



Los Altos Robotics
FIRST LEGO® League
2015 Parent Orientation Meeting
August 24, 2015

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

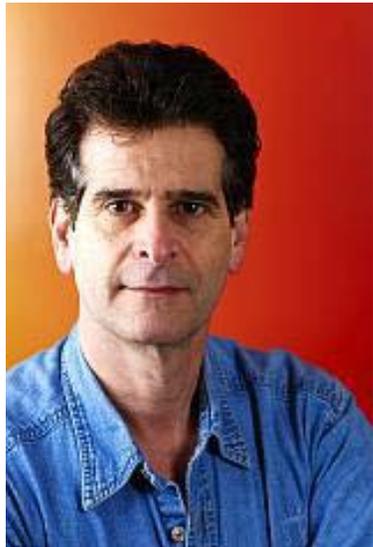
Post-meeting: Q&A for potential coaches,
managers, and team organizers



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 2015

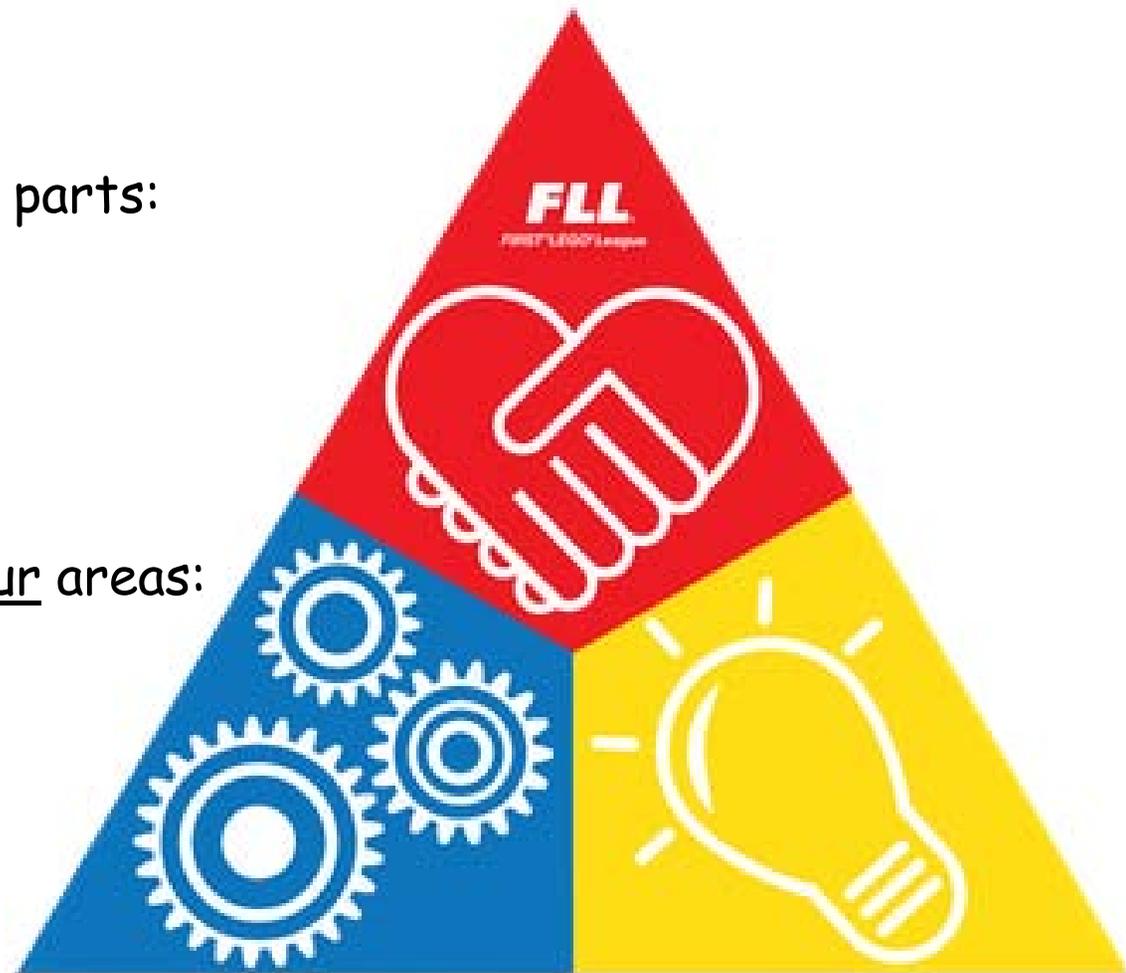
During the 2015 TRASH TREKSM season, teams will build, test, and program an autonomous robot using LEGO MINDSTORMS[®] technology to solve a set of missions in the Robot Game.

- Autonomous robot solves a set of missions on an obstacle course.
- Research projects that solve a related real-world problem
- **KICK-OFF will be announced August 25th**



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



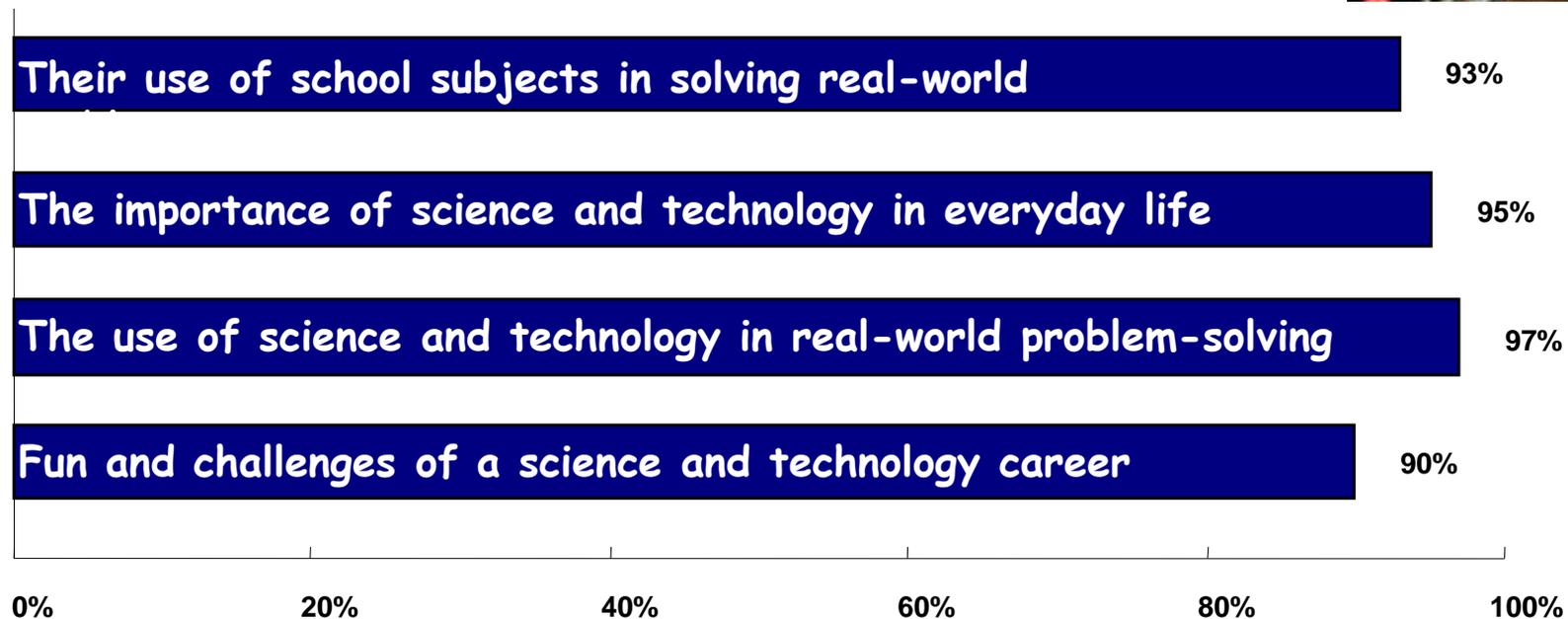
Benefits of *FIRST* LEGO League

- 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:



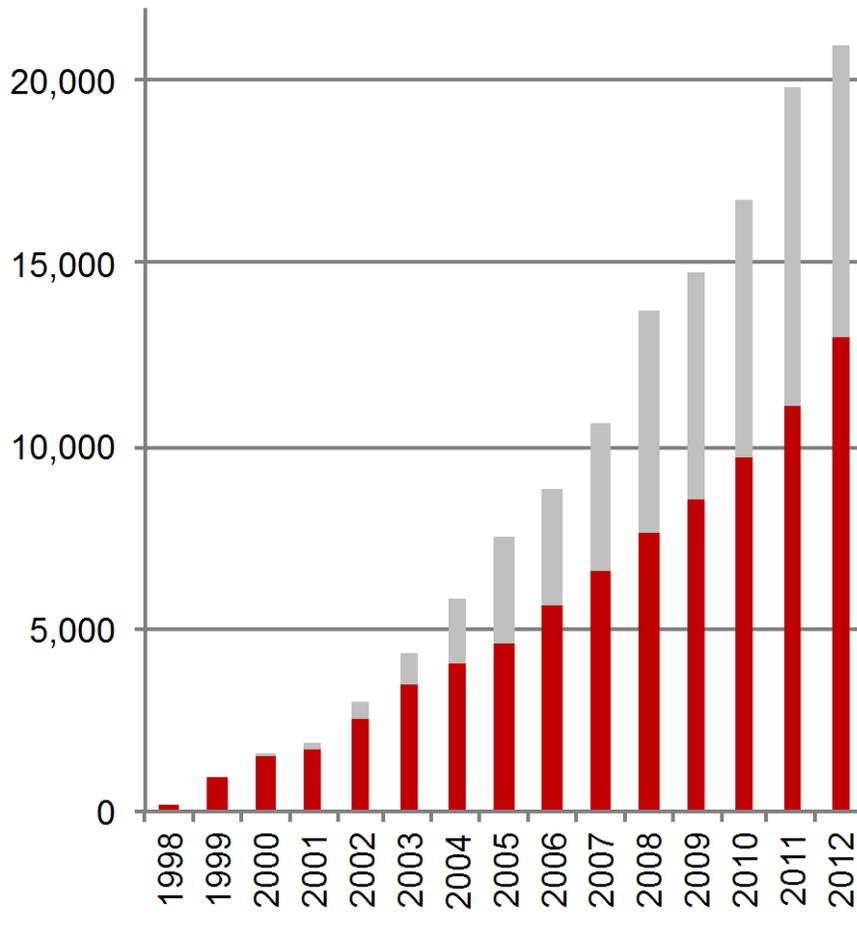
Source: FLL Program Study by Center for Youth and Communities, Brandeis University, May 2004





2014 Season

Participation Growth



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

*Source: firstlegoleague.com, norcalfll.org

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





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What is Los Altos Robotics?



- Implement **First LEGO League** in Bay Area in 1999. In 2014...
 - 24 teams competed at Blach qualifying tournament
 - 28 teams practiced robot game at Scrimmage
- Promoted and organize **Botball teams**, a robotics activity directed at grades 7-12
- Supported **FIRST Robotics (FRC)** activities in Los Altos area high schools

Changes at Los Altos Robotics



- A few weeks ago, Playing at Learning, the organization that coordinates NorCal FLL qualifying tournaments, informed us that Los Altos Robotics may not host a qualifying event this fall; no warning and no chance to remedy
- Comes after years of friction but still disappointing
- Instead LAR will host two non-qualifying scrimmages; on October 18 and November 15
- In 2016 we will support a different youth robotics program such as VEX IQ

Los Altos Robotics - FLL 2015 Calendar

- Aug 24 Parent orientation
- Aug. 25 FLL 2015 challenge unveiled on www.firstlegoleague.org
- Sep. 15 Teams organized (register & order field mat/pieces)
www.firstlegoleague.org
- Sun, Oct. 18 Los Altos Scrimmage (Blach, noon - 5 pm) (optional, \$20/team)
- Sun, Nov. 10 Los Altos Project Share-a-thon (Oak, 1-5 pm)
(optional, \$10/team)
- Sun, Nov. 15 Los Altos Scrimmage 2 (Blach, noon - 5 pm) (optional, \$20/team)
- Nov 14, 15, 21 & 22 Northern California Qualifying Tournaments: register through Playing at Learning
- Jan./Feb. Northern California Championship 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 scrimmage 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 (+ 2nd adult required for registration)
- 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
- Two adults must screen with Youth Protection Clearance - NEW
- **Join TigerBots email list:** TigerBots-subscribe@yahoogleague.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 scrimmages (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 up 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?

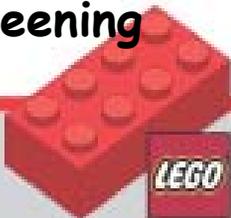
| Item | Team Cost | Player Cost (Team of 6) |
|-------------------------------|--------------------|-------------------------|
| ➤ FLL Team Registration | \$225 | \$38 |
| ➤ Field Setup Kit (incl ship) | \$85 | \$14 |
| ➤ EV3 Robotics Kit (new)* | \$500 | \$85 |
| OR | | |
| ➤ NXT Robotics Kit* | \$435 | \$75 |
| ➤ Scrimmage fee | \$20 | \$3.33 |
| ➤ Tournament Fee | \$185 | \$31 |
| ➤ LAR 4' x 8' board (approx)* | \$50 | \$8 |
| ➤ Misc expenses (project) | \$30 | \$5 |
| ➤ Total | \$1,095 to \$1,160 | |

*non-recurring costs

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

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
 - **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, Google group email list
- www.losaltosrobotics.org, tigerBots-subscribe@yahoogroups.com
Los Altos scrimmage information, plus coaches support
- 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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