



FIRST LEGO[®] League

Local Event Guide

FLL EVENT GUIDE

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1 INTRODUCTION

FIRST LEGO® League (FLL) Tournaments provide participants the opportunity to see that they are part of something larger than their own teams. Ultimately, it is our hope that FLL team members see Tournaments as a celebration of their accomplishments and an opportunity to come together to solve common problems.

1.1 Welcome and Thank You

On behalf of all FIRST LEGO® League teams and staff thank you for volunteering as an Event Coordinator. FLL is truly fortunate that so many individuals and organizations share our goal of inspiring the next generation to celebrate science and technology. As an FLL event coordinator, we commend you for assuming an active role in the development of today's youth into tomorrow's workforce.

1.2 FIRST LEGO® League History

FIRST (For Inspiration and Recognition of Science and Technology) is a 501(c)(3) non-profit organization founded in 1989. Since its inception, FIRST has been establishing partnerships between private industry, universities, and high schools for the FIRST Robotics Competition, an international engineering challenge for high school students. Aspiring to have the same positive influence on more children at an even younger age, FIRST LEGO® League was formed in 1998 as the result of a partnership between FIRST and The LEGO® Company.

“We’ve got to show children that it’s more fun to design a video game than to play one. Society will get what it celebrates--if we want to continually improve our quality of life, we need to show children that scientists and engineers are the ones who make that happen.”

FIRST Founder, Dean Kamen

1.3 FIRST LEGO® League Growth

Year	Challenge	Students	U.S. & Canadian Teams	Participant Locations
1998	FLL Pilot	2000	200	9 U.S. states and Denmark
1999	FIRST Contact	9,600	960	35 U.S. states, Singapore, Denmark, China
2000	Volcanic Panic	15,000	1520	42 U.S. states, Singapore, UK, Norway
2001	Arctic Impact	17,000	1702	45 U.S. states, Europe, Asia
2002	City Sights	25,000	2573	U.S., Denmark, UK, France, Germany
2003	Mission Mars	33,000	3358	Canada, Denmark, France, Germany, Norway, Singapore, Sweden, the UK, and the U.S. (42).
2004	No Limits	38,000	3870	Austria, Brazil, Canada, China, France, Germany, Holland, Israel, Japan, South Korea, Scandinavia, Singapore, South Africa, Turkey, the UK and the U.S.

Continued

Year	Program	Students	U.S. Teams	Participant Locations
2005	Ocean Odyssey	46,000	4651	Austria, Benlux (Belgium, the Netherlands, and Luxembourg), Brazil, Canada, China, Denmark, Egypt, France, Germany, Hungary, Iceland, India, Israel, Japan, Jordan, Lithuania, Mexico, Nigeria, Norway, South Korea, Singapore, South Africa, Sweden, Switzerland, Taiwan, Turkey, the UK and the U.S.
2006	Nano Quest	56,000	5601	Australia, Austria, Benlux (Belgium, the Netherlands, and Luxembourg), Brazil, Canada, China, Czech Republic, Denmark, Egypt, Faeroe Island, France, Germany, Greenland, Hungary, Iceland, India, Israel, Japan, Jordan, Lithuania, Mexico, Norway, Peru, Portugal, South Korea, Singapore, South Africa, South Arabia, Spain, Sweden, Switzerland, Taiwan, Turkey, the UK and the U.S.

FLL - *Sports for the Mind*

<i>FIRST</i> <i>the Program</i>	+	LEGO <i>the Product</i>	=	FLL <i>the Challenge</i>
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1.4 Program Format, Objectives, and Results

FIRST LEGO® League provides an inspirational learning experience that celebrates science and technology for 9 to 14 year-old children, 9-16 outside of North America. FLL believes that the natural curiosity and creativity inherent in children are qualities critical to understanding complex problems, envisioning possibilities, and developing innovative solutions. Bringing theory and practice together in a revolutionary program, FLL empowers participants to use what they learn in the classroom, combined with the latest technology, to solve the Challenge--a current scientific or technological need facing the world.

Working in an environment that encourages inquiry and hands-on experimentation, team members fulfill project responsibilities modeled after actual professions. The roles they assume grant them the thrill of discovery as they witness firsthand how abstract concepts become concrete solutions. Team members also learn life skills such as respect for others, appreciation of different perspectives, cooperation, perseverance, and time management. As a result of the FLL experience, participants gain confidence, discover new skills and interests, and shape their futures--as they, in turn, shape ours.

1.5 The Challenge Process

Each year, the FLL season commences with the announcement of a new Challenge. *FIRST* develops the Challenge, which engages teams in the same problem-solving process practiced by

industry: research, brainstorm, design, build, and test. Teams use the LEGO® MINDSTORMS™ Robotics Invention System™, consisting of LEGO bricks, sensors, motors, and gears to construct and program a fully autonomous robot capable of completing the various missions of the Challenge. At the end of the eight-week design and build period, the teams compete in tournaments against other teams who faced the identical time and materials limitations.

Event coordinators are the key to producing awesome FLL events! Local events are an exciting half or full-day event filled with cheering teams and spectators with plenty of opportunities for the students to test themselves and learn from each other. Each team's robot runs autonomously around a the challenge course, scoring points by completing the individual missions. In addition, Judges usually evaluate the team's project for completion of all three steps: including research quality, innovative solution and sharing with others. At some local events Judges may assess teams for teamwork or the robots on mechanical and programming features.

2 LOCAL EVENTS OVERVIEW

At the end of the official FLL season, and sometimes part way through, teams have the opportunity to come together to celebrate their accomplishments. At these events teams are recognized for the involvement in their technical journey as well as the individual team member's commitment and dedication to this eight-week process.

The number of Qualifying and Championship Tournaments grows each season, but we still do not meet our objective of providing every team with a tournament experience. To accomplish this, we are fortunate to have volunteers who create Local Events. These Events provide teams an informal option for competing with their robots. These informal competitions are independent and simpler to organize and run than the Qualifying and Championship Tournaments. A local team(s) can put on a Local Event quite easily and cheaply since they are usually small and informal with approximately 3 to 10 teams attending. Awards are optional.

While not meant to replace a Qualifying and Championship or Tournament, these Local Events offer teams a chance to showcase their accomplishments and learn from each other. A number of key elements will ensure that your Local event is successful and provides teams with a rewarding experience:

- ❑ An event coordinator to run the event handling everything from the invitation/registration process, communicating their activities with the local FLL Partner, etc.; or
- ❑ Recruiting a group of volunteers to support the event coordinator
- ❑ An event site
- ❑ The necessary funds to cover expenses

This guide provides an overview of how to get started and has tips, tricks, and ideas to make the day fun. It also has cost effective tools to help guide your planning process.

4 EVENT COORDINATOR AND TEAM COMMUNICATION

Local events are not part of the FLL Partner's Tournament system, so you need to ensure that teams have an easy way to contact you regarding questions and problems. As the local event coordinator, if you are interested in obtaining coach contact information for garnering interest in the event, there are team forum pages listed out by state, which allow you to announce your plans and the number of teams that can attend, determine a registration process, and find other pertinent information. In some cases the FLL Partner will distribute your information to teams in your area. Please note that due to FIRST's Privacy Policy FLL Partners cannot distribute this team contact information directly to you.

5 PLANNING COMMITTEE STRUCTURE

The work of hosting an FLL Local Event takes time and resources. One critical resource is people. Try to find at least two other people to help you. Any help you get will make your job easier! Ask parents from your teams, other coaches who will be attending the Tournament, business people who are helping support the event, and team members. Another resource may be a local *FIRST* Robotics and *FIRST* Tech Challenge team members. They are experienced in the *FIRST* concept, can be a great resource and may even be FLL alumni.

While there are several key planning roles, one person can fill more than one role.

5.1 Event Coordinator

This role is not for the faint of heart! This individual is responsible for overseeing all aspects of the event and is the principal liaison for most aspects of the event. He or she is the coordinator for all of the other volunteers. He or she manages the event load in-load out and coordinates all the scheduling in conjunction with the teams, materials coordinator, and the opening and closing ceremonies.

5.2 Judge Advisor

This person finds the judges for the event and makes sure they are trained, fed, and supported.

5.3 Technical Director

This person understands the technical requirements for the event and is able to determine if the site can accommodate the tournament needs. He or she must get the necessary items and be able to fix any glitches that happen prior to and during the event.

5.4 Volunteer Coordinator

This person will find and train volunteers prior to the event and support them the day of the event.

5.5 Fundraising Coordinator Advisor

This person determines the cost of the event and establishes methods to secure and manage funds.

5.6 Teams and Materials Coordinator

This person will plan the tournament day, schedule teams, and make sure all the materials are available. He or she will make sure to copy and distribute paperwork, order and prepare awards, and define the Pit, registration, and opening and closing ceremonies areas. This volunteer will also define the competition, queuing, and judging areas and provide volunteers with appropriate schedules so everyone knows who is where and when.

Available Materials

The following are available in this Guide or from FLL once you list your event on the FLL website.

- Refer to Table of Contents			
Sample Press Release	Refer to the "Getting the Word Out"		
Load-In Checklist	Refer to "Tournament Day"		
Registration Checklist	Refer to "Event Registration"		
FII Program Coordinators: (For FLL Support for Canada, Mexico, or the U.S.)			
	Lee Doucette:	ldoucette@usfirst.org	Ext.477
	Karen Burnett-Kurie:	kburnett-kurie@usfirst.org	Ext. 467
	Jodi Kravitz:	jkraivitz@usfirst.org	Ext. 446
Contact one of the above coordinators for the following items.			
Referee Guide			
Judges' Guide			
FLL Scoring Program			

- Website Locations -	
FIRST Logo	http://www.usfirst.org/roboticsprograms/resourcecenter.aspx?id=816
Challenge artwork	http://www.usfirst.org/roboticsprograms/resourcecenter.aspx?id=816
Lighting, table, & tech specs	Available via the Challenge pages post 9/3
Participant Consent Forms	Available off of http://www.usfirst.org/roboticsprograms/fll/default.aspx?id=970
Awards & criteria	http://www.usfirst.org/roboticsprograms/fll/content.aspx?id=770

- Awards Recognition, Local Vendor -	
Trophies, ribbons, pins, medals	Crown Trophy, Hooksett, NH, local contact: Bill Sullivan, 603 645 1022, crownmannh@aol.com

KEY TO SUCCESS - VOLUNTEERS!

7. VOLUNTEER STAFFING

Volunteers are the Heart Of The Event – 20 to 30 Volunteers and Their Roles

Volunteers make the FLL Tournament. They give hours of their time, smoothly fill in any holes that open up during the day, and get to have a blast with the teams. They are the runners, the information center, the scorekeepers, and the emcee. They play the music, help set up and clean up, take lost children to their parents, and politely tell the children to stop kicking a wall. The good, the bad, and the ugly! Definitely heroes of the day!

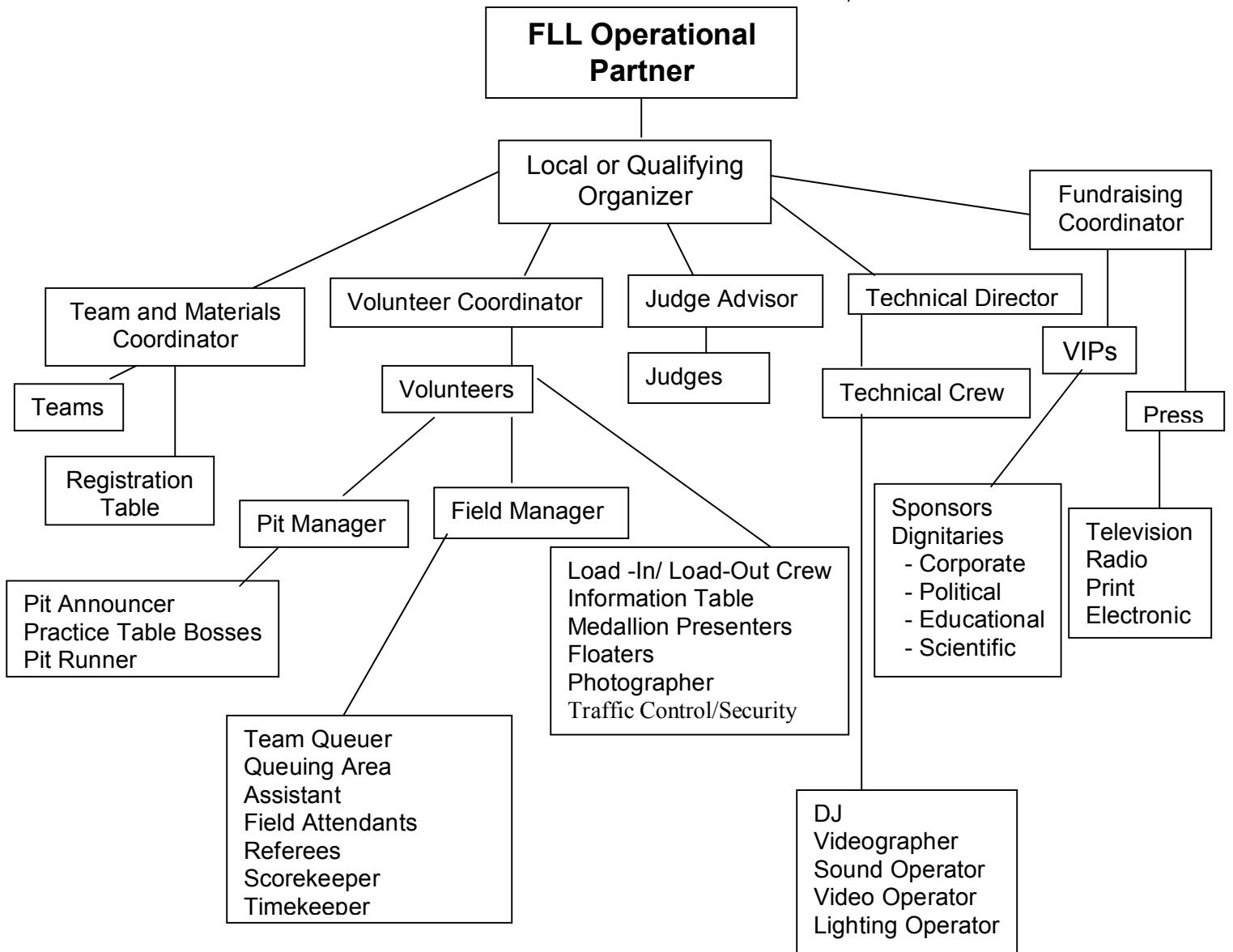
Volunteers are around – just look and talk with people. They usually know others who are willing and capable. You may want to make it part of each team’s responsibility to supply 1 to 2 volunteers for the day. With 10 teams, this makes quick work of finding volunteers.

7.1 Volunteer Roles

There are three types of volunteer roles: referees, general volunteers, and judges. Each volunteer position is important and each is critical; for without one, the other two fail. All volunteers work with the children, have a blast, and will be tired at the end of the day! These volunteers come from all places, ranging from teams’ family members, teachers and staff members of the school, to business supporters. They can be part of a school club, a community organization, or social group.

The best way to have a successful tournament is if all of your volunteers know their roles and no one person is expected to know everything. A sample tournament-staffing flowchart on the next page demonstrates which volunteers can oversee others at your event. Each key volunteer is responsible for his or her own group’s needs and can communicate with the tournament organizer as needed.

7.1.1 FLL Tournament Staffing Flow Chart



7.1.2 Referees - How Are You Going To Call It?

Referees are the ultimate decision makers when it comes to the competition rounds. They also keep the competition going by moving teams through the rounds with ease, smiles, and an understanding that this is tough on the children! Consistency is critical. All eyes are on the referees, and while the teams may not make a stink, adults sometimes do! So expect a few rounds from a parent or two.

Referee Guide

Contact your local partner

Recruiting Referees

The Head Referee will receive training from FLL on the game, missions, and rules. He or she recruits referee volunteers and trains the table referees and prepares them for the competition day. The following are good referee candidates:

1. People who already have sports refereeing experience are a great start because they understand the need for consistency and making clear, concise calls. They also may have the duds to make the role realistic!
2. The FRC robotics team in your area is another great resource for referees. The team members already know what to look for, since they know what they face during their competition rounds, and they also understand the importance of the challenge and rules.
3. School gym teachers or school coaches may be able to help or provide suggestions.
4. Is there a group that conducts sports referee training? See if they would help, or have their students help as part of the course.

Training

- The event coordinator should review the scoring with the referees to ensure they understand the process.
- Additionally, the Technical Judges should receive training, to help them judge the “do’s and don’ts” during the Judging, and insight into how it might affect a team’s strategy.

7.1.3 Field Manager – 1 volunteer

Stepping out onto the competition floor, the field manager is the key to making all areas work together. It is critical to the competition to be able to keep teams flowing to each area throughout the day. The field manager keeps in contact with the Pit, queuers, and the judging areas. Fill this job with a multifaceted individual who can move and motivate while keeping eyes on scheduling, audio and visual, scoring, and working with the Emcee.

7.1.4 Registration and Information – 1 to 2 volunteers

As teams come in, coaches go to the registration table and sign in their team(s) and hand in, pick up, and fill out any paperwork. Besides registering teams, recording payments, and providing receipts, these volunteers provide teams with event information and schedules, give directions, advice, and answer questions as they arise. After registration, they can assume other roles for you.

7.1.5 Pit Crew – 3 to 5 volunteers

The volunteers in the Pit manage the flow of information from the other areas and make sure to relay all changes/information to the teams.

- **The Pit Announcer** is the message voice.

- **Pit Runners** –2 or 3. These volunteers bring teams from the Pit to the queue area prior to the competition round.
- **Head Queuer and Runners** – 2 to 3 volunteers. The Head Queuer helps teams line up, or queue, prior to entering the competition area. Team queuing is the key to keepING the event on track. Making sure that the runners in the Pit bring the teams to the queue every 2 minutes, helps keep teams in order and ready to compete. Teams are then lead up to the competition field to set up their robot and wait for the start of their round.
- **Other volunteers** man the practice field to help manage the flow of teams.

7.1.6 Emcee – 1 or 2 volunteers

The excitement of any event is in the hands of the Emcee, the voice the teams and spectators hear throughout the competition and the person who builds excitement during the day. The emcee should love the job because he or she is the face the crowd sees and with whom it interacts. Choose a fun-loving, lighthearted, “quick with the jokes” kind of person for this role. This volunteer must understand the Challenge and its rules as well as the mission of FLL. This person helps the audience visualize the action and excitement through his calls during the rounds.

To help the emcee expand and personalize his announcing capabilities, provide him/her with team information sheets providing, the team names and hometown, what inspires them, their funniest story. Emcees usually take a few minutes to talk with the teams. Children love to talk into microphones and shine with their accomplishments. Asking them questions, even a simple one like where they are from, breaks the ice and offers a more intimate look at the children. If your emcee isn’t local, he or she can add some comic relief to the event, as he or she tries to guess how far away a team has come.

7.1.7 Scorekeeper, Scoring Program, and Scores - 1 or 2 volunteers

The referees bring the scores to the Scorekeeper who records them in a computerized score spreadsheet and then posts them to the screen for the audience. This keeps the excitement building and informs the teams in the Pit, motivating them to improvise and take additional risks to be more competitive. The scores also provide judges with information for choosing the technical award winners.

7.1.8 Timekeeper – 1 volunteer.

This volunteer is indispensable and critical to event success! Rounds go quickly, and making sure teams know when to start and end is critical. To help keep everyone on track, consider using loud horns to signal the start and end of each round. Teams have to know how much time is left in a round so they can determine which programs to use during that round. A stopwatch, timing clock, or some type of timing device is necessary.

Ensure proper round length. Check the FLL Challenge rules for the exact time of a round since round length varies from 2 to 21/2 minutes each year.

7.1.9 Tournament Photographer - optional – 1 volunteer.

Obviously, this volunteer should have the basic skills of photography composition and be able to spend the day finding intimate team moments, the excitement of winning and losing during the competition, and the interaction between coach and team members. Capturing these moments is easier if a person is dedicated to preserving them one at a time using a digital or regular camera. Recommend that he or she include spectators in the shots because they often lend a special touch while rooting for or comforting a tired, sad child. The photographer also has the honor of taking pictures of dignitaries, winning teams, volunteers, judges, and referees. Poignant moments of the day are in his / her hands.

7.1.10 Traffic Control – 2 to 3 volunteers.

This volunteer is also critical to a safe, well-run event. He or she must keep areas open so teams move effortlessly from the Pit to the queue, the competition floor, and judging areas. Besides being a major role player in keeping the day on track, this person adheres to fire code requirements and keeps aisles clear and crowds behind the lines.

7.1.11 Playing Field Support – 2 to 3 per competition table

Field support volunteers are the referees' "right hand men" and they enhance event efficiency by:

- Helping reset tables after each round.
- Recording the points on large white boards posted in the competition area.
- Bringing the referee's score sheet to the scorekeeper.
- Leading the teams to the tables.

7.1.12 Floaters - 4 volunteers.

A floater's responsibility is invaluable and open-ended. While trying to plan for everything, there are always a few roles left open. These folks have the advantage of experiencing a number of different roles during the day. Use them to fill in for volunteers who cannot stay the entire day or for those who need breaks. Floaters can be useful as messengers, problem solvers, and guides. They may also enjoy handing out medals and trophies.

7.1.13 Load-In/Load-Out – 5 to 7 volunteers.

Consider using the teams for this process and assign a cleanup role to each team ahead of time. This will distribute the work. If you can, recruit a group of volunteers to help set up the day before and clean up the day of the competition. A clean site after an event may keep the site open for subsequent years.

7.2 Judging Roles and Responsibilities – 10 + Use 2 judges for each judged award.

The key to making the tournament fun is getting great judges who love children, noise, excitement and enjoy spending a crazy, mixed-up day with the teams. They also have to like to SMILE! We suggest that you ask business supporters, teachers, principals, or experts in the areas of programming, engineering, and the current FLL research project topic. To make your event even better, consider asking people you would like to get more involved with FLL in the future. Ask community members, local and state leaders, and media personalities. You can ask each team or school to supply one judge. – The list is endless here.

Judges will be looking at how the team built its robot, how it performs, and why it performs the way it does. They look at teamwork, team understanding of the Challenge and the project research, and the influence of mentors/coaches. A lot to assess in a few hours! There are four areas in which judging takes place – the Competition and Pit Areas and the Team Performance and Technical Judging Arenas.

Judges spend a portion of the day in the formal judging areas, in the Pit, and on the competition floor. They will get together prior to the end of the event to review their awards choices. They may need time to revisit teams for a second time. Sometimes the choice comes down to two teams, and this second meeting can help determine which team wins the award. If desired, this meeting can take place with all the judges for additional input. It can be informal, such as going into the Pit or to the competition floor to observe teams one more time. The options are open and based on the desire of the judges.

7.2.1 The Technical Judging

There are 1 to 2 (4' x 8') playing fields (depends on size of Tournament). A team comes in with its robot and shows its strategies for performance in a quiet setting with 2 or 3 judges.

Judges look at the teams' designs, programs, and how they solved the Challenge. The focus is on the robot and what the team did and why. Innovation, mechanical practices, and strategy are important.

Child - judge discussion is emphasized. Judges want to see what the children know, what they did, and why they chose what they chose. *Coach and mentor input is inappropriate.* The children need to shine and so do their efforts! Encourage spectators and welcome them to view this part of the competition. Quiet is a must, however!

7.2.2 The Team Performance Judging

In an informal setting, the focus now turns to the team members and the science of the Challenge, the influence of the mentor, and how well the team worked together. A team of 1 to 2 judges sits with the children, exploring the presentation the team gives about the science behind the Challenge. What did they learn, how did it influence their strategy in the technical choices they made, and did their coach/mentor make an impact on them? Is there an "against all odds" story here, and what about gracious professionalism between team members and other teams? Coach and mentor input is inappropriate! Again, the spotlight is on the children and their efforts! Encourage spectators and welcome them to view this part of the competition. Quiet is a must!

7.2.3 Competition Judging

The Technical and Team Performance Judging arenas are quiet and allow for conversation in a more controlled environment. Judges get to see the children in action. Do the children follow the competition rules on the floor? Is the coach encouraging, controlling? Is team spirit running high? How do the children deal with the stress, success and/or adversity of competition? How do they deal with the other teams? Judges see the teams in action during this process.

7.2.4 Pit Judging

Back in the Pit, are teams dealing well with their attempts on the competition field? How is the coach motivating the team members? Are ideas flying and the children involved, or are they quiet, contemplating their next move? Again, the Pit area shows judges how the children are really doing and interacting and if there is a story that they missed some place else.

7.2.5 Judge Advisor – 1 volunteer

The Judge Advisor is responsible for recruiting, training, and overseeing all judges.

- This volunteer should place individuals with knowledge of programming, mechanical design and building principles to judge the Technical Awards.
- Place scientists and educators who understand the science involved with the Challenge as project presentation judges

7.2.6 Judges

Recruit distinguished individuals who can serve as role models for team members. They should have some experience in the careers reflected in the awards and team member roles. Draft judges from the local corporate, educational, scientific, political, civic, or cultural community. Judges will receive training from the Judge Advisor, criteria on how to judge the various awards, a scoring spreadsheet, schedules for the day, a training packet prior to the training, and a volunteer to help them track teams. Having a timer in each judging space also helps keep things on track.

7.2.7 Judge Assistant – 1 volunteer.

Judges need support to keep the judging process on time and successful. This volunteer

makes sure that the teams arrive on time for their meetings with the judges, ensures that the judging sessions start and end on time, delivers the judging score sheets, and enters the information into a computer. This support allows judges to spend more time with potential award-winning teams.

7.2.8 Judge Training

The schedule for the judges' day should include a training session conducted by the Judge Advisor. This session can be prior to the tournament or on the actual day, depending on availability of the judges. Send a training/informational packet that includes information on awards and their criteria, the site, tournament and judges' schedules, the Challenge, missions and refereeing process, and other related materials to make the training easier and help judges become familiar with what they need to do.

During the training session, the Judge Advisor will review awards and criteria, scoring sheets for the awards and the Challenge, missions, refereeing, and scoring. Judges should take notes while they are listening to team stories and gathering information because they will be useful for a script for presenting the awards during the Closing Ceremony.

7.2.9 What Should Judges Ask?

Understanding how the team functions will help you determine awards. To get a feel for this, judges should come up with a list of questions that the children can answer. They should ask various team members different questions. The questions should be a guide to help you understand how the team "works."

They also can help a child give you information that he or she may not have thought of, or may have a difficult time expressing. Remember, there is a lot going on and the children may not be working on enough sleep; they are excited, and are trying to focus on their missions. The process is a lot for some children, especially the younger ones!

7.2.10 Sample Questions

- How did you start the Challenge? What roles did each team member have?
- Did your first ideas work, or did you have to change them?
- How does your finished robot compare to the robot your team first thought about building?
- If you could share one thing about what makes up a good FLL team, what would it be?
- What problems did your team face? What did you do about the problems?
- What is the best thing your team did? How did they do it and why?
- If you could change one thing about your robot, what would it be and why?

7.2.11 Sample Robot Design Award Questions

- What do you like best about your design and program?
- What did the team do that no one else thought of doing?
- What is original about the design?
- What ideas did you come up with before you built your robot? Did they work?
- What did you do to improve the design to make it work even better? (The judge should then weigh this against the performance of the robot).
- Did the robot work the way the team hoped?
- Tell me what your team liked best about programming the robot.

- Was programming easy, hard? Do you wish you could have done other things when you programmed the robot?
- How easy or hard was the program to maintain? Did it crash, or did it work the way the team intended?
- Did the team use sensors? If so, what role are they playing in the robot?
- Did you reuse any of the sections? Did this work, or did the team have problems?

7.2.12 Sample Teamwork and Mentor Award Questions

- How did your team form and what roles did each member have?
- Did everyone have a chance to work on all aspects of the FLL Challenge?
- If yes, what roles did you like best and why?
- If no, why did you choose to keep roles separate?
- What is FLL about to you?
- What is the most important thing the team has learned from the coach/mentor?
- How has the coach/mentor helped you during the season?
- Tell me about a time the coach really helped you during the season.

SPACE FOR A DAY

8 SITE REQUIREMENTS AND CONSIDERATIONS

How many people are you hosting? Numbers are hard to project, but a rough estimate will get you on your way. Figure 10 children per team, plus coach and mentors, plus two to three people per team member, 8 judges, 20 volunteers, 3 referees, sponsors, media coverage – and the numbers add up! For a 10-team tournament, expect about 250 people.

There are a number of things to consider when choosing an event site, such as:

- Cost
- Team capacity
- Location
- Traffic flow between the competition areas used at the tournament

8.1 Quick Overview Of Site Considerations

This list is a guide for the site needs for a Local Event or Qualifier. In a small tournament, you can combine many of these areas, such as registration and information and the Pit and competition areas. You can have teams store their coats under their team tables instead of dedicating a special room.

Competition Area	Food/Beverage Area	Judges' Room(s), Seating
DJ/Audio/Visual Area	Pit Area	Coat Room
Registration Area	Performance Area	Spectator Seating
Judging Areas	Team Queuing Area	Awards Table
Podium/Speaker Area	Scorekeeper Area	Team tables, Chairs
Information Area	Parking	Pit Administration Table, Chairs
Presentation Area		Playing Fields and Practice Fields

8.2 Condense Space if Necessary:

There are ways to reduce, eliminate, and/or condense spaces, so the above is just a general guideline. For instance, each team needs access to an electrical power outlet to plug in its

computer. By setting up a lap top battery recharging station, you greatly reduce the needs for power drops. Think. Where can you arrange things and still have the necessary people flow?

Can you secure classrooms for the judging areas, referees, and volunteers? The competition area and Pit could potentially be in the same gym if there is a way to separate the two by a curtain or some other partition. If you use this type of setup, make sure to coordinate the audio and microphones so that one side does not drown out the other.

8.3 What Spaces And Resources Are Necessary?

Please refer to the next page for helpful tables.

NECESSARY AREAS	
Competition	1 to 2 (8' x 8' playing fields) Room for spectators, referees, volunteers, MC and/or DJ
Pit	Large enough area for one 6' table per team – marked w/team # and name – 1 (8' x 8') playing field – volunteers – signs, posters, banners
Judging (2)	1. Technical Judging area requires at least one 1/2 (4' x 8') playing field and seating for spectators, teams and judges 2. Team Performance Judging Area with informal seating for discussions between judges and teams. (Can also use practice or competition playing fields – but allow separate judging time.)
Queuing	Volunteers call teams to line them up for proper traffic flow.
Judges' Room	Room with computer setup, chairs, white/black board, pens, paper, extra forms. Tables are optional. Judges eat here.
Volunteers / Referees	Room for table and chairs, food, pens, paper, extra referee forms
Registration & Information	Area with table and chairs, computer to register teams – materials to hand out (Should be near the Pit)
Coat Storage	Empty room where teams bring their marked bins to store belongings. If not possible, teams can place their items under their Pit tables
Spectators	If possible, seating in competition area and judging rooms
Awards, Scoring, Music	Need area and tables for music, awards table, score keeper, technical items
Food	Area with tables and chairs for teams and spectators
Parking	Area with enough safe parking for teams and spectators

NECESSARY EQUIPMENT	
Electrical Wiring	Check capability for the number of teams, lighting, sound and technical needs for your site. <i>(Check this out early, as this can be costly if the site cannot meet the Local Event's needs.</i>
Lighting	Must be consistent for each playing field table – Accomplish through shop lights and trusses - outlets needed (see FLL website for specifications)
Score clock	Must have buzzer or audible type of timing mechanism
Tables, chairs, bleachers	Review all areas and their requirements for seating.
Area Separation items	Research for availability and pricing for cones, "pipe and drape," roping, or other cordoning materials. If cost is an issue, masking tape works too.
Access to a Copy Machine	Make copies of forms, e.g. referee and judging forms.
Telephones	Do cell phones work in the building? This will allow for last minute, unplanned information transmission if necessary.
Team Signage for Teams	Judges will need to see the team numbers. Have team signs made, or provide teams with sign specifications.

8.4 Safety

Find out the fire code requirements in the various areas of the building. Ask the facilities manager about evacuation plans and consider adding this to the materials given to teams attending your event. Discuss this with coaches during a brief coaching meeting prior to the Opening Ceremony.

8.5 Site Setup and Cleanup

Allow a minimum of at least 3 hours and 6 to 10 volunteers to set up the site for the event. Think about what you will need to do to prepare the site. You may need to cover wooden gym floors with paper or mats to maintain the surface integrity. This type of preparation will obviously take extra set-up time. Who is going to do this, how much does it cost, and how long does it take? Post-event site cleanup is also a part of the event formula. Leaving the site as clean or cleaner than when you arrived will help ensure your welcome in future years.

8.6 Create a Site Plan

Make a site plan for the tournament. The more work you do to plan ahead, the easier it will be to set up and break down the day of the event. Lay out where every table will be, where the power cord and outlets are, and how the Pit, Competition, and Judging areas will be set up. Pre-planning will help determine signage and volunteer needs, and will help you figure out where to cordon off areas and what materials you will need. It also allows the site director to determine how to make the event better by determining if there is something missing or if there is a need that he/she can supply.

DO YOU HAVE THE FUNDS? Budget: (\$1000+ with in-kind donations)

9 BUDGET ELEMENTS

The primary focus of these events is to reduce the cost of the tournament, making it reasonable for most coordinators to fund while maintaining the integrity of the FLL event experience. While the Local Events model the excitement of an FLL Official Tournament, they do not have to have all the extravagant bells and whistles that exist at a state tournament.

9.1 Fundraising Ideas

Here are some ideas to help raise money or recruit in-kind donations to reduce event costs.

- If there is a site fee, will the site consider a reduced cost because you are a local, non-profit organization requesting the use of the space?
- If you have an accounting procedure in place, charge a small registration fee for the Local Event or Qualifier to help offset your costs. Based on 10 teams attending an event at \$15 to \$20 per team, this gives the event a working budget of \$150 to \$200.
- Look into sponsorship opportunities for local businesses. A \$25 to \$75 fee is minimal, and can add several hundred dollars to the coffer. Sponsors may be willing to donate additional funds to become a higher-level sponsor in return for promotion of their businesses. Offer marketing opportunities, such as hanging a banner at the Tournament, having their names in the program booklet, or by sponsoring a particular award. Again, be creative here!
- If a business is not in a position to donate dollars, can it donate things such as the copying of forms, computer use for the day, food/drink, electrical experience, or awards, such as the pins, certificates, or small trophies? Would he / she join your planning committee or make a call to other businesses that might help?
- Is there a school or community group interested in making some money? Could the group coordinate the food supply for the event, while providing a community service and earning money for their organization?
- Have teams bring in food items to sell/give toward a potluck meal - minimal fee \$2.00.

9.2 Budget considerations

Item	Cost	Consider
Awards		Certificates, hand-made trophies, pins, and medals – these are up to you. Keep your budget in mind.
Computers, Monitors, Printers:		If you can, score and register teams on a laptop. Look for donations and/or borrowing this equipment! Paper and pencil will work for a small event.
Food-Drink		Everyone gets hungry. Food can be donated or purchased by teams and spectators. <i>Provide free food for judges, referees, and volunteers.</i>
Lighting		<i>Lighting in Pit, Competition, and Performance Judging areas must be consistent.</i> Teams base their robot program on specific lighting. You can purchase shop lights, with a simple lighting truss to hang them over the table. They cost under \$10. See FLL website for specifics
Mission Models		Teams can bring theirs, but have a few extra in case pieces are lost.
Music		Make a CD or tape of children' favorite, APPROPRIATE, motivating songs.
Playing fields	\$50 per table – (min. 4 tables)	4' x 8' tables. Ask a few teams if they can bring theirs. Because of ADA requirements, all playing fields must be up on saw horses so all team members have equal access to them. (See FLL website for drawings, specs)
Printing		Forms, schedules, program books, (optional), score sheets, judging sheets, etc.
Signs		Computer-generated signs are perfect!
Site	\$ 0 - \$350	Many sites are donated or charge a minimal fee. It can range from a local middle or high school gym, a business with a large meeting space, or a recreation area. Possibilities are endless. Keep space requirements in mind. See "Site Requirements and Considerations"
Sound Systems		The system should include microphones, simple walkie-talkies, and speakers for the music. There is a lot of noise, and good systems communication is the key to making all the sounds blend.
Supplies		Duct tape, markers, paper, pencils, pens, scissors, stanchions for traffic flow, a copy machine(s), tools for quick repairs, etc.
Tables - Chairs		The site should have these. Rentals push the budget out!
Technical	\$200±	To keep the atmosphere exciting and energetic, lights and music make a big difference. While the costs to do this full blown as in an Official Tournament can run upwards of \$10,000, there are some simple and fun things that you can do with a limited budget. Refer to "Technical Considerations."
Time Clock		Most gyms have one, or get a stopwatch. An egg timer and bell will even work.
Video (Optional)		Check if there is a fee to use the site equipment. Bring the excitement right to the spectators by inviting them to come down on the competition floor and get a close-up view of the action. Plan for the extra people around the tables and limit this to spectators associated with the teams competing at that time. If you have extra money, find video cameras and people to run them, screens, and TVs all hooked together. Try for donations!
Wiring		The site should accommodate the needs of the teams: Outlets!!!!, and power cords, lighting, computers, optional videos and screens, microphones, etc. If the site can't provide them, your budget will greatly increase since wiring by a licensed technician, is expensive!

10 TECHNICAL CONSIDERATIONS

10.1 Lighting and Wiring

One of the major influences on the budget is the technical requirement. To keep this cost low, use simple lighting trusses and shop lights to meet the *consistent lighting needs* (see the FLL website for drawings and specs). Teams, who work with light sensors on their robots, rely on this for programming decisions.

Electrical wiring to power team computers is essential and should be a part of main considerations when choosing the site. If the Pit cannot accommodate the electrical power needs, such as outlet and plugs for the computers, the site will face additional costs. Some older buildings may not have enough amperage to support Tournament needs. An alternative to power drops for teams, is to set up a lap top battery recharge station.

10.2 Viewing the Competition Table

A stationary video camera above the playing field shows the action on the table to the crowd. When choosing this option, the cameras will need to be linked to movie or large projection TV screens. A blank wall works okay if you can darken the room enough so spectators can see. If a camera is not available, allow a close up view for spectators associated with the competing team. Let them stand near the competition field.

10.3 Coordinator Communication

Computers, a few microphones, inexpensive headsets, or walkie-talkies for communication between the coordinators really help set the stage for a smooth day. To keep the day running smoothly, the Pit, Competition, and Judging area volunteers should be in constant contact with the each other to make sure they all know what is happening as to schedules, queuing, and judging.

Teams like to know the score of each round while they are waiting for their turns. They need to hear announcements regarding scheduling changes, when their team is ready to go on deck or to the practice tables, as well as other relevant information. Communication and coordination are important.

10.4 Audio

Audio for music can be a simple tape player, cassettes, or CDs. The music is meant to compliment the event and give it the excitement that music offers. Spectators should be able to hear the music selections - the *Charge Call*, *Who let the Dogs Out*, and *We Are the Champions* - among others. Additionally, the emcee should be giving a play-by-play and talking with the teams to find out about them so he or she can enlighten the spectators. Noise level is high, and careful coordination is necessary.

11 TOURNAMENT DAY

From teams and their coaches, spectators, volunteers, judges and referees, everyone has a schedule. Coordinating these elements takes time and careful planning and a well-planned schedule to keep the event moving. From the time registration opens, to practice time in the Pit, the opening ceremony, competition rounds, breaks, judging, to the closing ceremony, teams, spectators, volunteers and coordinators face a packed day.

Always allow for timing problems, such as a team doesn't show up somewhere and another team shows up unexpectedly. A team's robot has a falling-apart incident, and the team has to forfeit a

round. The Opening Ceremony doesn't start on time, and everything is moved back 40 minutes. And the most dreaded of all, the SNOW STORM! **People, lots of power, and excitement = VENTILATION needed!** Make sure the crowd is comfortable!

11.1 Scheduling - Does Anyone Know What Time It Is?

The sample tournament below is based on a half-day tournament. Local Events have the option of running 2 or 3 rounds and the option of including elimination rounds. The model is based on 10 teams playing on two (2) tables.

11.1.1 Judging

Teams spend 10 minutes with Performance Judges and 10 minutes with Technical Judges, with a five-minute break between teams. (Some tournaments prefer to give teams 15 minutes with the judges, so plan accordingly.) For larger groups, double the number of playing fields to keep the event ½ day, but add more judges to keep the day moving.

11.1.2 Schedules

All teams will need a copy of the schedule. Inform them that schedules are subject to change and that the changes will be announced on the main competition floor and in the Pit. It is the team's responsibility to remain informed of any changes. A brief coaches' meeting prior to Opening Ceremony helps coaches and teams understand what to expect during the day and reinforce the responsibility of teams to arrive on time to scheduled appointments. Running 3 to 5 minutes behind in judging may not seem like a lot of time, but multiply it by 10 teams, and you add an hour to the day.

Everyone needs a schedule, including referees, judges, and volunteers. Careful planning helps keep the event on track.

TIME	EVENT HAPPENINGS	JUDGING SCHEDULE	TIME
12:00 -1:00	Registration - Pit Practice	Begin Judging	12:00 - 1:00
1:00 - 1:15	Opening Ceremony	Judges @ Opening Ceremony	1:00 - 1:15
1:15 - 1:45	Round 1	Performance/Technical Judging	1:15 – 2:55
1:45 - 1:55	Break	Judges in Comp/Pit for final judging	2:55 - 3:15
1:55 - 2:25	Round 2	Judges Meet - Identify teams 2 nd round	3:15 - 3:30
2:25 - 2:35	Break	Meet with finalist teams	3:30 - 4:00
2:35 - 3:05	Round 3	Judges Meeting - final awards decided	4:00 - 4:30
3:05 - 3:15	Break	Closing Ceremony, award presentations	4:15 - 5:00
3:15 - 3:45	Elimination Round		
3:45 - 4:15	Break		
4:30- 5:00	Closing Ceremony		

HOW DO I KEEP THE MASSES ENTERTAINED?

11.2 The Tournament Theme

The success of your tournament depends on many things. One way to help everyone get in the spirit of the day is to build around the Challenge theme. In 2001, teams traveled to our Artic Impact adventure that offered new challenges. What could children build out of snow and ice? It was time to pull out winter woolies to keep warm. Boots, hats, and shovel, added to the enjoyment of the event.

Having food based on the Challenge theme is another great idea. With City Sights as the theme, teams considered specialties from their local major city. Teams and spectators came up with a city flavor and offered a small prize given out at the awards ceremony. Host sites were transformed into famous sites around the world, or became roadways, with street and directional signs, stoplights, and areas in the building became local city landmarks such as town hall, parks, and the mall.

Keeping spectators and teams active and involved during the day can make a big difference. Getting spectators to move to each of the judging sites with their teams keeps people motivated and interested. Having a high school robotics team come with its robot to let the children try it is another way to entertain. Some events have a “children’ room” where there are games and other quiet activities for children, both young and old. You will need a volunteer for this area.

Another fun idea would be to ask teams and spectators to find some engineering and project-related terms. Have teams and spectators come up with a definition for the term and submit it prior to the beginning of the final round. Pick out the funniest one and the most realistic one and announce them at the closing ceremony or during the last break prior to the closing. The fun is endless here, but can make a real difference for both spectators and children during the day. If you have a person in your community that wants to help, but not sure what they can do, organizing these types of quick and fun games may be the perfect thing!

11.3 Opening and Closing Ceremonies

These programs should have a flair that is fun, informative, exciting, and entertaining. Inviting a special well-known area guest is great. Explaining how the teams receive points in a round is important. Understanding the Challenge helps tie the Tournament process together. The closing ceremony holds its own excitement because teams find out how they did during the day. High-fives, music, and scores raise the excitement level. This is the spotlight for your emcee. Make sure he or she can get the audience rallied and ready to Rock and Roll!

11.3.1 Opening

As with any event, the opening ceremony sets the tone for the rest of the day. Keeping it exciting, but brief sends the tournament on its way. Crucial elements to include:

- Introduce important dignitaries, sponsors, and the judges because the children need to know who they are! If there is time, ask them to say a few words.
- Announce the Challenge, the missions, the scoring process, and the rules.
- If possible, play the national anthem just before ending the ceremony. Following the sports model, this is the final piece before the umpire yells “Play Ball!”

Music raises the level of excitement. The emcee leads this opening ceremony and should work with the DJ to pick out music that represents the Challenge, introductions, and other aspects. The emcee can use the audio/visual web link on the FLL website, when announcing the Challenge. All the children have heard this before, but it can get them revved up for the competition.

Teams are brought into the opening ceremony. Some tournaments have teams line up and come in Olympic style with team signs, and the emcee announces each team as it enters the competition arena. Make sure to reserve a space for the teams so they have a place to sit during the ceremony.

11.3.2 Closing

The closing ceremony combines very excited, but very tired children and adults. This is the culmination of weeks of work. The final, but lasting minutes of the tournament should be special! Teams wait anxiously for the announcements of how they stacked up against everyone else and what made the winners the winners. The final “thank yous” and the awards make this ceremony special to all.

Judges should be prepared to announce why they chose the winner with a short story about the team or by relating team comments. As team hears it, the members realize that they have a chance to win. Announcing where the team is from, the team number, and then the team name also builds the excitement. Music plays as the team runs up to give all the judges hi-fives. The team receives its trophy and the presentation produces smiles that you rarely see.

11.4 Breaks

These times should be fun for spectators. Below are some ideas to make things pop!

- Bringing in a secret star, such as the local TV or radio personality, to greet everyone is wonderful.
- Play games with the audience. Is there a local entertainment group that can come in and do a mini performance?
- Have a talent show with the spectators – winner gets a chance to call a round during the Tournament.

Be creative!

- Have a mini fundraiser. Sell duct tape pieces for a \$1.00 and have a volunteer willing to be duct taped to the wall, a great fundraiser with the principal of the site school.
- Have a cakewalk. Teams bring in a dessert to donate. Set up a circle on the floor with numbered tiles. Have a piece of paper with each number in a box. Children pay a quarter to enter. Play music as they move from square to square. When the music stops, pull a number from the box, and the player standing on that square chooses a dessert to take home.
- Play a guessing game based on the Challenge. Winners get a pin or other small token.
- Have a mini dance contest – or who can put on the most winter clothes in one minute.
- Ask a question related to the Challenge. See what the audience knows!
- Get audience volunteers out to take a fun challenge.

11.5 Event Day Load-In Checklist

Utilize this checklist to make sure you have the necessary supplies and equipment for your tournament. You may want to check the first box when you have arranged for the job, equipment, or service and the second box when you have completed the job on site.

Arrangements Made	Completed On Site
<input type="checkbox"/>	<input type="checkbox"/> Set up seating in Competition Area, Judging Areas
<input type="checkbox"/>	<input type="checkbox"/> Set up team tables (with Team Number signage) in the Pit
<input type="checkbox"/>	<input type="checkbox"/> Set up Pit Administration Table (schedules, maps, programs)
<input type="checkbox"/>	<input type="checkbox"/> Set up Playing Fields in Competition Area, Pit Area, Judging Areas
<input type="checkbox"/>	<input type="checkbox"/> Set up Judges' Room (set tables for food)
○	○ Pens, paper, clipboards, white board and markers
○	○ Judge's rating sheets and Awards Criteria
○	○ Judge's Shirts
○	○ Tournament Programs and Team List
○	○ Tournament Schedule and Judging Schedule
<input type="checkbox"/>	<input type="checkbox"/> Set up Food/Refreshment Area
○	○ Tables and chairs
○	○ Trash cans
○	○ Signage
<input type="checkbox"/>	<input type="checkbox"/> Set up Registration Table:
○	○ Information Packets: Schedules, food stores, hardware stores
○	○ Pens, paper
○	○ FLL literature
○	○ Name badges for each team member
○	○ Tournament Programs
<input type="checkbox"/>	<input type="checkbox"/> Set up Information Table:
○	○ TV / VCR and videos
○	○ FLL literature
○	○ Local maps, food and hardware store directions
<input type="checkbox"/>	<input type="checkbox"/> Display flags, hang banners and signs
<input type="checkbox"/>	<input type="checkbox"/> Run Pit Table power and cover wiring (tape down to prevent hazard)
<input type="checkbox"/>	<input type="checkbox"/> Load in all Audio, Visual, Sound, Lighting, and Electrical Equipment
<input type="checkbox"/>	<input type="checkbox"/> Run and cover wiring for computers, lights, audio/visual equipment, etc.
<input type="checkbox"/>	<input type="checkbox"/> Set up stanchions/rope for Competition Area, Bullpen
<input type="checkbox"/>	<input type="checkbox"/> Set up scoring tables/ computers in Competition Area, Judge's Room,
<input type="checkbox"/>	<input type="checkbox"/> Set up Event Office
<input type="checkbox"/>	<input type="checkbox"/> Set up Volunteer Room
<input type="checkbox"/>	<input type="checkbox"/> Test all Audio, Visual, Sound Volume, Computer, and Electrical Equipment

12 GETTING THE WORD OUT

If your event is well publicized, be prepared for calls from the media wanting to do stories on teams, the tournament, and the sponsors. This helps ease your burden of having to prepare information, but you do lose control over the content. Don't be surprised if you see something in print and wonder...where did that come from? Usually the coverage includes incredible photos that capture the spirit of the event. We suggest trying to make sure that you get copies of this coverage. Often TV stations will have a copy of the piece they create, and newspapers usually will get you extra copies of articles. We love seeing this at headquarters and appreciate the copies you send to us.

12.1 Media Plan

A media plan for the event is a useful tool. This timeline of events, critical dates, and action items serves as the primary marketing tool. The plan can include recruitment efforts for teams, the layout and design of your web page linked from the FLL Teams and Tournament Event area, timeline for press release dates, a listing of the media – local and state – that someone should contact. It can include any planned demonstrations or presentations. It utilizes the standardized press releases developed at the *FIRST* Office, which you can customize with your local information. The plan should also cover the development of a program handout that incorporates the design and copy work provided on the FLL website to help get you started.

12.1.1 Media Advisor

The following information will help you strategize and organize media coverage for your event. The Media Advisor has enormous impact on the teams, participants, sponsors and spectators as well as your event promotion and success. His or her creativity is essential to the impact of your pre and post event press releases, press packets, and handout program at the event. Promotion of the Tournament takes many forms and this person can perhaps help link your website to the FLL site. All of this creative work reflects your tournament and the hard work and effort behind the scenes.

12.1.2 Press Releases

The FLL website has a standardized release that you can use to help promote your event. It contains the crucial information about tournaments, description of event, time, place, contact information, and allows you to add your own creative flair to give the information some punch. The releases should also include some information about the sponsors and their roles. You can send this to the sponsors for their review, and ask them to distribute it to their media contacts and their company communication system. The releases can be used for Public Service Announcements (PSAs) on radio and television, as well as newspapers. You can also send an email to teams in your area, asking them to place it in their local publications.

12.1.3 Press Packet

It is a good idea to contact your media and invite them to attend the day of the event. Take a few minutes to follow up the initial call with a letter and include some general information for them to review. On the day of the event, a packet of info will make things much easier on the media and your media advisor. The packet should include information about the event and its sponsors. Include additional contact people with names and telephone or email addresses, some tournament information about the number of teams and their hometowns. To make the media representative's job easier and more comfortable, include a site plan and a setup of the tournament. If they want to conduct interviews, know whom you want for your spokespersons. Make sure they understand the event and the program. There is a lot going on, and the more prepared everyone is for this aspect, the better the coverage.



12.2 Sample Press Release

FOR IMMEDIATE RELEASE

CONTACT: [NAME]

[Number]

[Email]

[LOCATION] STUDENTS SOLVE A “Power Puzzle” WITH SCIENCE AND TECHNOLOGY

Teams solve real-world problems through robot design and research at *FIRST* LEGO® League [Event Name], [Date]

[CITY, STATE, DATE/YEAR] – Children from [#] states and the [CITY] area have been tasked with the challenge and excitement of designing and building an original robot in the *FIRST* LEGO® League program (www.firstlegoleague.org). This weekend, at [VENUE LOCATION], eight weeks of research and design will culminate in the *FIRST* LEGO® League [TOURNAMENT NAME] where teams of children and mentors will demonstrate their problem-solving skills, creative thinking, teamwork, competitive play, sportsmanship, and sense of community. Among the participants are the 9 to 14 year-old boys and girls of Team # [XX] from [YOUR TOWN], also known as [TEAM NAME]. This action-packed event is free and open to the public.

This year’s Challenge, “Power Puzzle” calls for teams to research and present robotics technology solutions concerning personal energy uses and their impact. How should we choose our cars and fuels, charge our cell phones, heat our buildings, or power our computers? Which resources should we use and why? Teams will explore how energy production and consumption choices affect the planet and our quality of life today, tomorrow, and for future generations. Can *FIRST* LEGO League teams find the ultimate solution to this global Power Puzzle? The competition is judged in five areas: research and presentation; robot performance; technical mechanics of the robot’s construction; teamwork; and gracious professionalism. The highest honor will go to the team that best exemplifies the spirit and values of the program.

Founded by inventor Dean Kamen, *FIRST* (For Inspiration and Recognition of Science and Technology) was created to inspire young people’s interest and participation in science and technology. *FIRST* LEGO® League is an international program for 9 to 14 year-old children created in a partnership between *FIRST* and the LEGO Company in 1998. Each September, *FIRST* LEGO® League announces its annual Challenge to teams, which engages them in authentic scientific research and hands-on robotics design. Using LEGO MINDSTORMS™ technologies and LEGO bricks, children work alongside adult mentors to design, build, and program robots to solve real-world challenges. After 8 intense weeks, the competition season culminates at high-energy, sports-like tournaments.

Since its inception, *FIRST* has had a positive impact on students and academic communities. “We need to show children that it’s more fun to design and create a video game than it is to play one,” said Dean Kamen, *FIRST* Founder. “In *FIRST* LEGO® League, children discover career possibilities and learn to make positive contributions to society.” *FIRST* LEGO® League anticipates its largest season ever with over [#] teams from around the world competing in qualifying events and tournaments.

ABOUT *FIRST*

An accomplished inventor, Dean Kamen, founded *FIRST* (For Inspiration and Recognition of Science and Technology) in 1989 to inspire an appreciation of science and technology in young people. Based in Manchester, N.H., *FIRST* designs accessible, innovative programs to build self-confidence, knowledge and life skills while motivating young people to pursue opportunities in science, technology, and engineering. With the support of many of the world's most well known companies, the 501 (c) (3) not-for-profit public charity offers the *FIRST* Robotics Competition and the *FIRST* Tech Challenge for high school students, the Junior *FIRST* LEGO® League for 6 –9 year olds, and the *FIRST* LEGO® League for children 9-14 years old. To learn more about *FIRST*, go to www.usfirst.org. # # #

12.3 The Web and its Links

12.3.1 The FIRST LEGO League International Website:

This site is designed to help promote FLL events.

<http://www.usfirst.org/roboticsprograms/fll/content.aspx?id=12862> , coordinators can click on the “add events” button and fill in the template to submit information about your event. Once the information is received at FIRST Headquarters, the information will be formatted and then made public.

12.3.2 FLL Forum

The FLL Forum is designed to help teams communicate with each other. Following this link, <http://www.usfirst.org/roboticsprograms/fll/content.aspx?id=12866> Teams can sign up to enter the forum and learn more about events as well as talk with other teams.

12.3.3 Event Coordinator Web Links

Each event coordinator should fill out an event listing on the “Teams and Tournament” section of the FLL website. The listing includes the details of the event such as date, time, place, contact information, how to register, and other pertinent information. Event coordinators will have the ability to have a URL link to their own web page for more information about the tournament. Teams will be able to follow links to learn about your tournament, so details are important here. This is the teams’ first contact with you, so spend time creating a page that is fun to look at and helps team learn about your event.

12.3.4 Suggested Event Information for Your Web Page

- Event Location
- Sponsors (if any)
- Number of Teams
- Date
- Time
- Registration Information Required from Teams
- Registration Fees
- Contact information
- Local Event information - schedules, what to bring, food etc.
- Directions

AND THE WINNER IS...

13 FIRST LEGO[®] LEAGUE AWARDS OVERVIEW

You will find complete descriptions below of all the awards in this section of the manual. When reaching for the top awards, please make use of the rubrics in the FLL Manual! These rubrics are judging guidelines and will provide you with a road map to success by suggesting skills a team should consider working on throughout the season and year. Please note that some larger competitions may offer second and/or third place awards in some of the above categories

The FLL Awards are divided into four main categories: Technical, Team Presentation, Special Recognition, and Judges’ Awards. All FLL State Tournament organizers are required to present the Technical and Team Performance Awards, other award categories are presented at the discretion of the tournament organizers.

13.2 Suggested Awards (Not required, but recommended)

- A. Outstanding Volunteer Award
- B. Adult Coach/Mentor Award
- C. Young Adult Mentor Award

13.3 Optional Judges' Awards (At the discretion of the FLL Partner)

- A. Against All Odds Award
- B. Rising Star Award
- C. Team Spirit Award
- D. Other Judges' Award
- E. Local Awards

14 FLL INTERNATIONAL AWARDS LISTING

The FLL International Awards represent the true values and focus of FLL internationally. Children, regardless of what country they are from or which Official Tournament they compete in, will be judged using this group of awards, ultimately leading to a recognized standard of excellence for all FLL teams.

The awards are divided into four main categories: Technical, Team Presentation, Special Recognition, and Optional Judges' Awards. Judges use the criteria of Technical and Team Presentation when determining the winner of the Champion's Award, the most prestigious honor a team can win at an FLL Official Tournament. *NOTE:* The Champion's Award is optional for Local Events.

Each of the four categories contains several individual awards. All Official Tournament organizers are required to present the Technical and Team Presentation Awards. The organizers use their discretion when presenting other award categories. In addition, all *Official* Tournament participants receive an FLL Medallion to signify their accomplishments, both on and off the Competition Field.

Award distribution is spread as equitably as possible among the teams with the goal of no team winning more than two (2) major awards. (FLL Partners do have the right to allow a team to win additional awards, and will state their policy clearly in the tournament information they provide to teams).

For guidance on how judges might assess a team, please pay careful attention to the rubrics (judging guidelines) in the Appendix of the "Coaches' Handbook." Pay close attention to the "Good" and "Excellent" categories about designing a more robust robot, how a team showcases its team spirit and enjoyed the season much more. There are rubrics for Teamwork and FLL Values, The Project, and Robot Design.

14.1 Champion's Award

The Champion's Award is the most prestigious award that any team can win. The Champion's Award celebrates the ultimate success of the *FIRST* mission and FLL Values. It measures how the children inspire and motivate others about the accessibility, excitement, and wonders of science, technology, and engineering while demonstrating respect, encouragement, and continued gracious professionalism. The winning team receives the honor of serving as a valued role model for *FIRST* and the *FIRST* LEGO® League Program.

Teams considered for the Champion's Award are those that perform well in technical and team performance categories, which are equally weighted. Once teams are selected, judges review the results of the teams' FLL Value Assessment interviews. Using this final parameter for determination, judges will decide which team(s) will receive this most coveted award. In most

cases, if a team is chosen as a Champion's Award Team, it will not receive any additional awards in the other categories.

The weight value for each of the categories is as follows:

Technical Category:	Robot Design	25%
	Robot Performance	25%
Team Presentation Category:	Project Presentation	25%
	Teamwork	25%
	Total	100%
FLL Values	Interviews with Judges	

14.2 Technical Awards

14.2.1 Robot Design Awards

Judges look for teams whose work stands out for its innovation, dependability, or both. To assess innovation, the judges watch the robots work, looking for things that make them say "Wow!" and they interview team members to reveal the less obvious unique and inventive ideas. To assess dependability, the judges interview the teams to learn what solid principles and best practices they used to reduce variability and errors, then consider the most consistent teams from among those that ranked highly.

Depending upon the tournament, organizers may choose to break this award into three separate awards:

Innovative Robot: This award goes to the team best demonstrating its ability to "think out of the box." Judges consider the most original robot design approach to solving the Challenge missions.

Robot Consistency: The best designs make products that are consistent over time and dependable under changing conditions. This award goes to the team whose robot most consistently and dependably works every time.

Programming Award: FLL presents this award to the team that understands outstanding programming principles. This team's robot demonstrated programming mastery.

14.2.2 Sample Robot Design Questions for Teams

1. Why did you go with this design?
2. How many different tasks can this robot perform?
3. What have you done to make sure the robot stays together?
4. How/why did you decide to use wheels versus treads?
5. Explain why your robot goes fast/med/slow.
6. What did you try in order to get the robot to drive straight?
7. What sensors did you incorporate? Why or why not?
8. Explain why you mounted them the way you did.
9. What is your favorite programming technique, and why?
10. Show me a program where you're using fewer blocks now than when you started.
11. Did you end up using any ideas that you first thought were crazy?
12. What makes your robot stand out as special?

14.2.3 Robot Performance Award

FLL presents this award to the team(s) whose robot achieved the best score on the competition field (or in the elimination round) at the Tournament. The top 2 or 3 scoring

teams receive this award. There are several options judges can use to determine the winner of the award:

1. If no elimination round is held, the team with the highest score receives the trophy.
2. If elimination rounds are held, the team(s) whose robot achieved the highest score in the elimination round receives the trophy.
3. If elimination rounds are held, the team that eliminates all opponents, using high score between two teams as the factor for advancement to the next round, receives the award.

14.3 Team Performance Awards

14.3.1 Project Award

On the day of the tournament, each team will have approximately five (5) minutes to deliver its Project in the form of a skit, formal presentation, and/or a demonstration to name a few presentation ideas. Judges will look for the team's ability to have more than one, or all, team members participating in the presentation. Judges will assess how your team does the following:

- A. Clearly and accurately outlines and understands all aspects of the problem
- B. Clearly defines a question to guide their research
- C. Addresses the potential impacts if the problem is not resolved
- D. Captures the judges' attention with the team presentation
- E. Presents the team solution, using robotics technology, and shows how it assists in resolving the problem
- F. Shows creativity and innovation in its solutions

FLL presents the Project Award to the team whose quality research, innovative solutions, and creative presentation best reflects an in-depth understanding of the various scientific disciplines and issues involved with this year's Challenge Project. Tournaments may choose to break the Project Award into three separate awards:

Research Quality: The use and understanding of diverse resources used to formulate an in-depth and thorough explanation of the teams' point of view and solution to the Project.

Innovative Solution: Thought provoking and innovative resolution, including how and why it was chosen.

Creative Presentation: An imaginative, creative presentation demonstrating the team's research and solution.

14.3.2 Sample Project Assessment Questions for Teams

1. What information was most helpful in defining the problem?
2. Why did your team choose this question for the project?
3. Why is this question so important?
4. How do the facts you presented relate to the question?
5. How did the team define the problem you chose to solve?
6. Why did you choose the data you did to support your solution?
7. How did conflicting data impact your problem and your solution?
8. How did you analyze data?
9. Did all the data support your conclusion and your solution?
10. How did the data help you reach your conclusion?
11. Why did you choose to raise awareness the way you did?

12. In what ways do you feel you were successful at raising awareness of the problem?
13. Why did the team choose the presentation style it used?
14. What do you think was the most important aspect of your presentation?

14.4 Teamwork Award

Teamwork is necessary to succeed in *FIRST LEGO*[®] League, and is the key ingredient in any effort involving more than one person. FLL presents this award to the team that best demonstrates extraordinary enthusiasm and spirit, exceptional partnership, and the utmost respect to its own teammates and its support and encouragement of fellow teams. For more information, refer to *Rubric: Teamwork and FLL Values* in the Coaches Handbook. The team receiving this trophy demonstrates the following attributes to the Judges:

- A. Confidence, energy and enthusiasm
- B. Problem solving skills
- C. Understanding and respect of others
- D. Team interaction and group dynamics

14.5 Special Recognition Awards

The success of the FLL Program is a reflection of the commitment and enthusiasm that our volunteers display.

14.5.1 Outstanding Volunteer Award

This award honors the dedication of the volunteer(s) whose assistance and devotion helped to change the lives of children for the future.

14.5.2 Adult Coach/Mentor Award

Many teams reach significant milestones of success thanks to their close relationship with an adult mentor. This award goes to the coach or mentor whose wisdom, guidance, patience, and devotion were most clearly evident in his/her team's discussion with the judges.

14.5.3 Young Adult Mentor Award

FLL presents this award to the young adult, high school through college, mentor whose support, impact, inspiration, devotion, and guidance were most clearly evident in the team's discussion with the judges.

Awards	Criteria	Areas of Consideration
Adult Coach/Mentor and Young Adult Coach/Mentor	Relationship with coach	<ul style="list-style-type: none"> • Coach/mentor and team communicate well • Team taught principals and applies them to other areas • Demonstrates respect for coach/mentor
	Understanding of FLL	<ul style="list-style-type: none"> • Understands what FLL is about • Effective communication independent of coach/mentor
	Independence	<ul style="list-style-type: none"> • Team can work by itself • Team does work • All have learned and can demonstrate this

	Structure	<ul style="list-style-type: none"> • Team Structure – governing rules • Leadership within team • All members exposed to all aspects of program
	Impact	<ul style="list-style-type: none"> • Understood what was learned from coach • Understood how this affected team

14.6 Optional Judges' Awards

14.6.1 Against All Odds Award

We can overcome incredible odds if we just never give up, no matter what. This award goes to the team that rises above the worst situation and has to improvise, adapt, overcome, and still makes a respectable showing.

14.6.2 Rising Star Award

There are teams that the judges notice and believe will soon be among the best and brightest. This award recognizes a team that stands out and from whom the judges expect great things in the future.

14.6.3 Team Spirit Award

Some teams really know how to go overboard. Their communities know them well. They are loud, they are bright, they jump around, and their high-fives really sting. They may rock the boat sometimes, but they always rock the house! This award goes to the team that most enthusiastically demonstrates a commitment to getting others to see how accessible, fun, and rewarding science and technology can be, especially when you are part of a great team.

14.6.4 Other Judges' Award

Many high quality teams do not exactly fit the mold for an existing award, but nonetheless deserve recognition. Some teams have a story that profoundly sets them apart in a unique way. Sometimes a given award is just too close to call. This award gives the judges the freedom to recognize the most remarkable teams for which a standard award does not exist.

15 PARTICIPANT CONSENT FORMS

Every team coach attending your tournament must supply filled out Participant consent forms: one completed copy of each of the forms for each child, coach, volunteer, and mentor in attendance to hold you and the tournament site harmless from any injuries. Find the Participant consent forms on the *FIRST* website. (Definite requirement) Teams will receive any updates, additions, participant consent forms, and volunteer recruitment, screening, and supervision guidelines for the team manual via email, and/or posting on the *FIRST* LEGO® League section of www.usfirst.org.

INFORMATION PLEASE

16 EVENT REGISTRATION

You have everything in place, the site, the volunteers, and publicity about the event. Now you are ready for the teams. Local Events must handle their own registrations. Posting information on the FLL Team Forum Pages and the FLL Calendar will let teams know about your event. List contact information, the number of teams you can host, and any deadlines for registering. You

will need to contact each of the teams that register to let them know if they have been accepted and what they will need to bring.

16.1 Registration and Packet Information

This information or Registration Packet will vary based on your tournament. So What Do I Include? Some, all? It's up to you! What to include is an important decision for event coordinators to consider. No matter what you choose, there will be something a team will ask for, so expect the unexpected. Many Local Event and Qualifier coordinators email the information to the teams. This is a low-cost and easy process. Others put together a small booklet containing all the necessary information. Your budget and time will help dictate what method is best for you.

- Overview of event - sponsors
- Schedule for the day
- Team info sheet used by emcee during Official Local Event
- Food requirements
- Contact information on day of tournament,
- What to do when your team arrives
- Rules for the day i.e.: no running, no profanity, no tobacco products
- Directions and Site Map
- Transportation ideas for robot and sheet with all allowable LEGO parts shown - teams circle which parts they used
- Pit area information
- Bring Extra Batteries – for both your laptop computer and your robot!
- Rules for the competition area
- Missions
- Who other teams are
- Technical updates from the FLL website
- Awards descriptions and criteria - Presentation
- Who the judges are and the process
- No cameras with infrared flash or lighting - it interferes with robot programs!
- Packet Check List
- Release forms for video recording and photographs - remember not all people want to or can be shown
- Fun ideas to enhance the event. (A contest submission, what children should wear etc.)
- Parking and unloading information
- Reminders for the day - lap tops, power strips, name badges, extra batteries, trading items, practice times and location of practice fields
- Personal item storage requirements

16.2 Event Preparation and Registration Checklist

Just to get you started, you may want to use the left column of boxes to pencil in those items you might want to include and use the right column of boxes when you actually pack your registration materials. Use the blank lines to pencil in ideas of your own.

- | | | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Overview of event |
| <input type="checkbox"/> | <input type="checkbox"/> | List of sponsors |
| <input type="checkbox"/> | <input type="checkbox"/> | Schedule for the day |
| <input type="checkbox"/> | <input type="checkbox"/> | Team information sheet used by emcee during the event |
| <input type="checkbox"/> | <input type="checkbox"/> | Food requirements |
| <input type="checkbox"/> | <input type="checkbox"/> | Contact information on day of tournament, |
| <input type="checkbox"/> | <input type="checkbox"/> | What to do when your team arrives |
| <input type="checkbox"/> | <input type="checkbox"/> | Rules for the day i.e.: No cameras with infrared flash or lighting - it interferes with robot programs! No running, no profanity, no tobacco products |
| <input type="checkbox"/> | <input type="checkbox"/> | Directions and Site Map |
| <input type="checkbox"/> | <input type="checkbox"/> | Transportation ideas for robot and sheet with all allowable LEGO parts shown - teams circle which parts they used |
| <input type="checkbox"/> | <input type="checkbox"/> | Pit information |
| <input type="checkbox"/> | <input type="checkbox"/> | Rules for the competition area |
| <input type="checkbox"/> | <input type="checkbox"/> | Missions |
| <input type="checkbox"/> | <input type="checkbox"/> | Team List |
| <input type="checkbox"/> | <input type="checkbox"/> | Technical updates from the FLL website |
| <input type="checkbox"/> | <input type="checkbox"/> | Award descriptions and criteria - Presentation |
| <input type="checkbox"/> | <input type="checkbox"/> | Who the judges are and what the judging process is |
| <input type="checkbox"/> | <input type="checkbox"/> | Packet Check List |
| <input type="checkbox"/> | <input type="checkbox"/> | Participant Consent forms for video recording, photographs, and liability - remember not all people want to or can be shown. |
| <input type="checkbox"/> | <input type="checkbox"/> | Fun ideas to enhance the event. (A contest submission, what children should wear etc.) |
| <input type="checkbox"/> | <input type="checkbox"/> | Parking and unloading information |
| <input type="checkbox"/> | <input type="checkbox"/> | Reminders for the day - lap tops, power strips, name badges, extra batteries for laptop computer and your robot, trading items |
| <input type="checkbox"/> | <input type="checkbox"/> | Practice times and practice field location |
| <input type="checkbox"/> | <input type="checkbox"/> | Personal item storage requirements |
| <input type="checkbox"/> | <input type="checkbox"/> | Emergency procedure information for key volunteers |
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