



Los Altos Robotics
FIRST LEGO® League
2013 Parent Orientation Meeting
August 27, 2013

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 *FIRST* LEGO League?

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 an exciting 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 2013



Explore the awe-inspiring storms, quakes, waves and more we call natural disasters in *FIRST LEGO League's* 2013 Nature's Fury Challenge!

- Autonomous robot solves a set of missions on an obstacle course.
- Research projects that solve a related real-world problem
- **KICK-OFF WAS August 27th** 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 on four areas:
 - Robot Game Performance
 - Robot Design
 - Project
 - Core Values



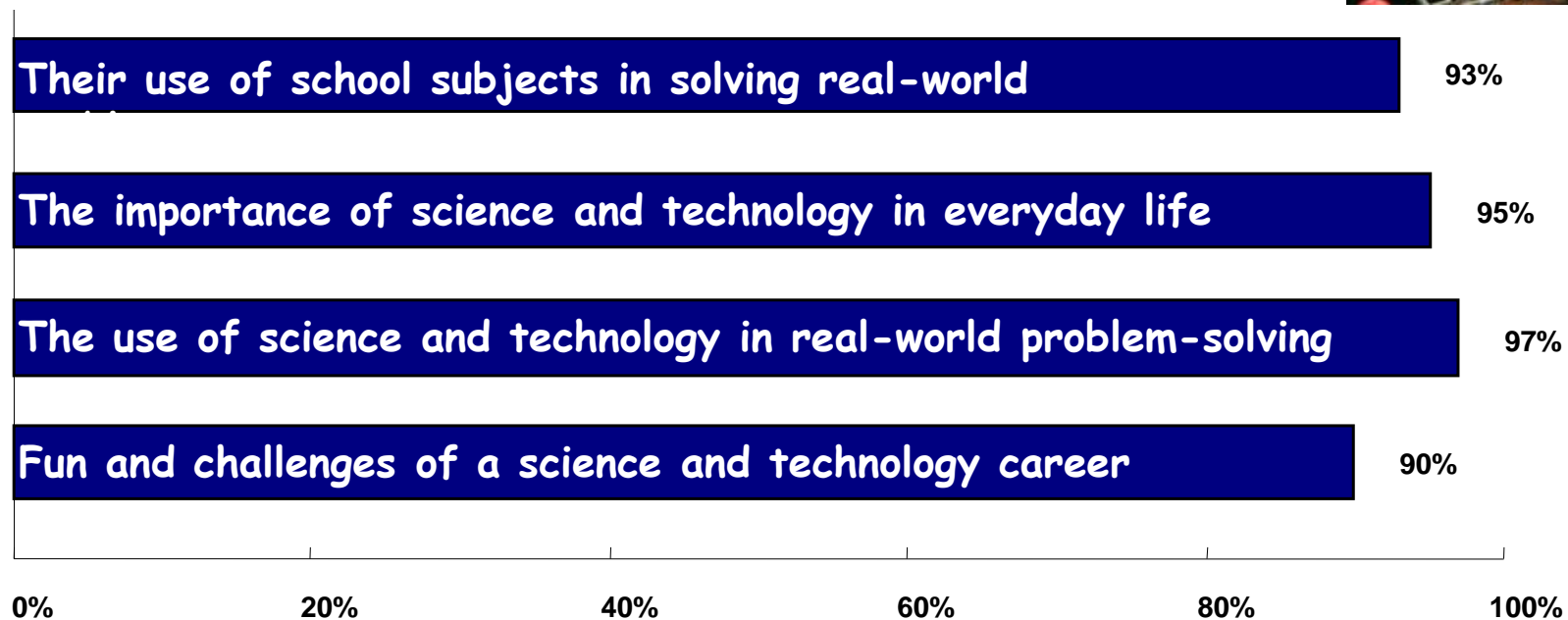
Benefits of *FIRST* LEGO League

- 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:



- Opportunity to participate in new study this year for new participants

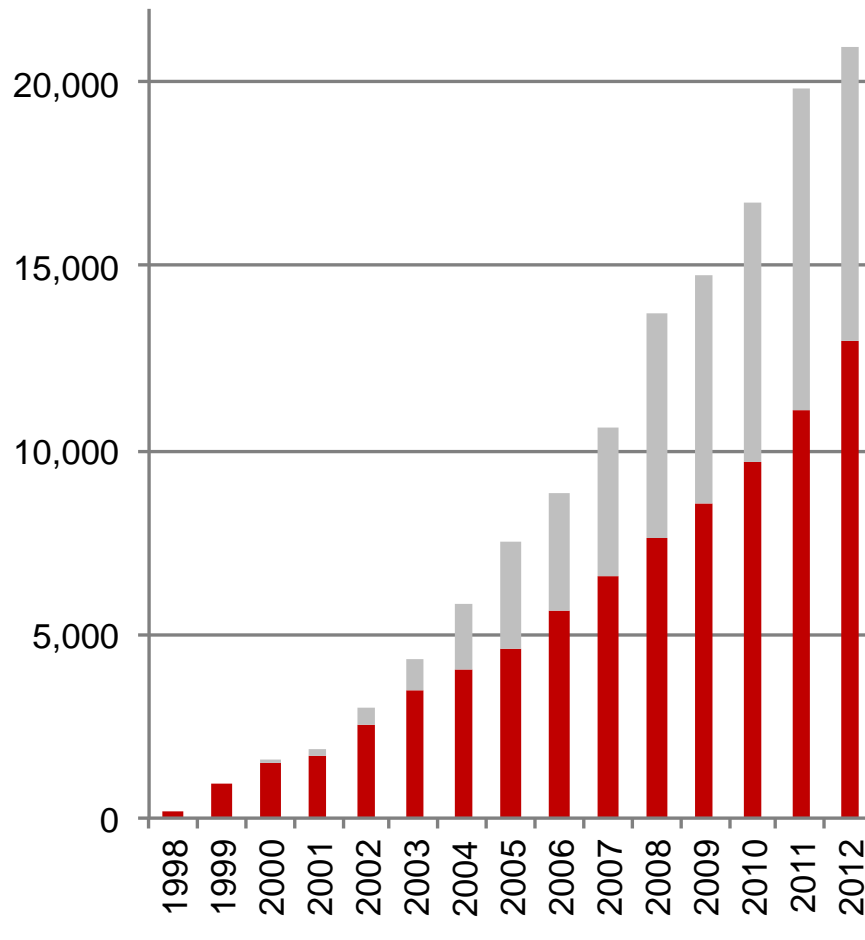
Source: FLL Program Study by Center for Youth and Communities, Brandeis University, May 2004





Participation Growth

2012 Season



- ✓ 20,000+ teams worldwide
- ✓ 470 teams in NorCal*
- ✓ Over 70 countries

*Source: 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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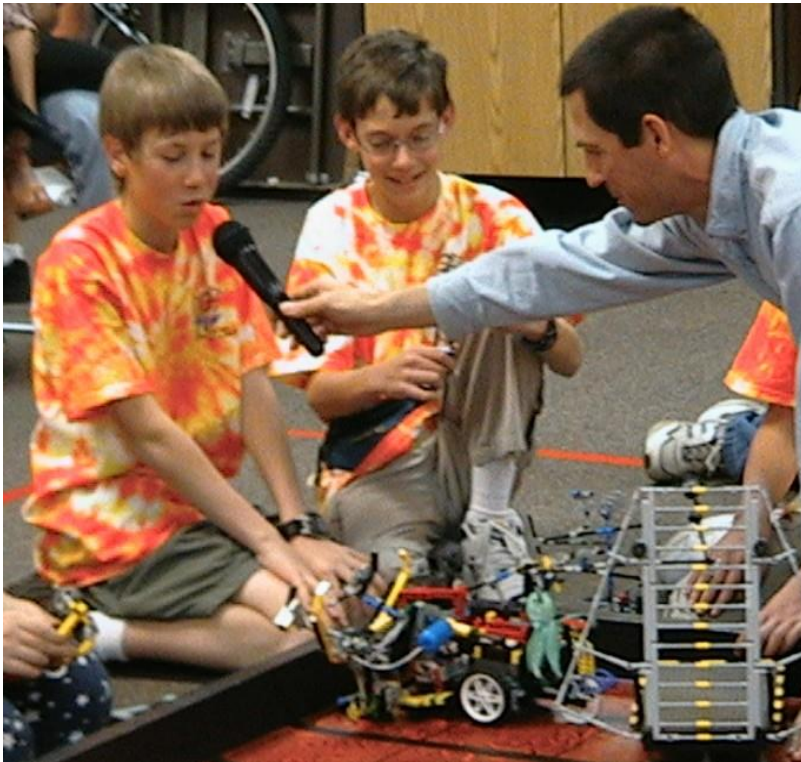
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What is Los Altos Robotics?



- Implement **First LEGO League** in Los Altos area. High-scoring teams advanced to the Northern California tournament. In 2012...
 - 19 Los Altos teams registered
 - 15 Mountain View teams registered
 - 24 teams competed at Blach qualifying tournament
 - 26 teams practiced robot game at Scrimmage
- Promote and organize **Botball teams**, a robotics activity directed at grades 7-12
- Support **FIRST Robotics** activities in Los Altos area high schools

Los Altos Robotics FIRST LEGO League 2013 Calendar

- Aug. 27 FLL 2013 challenge unveiled on www.firstlegoleague.org
- Aug. 27, Sep. 3 Parent orientations
- Sep. 15 Teams should be organized (kits and challenge ordered by now)
www.firstlegoleague.org
- Sun, Oct. 20 Los Altos Scrimmage (Blach, noon - 5 pm) (optional)
- Sun, Nov. 10 Los Altos Project Share-a-thon (Oak, 2 - 4:30 pm) (optional)
- Sun, Nov. 17 Los Altos Local Tournament (Blach, 9 am - 5 pm)
- Jan./Feb. Northern California Tournaments





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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) re: *I need a team*
- Send email to TigerBots mailing list



What Are The Team Requirements?

- Up to 10 children (4-6 recommended), 4th grade to 14 years old
- At least one adult coach (we recommend a team manager too)
- For young teams (4th, 5th 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
- **Join TigerBots email list:** 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)
- **Register for Los Altos Robotics Scrimmage (online) TBD, volunteers required and trained for tournament roles**



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 4th 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	\$75	\$13
➤ EV3 Robotics Kit (new)* OR	\$500	\$85
➤ NXT Robotics Kit*	\$435	\$75
➤ LAR Tournament Fee (est)	\$75	\$12
➤ LAR 4' x 8' board (approx)*	\$50	\$8
➤ Misc expenses (project)	\$30	\$5
➤ Total	\$890 to 955	\$151 to 161

***non-recurring costs**

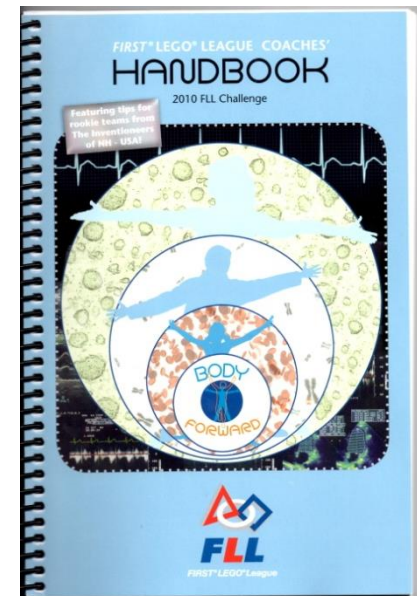
Purchase option: LEGO Education Website (legoeducation.us)

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)
 - 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)
 - Online community
 - Rookie Coaches Training:
 - Face-to-face Sep. 3rd 5:30-7:30, Play Space in San Jose
 - Webinar Sep. 24th
 - **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
National FIRST organization. national registration, challenge and robot kits, challenge rules and announcements, coaches' training
- www.norcalfll.org
Northern California FIRST organization, registration for local and regional tournaments
- www.losaltosrobotics.org, tigerBots-subscribe@yahoogroups.com
Los Altos scrimmage and tournament information
- Michael@boardsailor.com, 650-965-8037
Michael Schuh, Los Altos robotics team formation and management help
- 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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