



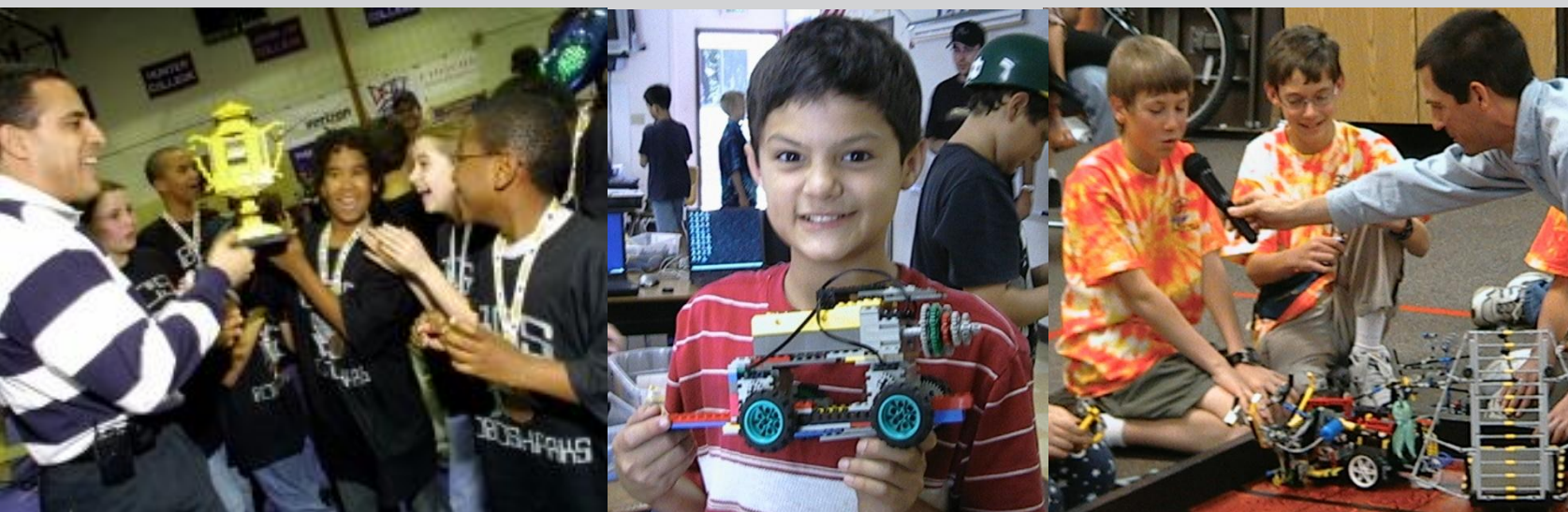
Los Altos Robotics
FIRST LEGO® League
2010 Parent Orientation Meeting
Sept. 7, 2010

Please sign in





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- But first a quick survey
 - How did you find out about tonight's meeting?
 - Who is thinking about joining FLL?
 - Who wants to join but needs more information?
 - Is there anyone here with prior FLL experience?
 - 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
- Question & Answer
- Demo

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* Foundation?

For **I**nspiration and **R**ecognition of **S**cience and **T**echnology



- Founded in 1989 by inventor Dean Kamen
- **FIRST Robotics Competition** for high-school-aged young people
- **FIRST LEGO League** for 9-14 year olds started in 1998
- **Other FIRST programs:** **FIRST Tech**, smaller scale robots for high school competitions, **FIRST Jr. FLL** for 6-8 year olds
- **Other programs:** **Botball** for jr/sr high school is run by KISS Institute for Practical Robotics

FIRST Robotics Competition for High School

- Combines the excitement of sport with science and technology
- Basketball-court sized field with autonomous and radio-controlled robots
- High-school-aged young people discover the value of education in science, technology and engineering



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

WHAT TYPE OF CHALLENGE?

- An exciting and current topic in technology or science

HOW DOES IT WORK?

- 11 weeks to design, construct, program, and test solutions
- Use LEGO MINDSTORMS™ NXT or Robotics Invention Systems
- Compete with peers in high-energy tournaments with an emphasis on good sportsmanship.



Challenge 2010



Embark on an exploration of biomedical engineering in *FIRST* LEGO League's 2010 Body Forward Challenge!

- Discover innovative ways to repair injuries, overcome genetic predispositions, and maximize the body's potential
- Missions simulate procedures in biomedical engineering
- Research projects investigate ways to repair, heal, or improve the function of a part of the human body
- **KICK-OFF WAS SEPTEMBER 3rd** with a world-wide unveiling over the internet

Benefits of FIRST LEGO League

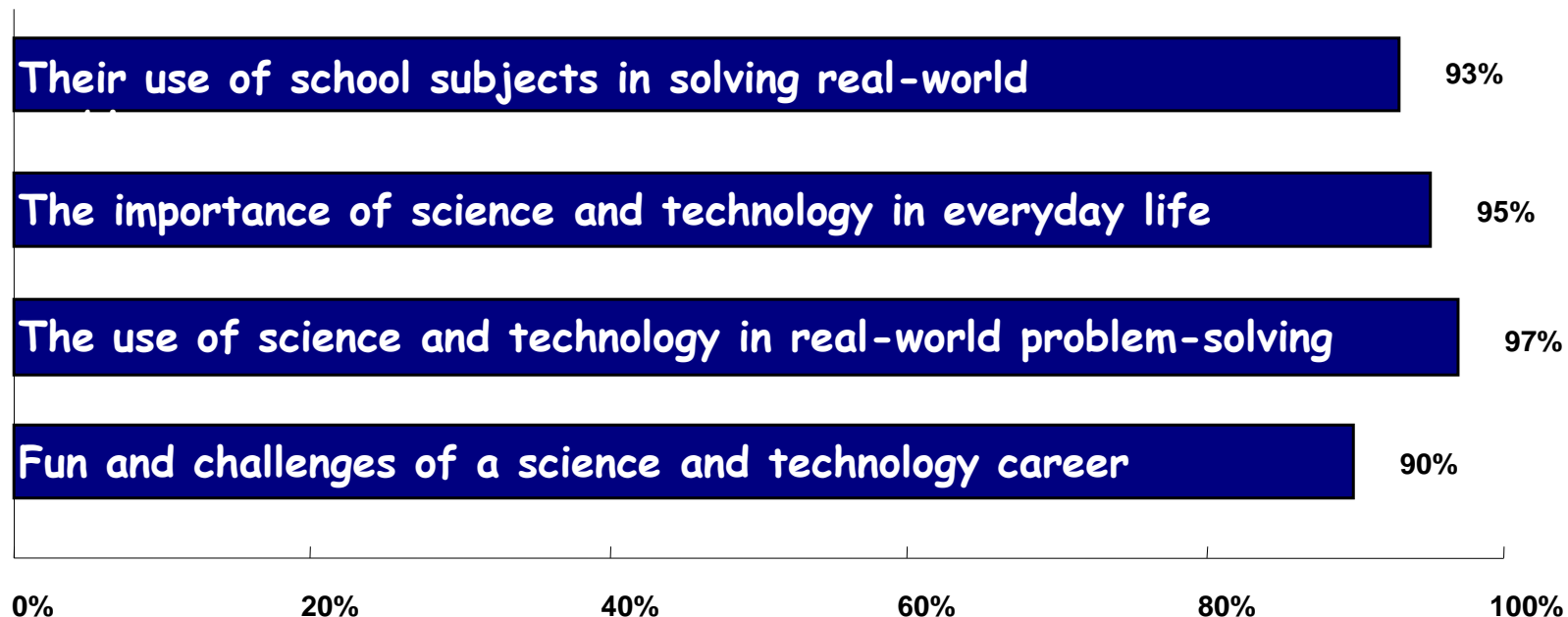
- Creates an environment where it is “cool” to get excited about science and technology
- Children have fun watching their own ideas in action, while building self-confidence, technical knowledge and life skills
- Creates a microcosm of working in a real-world design or engineering team



FLL Impact

In a 2004 evaluation of FLL, Brandeis University found that students

Increased knowledge of:

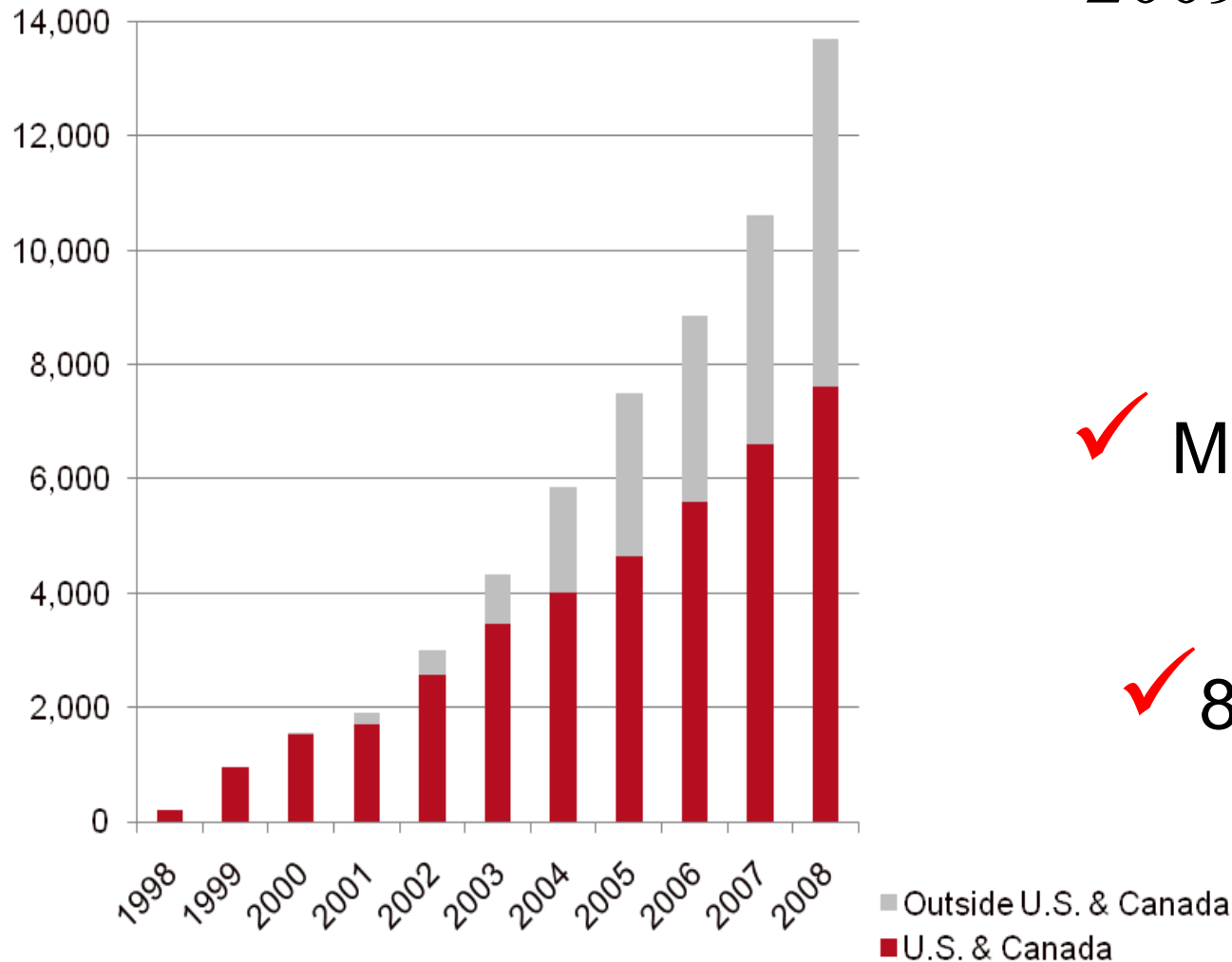


Source: FLL Program Study by Center for Youth and Communities, Brandeis University, May 2004





2009 Season Projections



✓ 14,600 teams

✓ More than 50 countries

✓ 89 tournaments, 454 qualifying events

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





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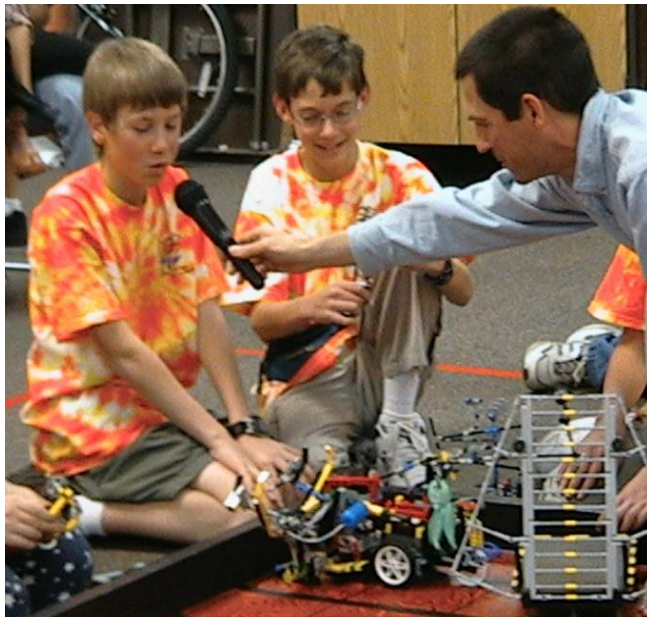
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Post-meeting: Q&A for potential coaches,
managers, and team organizers



What is Los Altos Robotics?

Los Altos Robotics is dedicated to providing the opportunity for our children to challenge themselves and experience the joy of building and programming robots



- Promote **First LEGO League** in Los Altos area. There were 24 teams last year with over 140 players. High-scoring teams advanced to the Northern California tournament.
- 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 2010 Calendar

- Sep. 3 **FLL 2010 challenge unveiled on www.firstlegoleague.org**
- Sep. 7 **Parent orientation**
- Sep. 15 **Teams should be organized (kits and challenge ordered by now)**
www.firstlegoleague.org
- Sat, Oct. 16 **Los Altos Pre-scrimmage Rules Q&A (Oak, 3 - 4:30 pm)**
- Sun, Oct. 17 **Los Altos Scrimmage (Blach, noon - 5 pm)**
- Sun, Nov. 7 **Los Altos Project Share-a-thon (Oak, 2 - 4:30 pm)**
- Sun, Nov. 14 **Los Altos Local Tournament (Blach, noon - 6 pm)**
- Dec. **South Bay Tournaments (San Jose, Sacramento)**
- Jan. **Northern California State Tournament (San Jose)**





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Participation: How Are Teams Organized?

- Parents Are The Only Ones Who Organize Teams.
- Teams may be formed from: friends, schools, churches, youth organizations
- LA Robotics registers teams, not 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
- Keep a copy of the Los Altos Robotics flyer with you and talk to teachers
- Contact Michael Schuh (michael@boardsailor.com) re: I need a team
- **TigerBots is a great place to ORGANIZE AN ALL-GIRLS TEAM**



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

ORGANIZING STEPS

- Get team members, coaches, and manager
- Register team with National FLL ASAP (National FLL will send coaches' manual, challenge set, field insert, and optionally, one FLL Robot kit)
- Acquire additional robot kits (optional)
- Build a 4' by 8' field or buy one from Los Altos Robotics
- **Join TigerBots email list: TigerBots-subscribe@yahoogroups.com**
- **Submit Los Altos Robotics Scrimmage/Tournament Request (online) by 9/28**



5 Questions to Ask When Forming a Team

- Whose idea was this?
Parent or child?
- What kind of experience are you looking for?
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



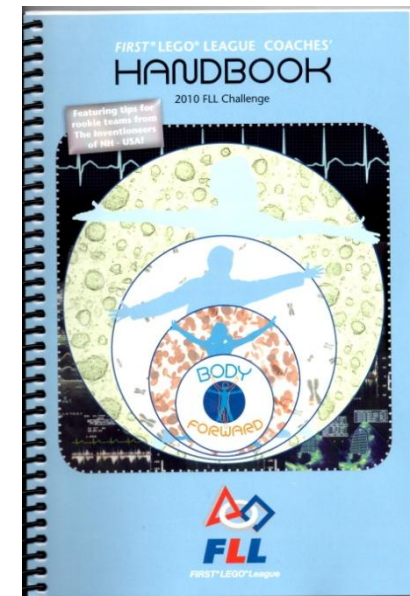
How Much Does It Cost?

➤ Item	Team Cost	Player Cost (Team of 6)
➤ FLL Team Registration	\$200	\$33
➤ Field Challenge Set	\$65	\$11
➤ Robotics Kit (buy) (1 or 2 kits per team)	\$400 / \$800	\$67 / \$ 134
➤ LAR Tournament Fee	\$50	\$8
➤ LAR 4' x 8' board	\$40	\$7
➤ Misc expenses (project)	\$30	\$5
➤ Total	\$786 / \$1186	\$131 / \$198



Resources for New Coaches

- **FLL Coaches' Handbook: All the information you need to get started**
 - Free 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 rules
 - Q&A forums
 - Conference calls with senior coaches



Resources for New Coaches (cont.)

- Northern California FLL (www.norcalfll.org)
 - Online coaches' training
 - NXT-G Software: 9/9 and 9/28
 - Rookie Coaching: 9/12 and 10/1
 - Live coaches' training TBD
 - Online community
 - **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!





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
- Mike.Murray@stanfordalumni.org, 650-969-0919
Mike Murray, registrar and volunteer coordinator





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