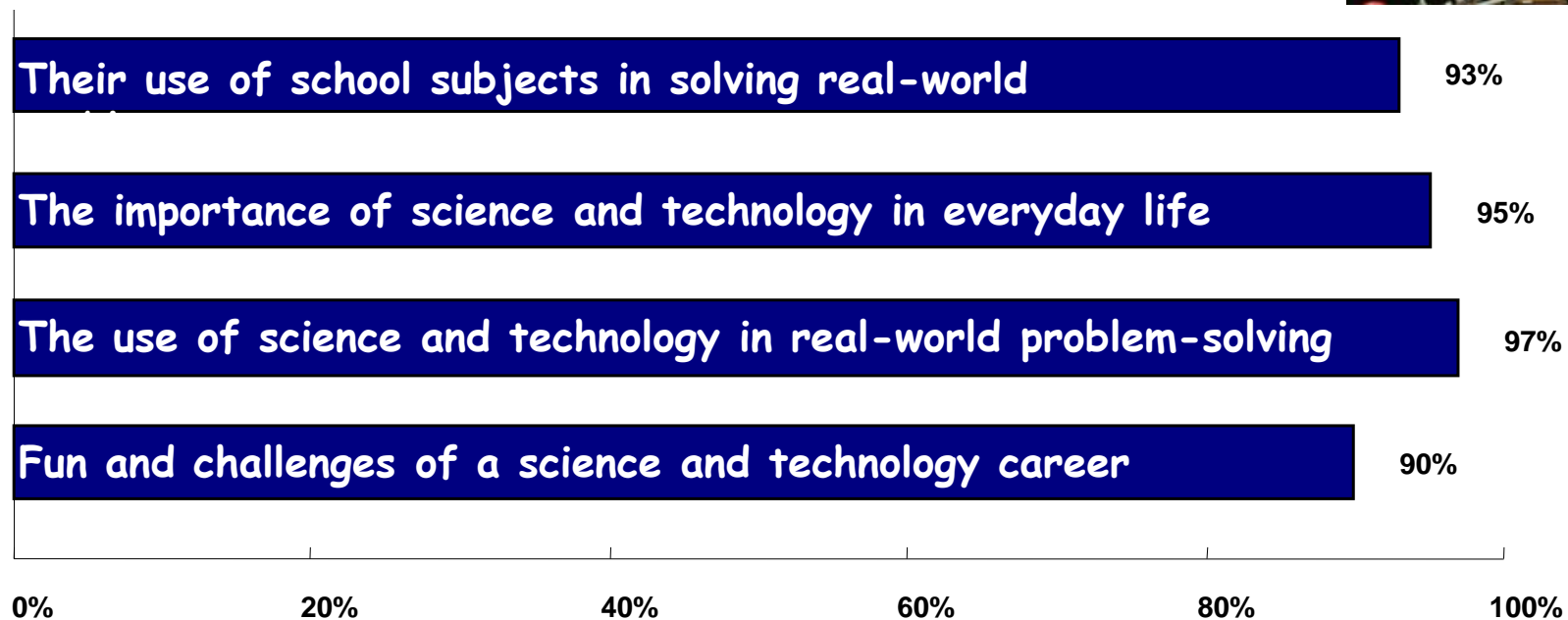
- Creates an environment where it is “cool” to get excited about science and technology
- Children have fun watching **their own** ideas in action, while building self-confidence, technical knowledge and life skills
- Creates a microcosm of working in a real-world design or engineering team





# FLL Impact

- In a 2004 evaluation of FLL, Brandeis University found that students  
Increased knowledge of:



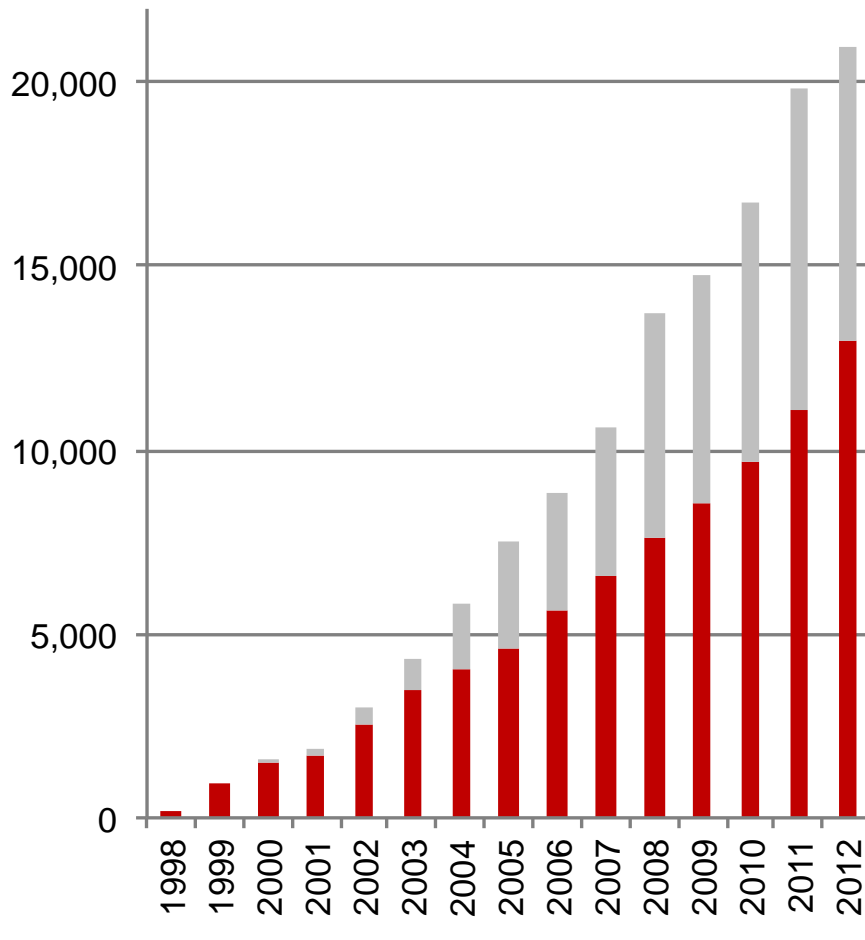
Source: FLL Program Study by Center for Youth and Communities, Brandeis University, May 2004





## 2014 Season

# Participation Growth



- ✓ 20,000+ teams worldwide
- ✓ 265,000+ students
- ✓ 500+ teams in NorCal\*
- ✓ Over 80 countries

\*Source: [firstlegoleague.com](http://firstlegoleague.com), [norcalfll.org](http://norcalfll.org)

■ Outside U.S. & Canada  
■ U.S. & Canada

Source: FLL Program Study by Center for Youth and Communities, Brandeis University, May 2004





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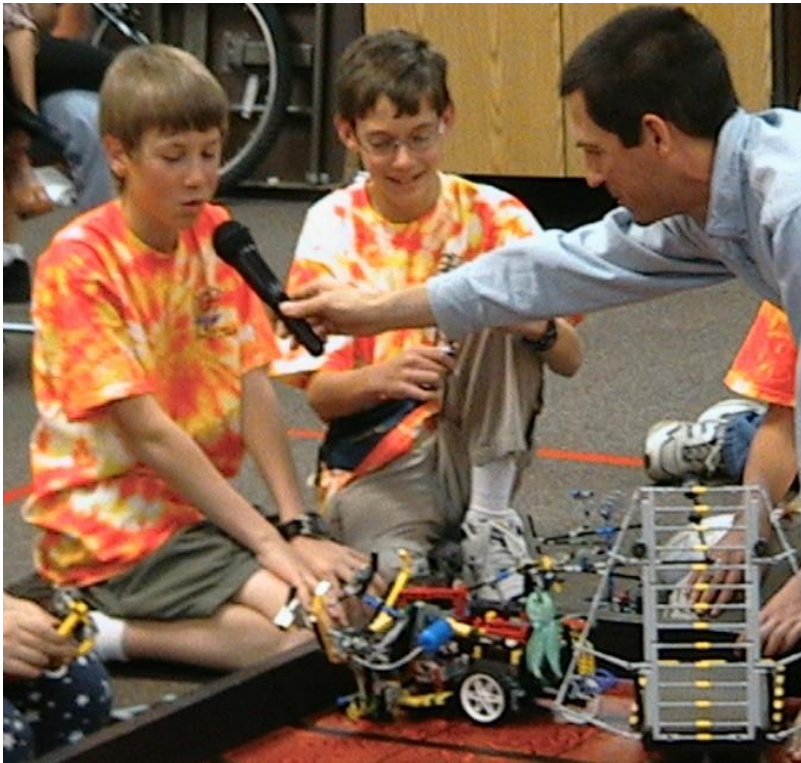
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## What is Los Altos Robotics?



- Implement **First LEGO League** in Los Altos area. High-scoring teams advanced to a Bay Area Championship tournament. In 2014...
  - 24 teams competed at Blach qualifying tournament
  - 28 teams practiced robot game at Scrimmage
- Promote and organize **Botball teams**, a robotics activity directed at grades 7-12
- Support **FIRST Robotics (FRC)** activities in Los Altos area high schools

## Los Altos Robotics - FLL 2014 Calendar

- Aug. 26 FLL 2014 challenge unveiled on [www.firstlegoleague.org](http://www.firstlegoleague.org)
- Sep. 2 Parent orientation
- Sep. 15 Teams organized (register & order field mat/pieces)  
[www.firstlegoleague.org](http://www.firstlegoleague.org)
- Sun, Oct. 19 Los Altos Scrimmage (Blach, noon - 5 pm) (optional, \$20/team)
- Sun, Nov. 9 Los Altos Project Share-a-thon (Oak, 1-5 pm)  
(optional, \$5/team)
- Sun, Nov. 16\* Los Altos Local Tournament (Blach, 9 am - 5 pm)
- Jan./Feb. Northern California Championship Tournaments

\*Other tournament dates @ other locations: Nov 15, Nov 22/23





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## Participation: How Are Teams Organized?

- Parents organize teams
- Teams may be formed from: friends, schools, churches, youth organizations
- Los Altos Robotics registers teams, not individual players

## WHAT PARENTS CAN DO TO ORGANIZE A TEAM

- Volunteer to be a coach or team manager
- Check with your child's friends to gauge interest level
- Teams generally work best with children at the same grade level
- Talk to teachers
- Contact Michael Schuh ([michael@boardsailor.com](mailto:michael@boardsailor.com)) re: *I need a team*
- Send email to TigerBots mailing list



## What Are The Team Requirements?

- Up to 10 children (4-6 recommended), 4<sup>th</sup> grade to 14 years old
- At least one adult coach (+ 2<sup>nd</sup> adult required for registration)
- For young teams (4<sup>th</sup> & 5<sup>th</sup> grade), at least one assistant coach
- Team meeting site that can accommodate 4' x 8' field

## ORGANIZING STEPS

- Get team members, coach, and manager
- Register team with National FLL ASAP - National FLL will send coaches' handbook (also online), mission models, field mat, and one FLL Robot kit (optional): [firstlegoleague.org](http://firstlegoleague.org)
- Two adults must screen with Youth Protection Clearance - NEW
- **Join TigerBots email list:** [TigerBots-subscribe@yahoogroups.com](mailto:TigerBots-subscribe@yahoogroups.com)
- Build or buy a 4' x 8' field - TigerBots or contact Derek Witte for help with building field tables (flyer on table)
- Acquire additional robot kits (optional)





## 5 Questions to Ask When Forming a Team

- Whose idea was this?  
Parent or child?
- What kind of experience do you want for your child?  
Great vacation or the job you love?
- How many other activities do the kids have? How important is FLL??  
If doing well is important to the kids, they will need to spend more time
- What Mindstorms or LEGO experience do the kids have?  
Follow directions vs. building own creations?
- Who will be our team volunteer?  
We need volunteers to help put on the tournament (e.g. venue setup, scorekeepers, and timekeepers) **Each team must provide a volunteer!**



## Frequently Asked Questions

- What are typical meeting times?  
The coach sets meeting times with input from the team. Often there is a shorter meeting on a weekday and a longer meeting on the weekend.
- What is the time commitment for the children and parents?  
**Players:** 4-6 hours per week (about the level of a recreational soccer team).  
**Coaches:** Player meetings plus prep time.
- I don't know anything about robotics or programming. How can I help?  
Team manager, assistant coach, or tournament volunteer.
- My 4th grader is 9 years old and the age range says 9-14, can he participate?  
Some 4<sup>th</sup> graders are excited initially, but end out mostly playing with LEGOs.
  - Do they like math, chess, or puzzles; or want to build or program games?
  - Can they stay reasonably focused in a team setting



## How Much Does It Cost?

Item	Team Cost	Player Cost (Team of 6)
➤ FLL Team Registration	\$225	\$38
➤ Field Setup Kit (incl ship)	\$85	\$14
➤ EV3 Robotics Kit (new)*	\$500	\$85
OR		
➤ NXT Robotics Kit*	\$435	\$75
➤ LAR Tournament Fee	\$85	\$12
➤ LAR 4' x 8' board (approx)*	\$50	\$8
➤ Misc expenses (project)	\$30	\$5
➤ Total	\$910 to 975	\$151 to 162

\*non-recurring costs

Purchase Field Setup Kit through FLL TIMS (info mgt system) after screening

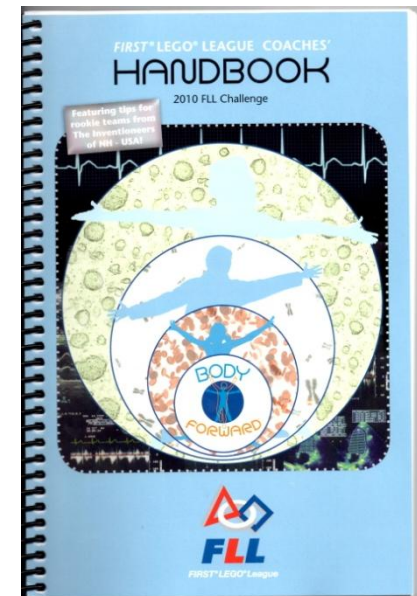
Purchase option: LEGO Education Website [legoeducation.us](http://legoeducation.us)

Order MindStorm Kits, extra pieces



## Resources for New Coaches

- **FLL Coaches' Handbook: All the information you need to get started**
  - Included with national FLL registration, has sections on:
    - Building a team
    - Equipment needed
    - Tournament rules and awards
    - Checklists and schedules
- **National FLL** ([www.firstlegoleague.org](http://www.firstlegoleague.org))
  - Official game and project rules
  - Q&A forums
  - Conference calls and online training (live and archived)



## Resources for New Coaches (cont.)

- Northern California FLL ([www.norcalfll.org](http://www.norcalfll.org))
  - Online community
  - Rookie Coaches Training
  - **Registration status**
  - Checklists and schedules
- Los Altos (TigerBots email list)
  - Mentoring from veteran coaches and team members
  - Ideal for "How do I get started building a robot?" or "We're stuck" problems.
  - **Helping new teams is part of the FLL ethic. Just ask!**
  - TigerBots emails used for timely communication, registered teams should monitor carefully

## Important Contact Information

- [www.firstlegoleague.org](http://www.firstlegoleague.org)  
National FIRST organization. national registration, challenge and robot kits, challenge rules and announcements, coaches' training
- [www.norcalfll.org](http://www.norcalfll.org)  
Northern California FIRST organization, registration for local and regional tournaments, Google group email list
- [www.losaltosrobotics.org](http://www.losaltosrobotics.org), [tigerBots-subscribe@yahoogroups.com](mailto:tigerBots-subscribe@yahoogroups.com)  
Los Altos scrimmage and tournament information, plus coaches support
- [Michael@boardsailor.com](mailto:Michael@boardsailor.com), 650-965-8037  
Michael Schuh, Los Altos robotics team formation and management help
- [lindaren@gmail.com](mailto:lindaren@gmail.com), 650-450-0546  
Linda Ren, Los Altos volunteer coordinator and registrar



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Los Altos Robotics Thanks

FRC Team 971  
Spartan Robotics

for providing our meeting venue tonight!







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