



**2016 FIRST® LEGO® LEAGUE  
JOHNSON CITY QUALIFYING  
TOURNAMENT  
DECEMBER 3RD 2016**

**TOURNAMENT MANUAL**

**Sponsored by:  
Nuclear Fuel Systems  
Tennessee Valley Authority  
East Tennessee State University  
Center for Community Outreach & Applied Research  
David Crockett High School  
FRC Team 5022  
Rat Rod Robotics**



## **Welcome to the 2016 FIRST<sup>®</sup> LEGO<sup>®</sup> League Johnson City Qualifier Tournament**

We are happy that you have chosen our tournament. We look forward to meeting your team, watching your robot overcome the challenges of “Amimal Allies”, and sharing an exciting day with you. We are expecting 24 teams and a total attendance of over 250 team members, coaches and spectators.

This manual contains information that will be useful to you as you plan your tournament trip. Please review it carefully to ensure you are fully prepared. If you have any questions, please feel free to contact the tournament director. Contact information is provided in the manual.

**Tournament registration is being handled electronically by the FLL team and event registration website. When you register for our event, a confirmation email is sent to you. If there are less than 64 teams registered in the Tennessee region, all teams will be accepted. If there are more than 64 teams registered in the region, then Tennessee resident teams will receive preferred acceptance. If there are more than 100 Tennessee resident teams, we will use a lottery process to choose teams for acceptance. Teams not chosen by the lottery will be waitlisted for any team cancelations.**

**Also posted on our webpage and enclosed with this manual is a Release and Consent Form. A copy of this form must be submitted for each team member, coach, and mentor.**

Again, welcome to the Johnson City Qualifying Tournament and best wishes for an exciting and successful FIRST LEGO League experience.

Guy McAmis  
Patricia Oldham  
Tournament Directors

Bradley S. Weil  
Regional Tournament Director

# 2015 FIRST LEGO League Johnson City Qualifier Tournament

## SPONSORS

The FIRST LEGO League Johnson City Qualifier Tournament is sponsored by TVA, ETSU and David Crockett High School supporting the development and strengthening of mathematics and science education and have long histories of working with K-12 education programs that utilize hands-on engaged learning activities for students, such as FIRST LEGO League.

Tennessee Valley Authority

East Tennessee State University Center for Community Outreach & Applied Research

David Crockett Rat Rod Robotics Team 5022 is a nationally-competitive FIRST Robotics FRC Team. We are excited to be hosting this FLL tournament. FLL students become our students, and we want their experience with FIRST to be the best possible one.

## TOURNAMENT CONTACTS

Guy McAmis  
Tournament Director  
Drafting Engineering, and Robotics Teacher  
FIRST Robotics Team 5022 Lead Mentor  
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Office Phone: (865) 574-7147  
Email: [weilbs@ornl.gov](mailto:weilbs@ornl.gov)

## **TOURNAMENT DATE AND SCHEDULE**

### **Saturday, December 5, 2015**

NOTE: All times shown are in Eastern Time. The starting time for team setup and the opening ceremony are fixed. All other times are subject to change and depend upon the total number of participating teams. A final schedule will be provided on tournament day to each team coach.

8:00 AM	Check-in, Team Setup, and Practice
8:15 AM	Mandatory Coaches Only Meeting
8:30 AM	Opening Ceremony
9:00 AM	First Round Competition Begins
10:30 AM	Break
10:35 AM	Second Round Competition Begins
12:00 PM	Lunch Break
1:30 PM	Third Round Competition Begins
1:30 PM	Infotainment and Jr. FLL Awards
3:00 PM	Awards Ceremony
4:00 PM	Tournament Ends

## **LOCATION AND DIRECTIONS**

ETSU Mini Dome  
1081 John Robert Bell Dr,  
Johnson City, TN 37601

## **PARKING**

There is plenty of parking in the parking garage.

## **TOURNAMENT DAY CHECK-IN**

Mini Dome will be open at 8:00 AM on Tournament Day. Coaches should report to the registration table and teams should proceed directly to the pit area. The registration table will be located just inside the front entrance from the parking lot. Nametags, a final schedule, lunch tickets (if ordered), pit assignments, and other information will be issued. To avoid congestion at the entrance, volunteers will be stationed near the entrance to direct teams to their pit locations.

## TEAM SIZE

Teams are limited to a maximum of ten (10) members, excluding coaches and mentors. Teams are expected to observe this limit so we can avoid overcrowding in the pits and prevent disappointments when medallions are distributed. Teams will receive one medallion for each team member, up to a maximum of ten.

## ADULT SUPERVISION REQUIREMENT

All teams must be accompanied at all times by at least one adult coach or assistant coach, the coach must remain at the tournament site throughout the day. Unsupervised teams will not be allowed to compete.

## SECURITY OF TEAM EQUIPMENT AND PERSONAL ITEMS

The sponsors cannot accept liability for lost or damaged items. Please make sure that someone on your team monitors your team equipment and personal items.

## PIT AREAS AND PRACTICE TABLES

Pit areas will be located in the atrium (see the tournament facility map in the appendix). Each team will be assigned a pit table and an electrical outlet. Each team pit table will be marked with a placard identifying the team number and nickname. To facilitate locating teams by event volunteers and judges, teams should occupy the pit tables that are assigned and should not relocate themselves during the check-in process. Practice tables, identical to the competition tables, will be available throughout the day. Volunteer "Pit Bosses" will be stationed in the pit area and at the practice tables to provide assistance and manage access. Practice time will be limited to five minutes when other teams are waiting. Only team members, coaches and tournament officials will be allowed in the pit and practice table areas. However, the pit and practice table areas will be arranged such that spectators can observe the activities. **No food or drinks are allowed in the practice table areas.**

## TEAM BANNERS, POSTERS, AND STICKERS

Teams are encouraged to bring a team banner or poster to mount on the wall in the pit area only. This is an excellent way to display team spirit and identify your team for the judges and spectators. Please limit banners and posters to a maximum size of 4' by 4'. **No posters, flyers, or signs should be posted outside of the pit area by any team.**

## TOURNAMENT SCHEDULE OF EVENTS

A final schedule of tournament events will be provided to each team coach during check-in. See the appendix for an example schedule. Times on the schedule are approximate. During the tournament each team will participate in three (3) Robot Performance rounds, make their Research Project Presentation and be interviewed for Robot Design, and Teamwork. To accomplish all this, the event is scheduled in the following way:

### ROBOT PERFORMANCE ROUNDS

The Robot Performance area is located on the main floor of the Mini Dome. There will be two pairs of tables set back-to-back; a total of four tables. Two tables will be numbered.

Teams will be participating in the performance rounds according to their pit position. For example, teams in pits 1 and 2 will begin each round and all other teams will follow in sequence according to their pit position. Tournament volunteers will escort teams to the on-deck area five minutes prior to the start time. When the referees signal that everything is ready, the teams will be escorted to the competition tables and given approximately one minute to prepare and place their robots. At the end of the setup period, the referees will start the 2½-minute competition period. At the end of the competition period, the referees will determine scores and tell the teams when to retrieve their robots and exit the competition area. Only two team members may stay at the table while the robot is attempting a mission. Other team members must remain behind a line on the floor. If a team is not prepared to compete at their assigned time, they will forfeit that round. A team's best score out of the three competition rounds will be used for performance award determinations. Performance rounds will be conducted in accordance with the rules and standards published in the FLL Team Manual, including any changes and modifications that have been posted on the Official FIRST<sup>SM</sup> LEGO<sup>®</sup> League web site.

### TEAM RESEARCH PROJECT PRESENTATION

During the first two performance rounds, teams that use the **BLUE** tables should proceed immediately after their performance to the designated classroom area, and be prepared to make their Research Presentation in their assigned room when called by the judge or volunteer.

Team research presentations will be held in an informal setting with only team members, team coach, parents and judges present. Teams should be prepared to make their presentations to the judges immediately after their first round of competition. Each team will have a maximum of 10 minutes to setup, deliver their presentation, and discuss their research with the judges. Presentations should not be longer than four to five minutes to allow plenty of time

for discussion with the judges. Posters and other visual aids may also be used. A copy of the judge's evaluation sheet is attached.

**Note:** Video presentations are discouraged due to the excessive setup time required. If a team wants to use video presentation materials, such as PowerPoint, they must provide the computer, projector, cart, and extension cord. No additional setup time will be allowed.

## **TECHNICAL INTERVIEW AND CORE VALUES INTERVIEW**

During the first two performance rounds, teams that use the **WHITE** tables should proceed immediately after their performance to the designated classroom area and be prepared for their Technical Interview at their assigned table. Teams must bring their robot, with all mission attachments, and a printed copy of their RCX, NXT or EV3 programs to the technical interview. Teams should seek out the programming judge and give their printed programs to the judge. The technical interview provides an opportunity for each team to meet with technical judges, demonstrate their robot, and discuss its design. A maximum of ten minutes will be allowed for each team. A copy of the judge's evaluation sheet is attached.

After completing their Technical Interview, teams should find and report to the corresponding Teamwork Interview judge for the table where the technical interview was made. For example, a team interviewed at Table A would report to Teamwork Judge A. A copy of the judge's evaluation sheet is attached. After completing the teamwork interview, teams can return to the pit area.

## **JUDGES AND REFEREES**

We have assembled an impressive team of judges and referees for the tournament, including engineers and scientists, universities and industry. The judges are looking forward to meeting the teams, hearing team research presentations, and watching robots perform. Each team should be prepared to share their experiences with the judges and discuss the design of their robot. The referees are looking forward to providing teams with the best possible opportunity to demonstrate their robots during the competition rounds. Please give the judges and referees your complete attention and cooperation. Also, please keep in mind that the decisions of the referees are final and there are no provisions for protest or appeal.

## **ALLOWABLE PARTS AND SOFTWARE**

At any time during the tournament, the judges and referees may inspect robots to determine if they comply with the allowable parts and software rules as stated on the Official FLL website.

## AWARDS

Each team member will receive a FIRST LEGO League qualifier event pin for participating in the program. In addition, numerous team awards will be presented at the qualifier tournament.

- Champion's Award (1<sup>st</sup> – 2nd)
- Robot Performance Awards (1<sup>st</sup> – 3<sup>rd</sup>)
- Robot Design Awards (1<sup>st</sup> – 3<sup>rd</sup>)
- Core Values Awards (1<sup>st</sup> – 3<sup>rd</sup>)
- Research Project Awards (1<sup>st</sup> – 3<sup>rd</sup>)

It is the aim of the tournament to distribute awards as equitably as possible among the teams, with the goal of no team winning more than two awards of the required FLL core awards at a qualifier tournament. A team can only win a second award if one of the awards they win is for Robot Performance.

## LUNCH

Gourmet box lunches are available as a pre-order item for teams and guests. We encourage you to support our hosting efforts and plan to join us for lunch by ordering your lunches in advance. The order form can be found in the appendix of this document.

## ACCOMMODATIONS FOR PERSONS WITH SPECIAL NEEDS

Please contact the tournament director as soon as possible if anyone attending the tournament with your team requires special accommodations.

## REQUIREMENT FOR RELEASE AND CONSENT FORMS

**In the appendix of this manual is a Release and Consent Form. Either a copy of this form or your team roster from TIMS must be submitted for each team member, coach, and mentor. These forms must be mailed no later than Thanksgiving Day. This is a FIRST policy. Teams that do not submit forms will not be allowed to participate in the tournament.**

## **SAFETY AND SECURITY**

Child safety is paramount to all of us involved with young people. Due to the age of the participants in the FLL program, you the parents and guardians, are essential to their safety. Please educate your child about how to recognize situations that may put them at risk, as well as what things they can do to protect themselves such as always having a companion.

We know you take measures to ensure that you are comfortable with the adults working with your child's FLL team. Beyond the FLL team meeting environment, where you interact with the adult volunteer(s) over a long period of time and can make these judgments directly, there are FLL events with volunteers interacting with your child for one day. In this case it is essential that you educate your child about basic safety practices. For example: the importance of staying with their team or at least in pairs at all times and not leaving the venue except with you, their parent/guardian, or perhaps the team's coach or mentor, if agreed to by their parent/guardian.

**DUE TO LIABILITY RESTRICTIONS, SKATE SHOES ARE PROHIBITED AT THIS EVENT.**

## Lunch and Catering Options (Please Double Check Pricing and Delivery)

Teams have a variety of options for lunch, so we have tried to provide suggestions to save you time and effort. Please do double check our information as you order, but this is a great place to start. See our notes below about bringing coolers - it's a go.

Teams, please note that ALL food and trash MUST BE REMOVED from the facility BY the TEAM.

**Gracious Professionalism Opportunity:** Since ETSU graduation will be held in Memorial Center (the Dome) the following Saturday, FLL is working hard to be gracious guests and keep the facility extra tidy. Please help us have the opportunity to use the Dome on this weekend next year by helping us keep our competition facility ship-shape! Thank you and contact us if you have any questions.

### Chick-fil-A West Market Street (NOTE: Peanut Oil is used in some products.) 423-232-2880

West Market St. and State of Franklin Road (behind Walgreen's in Fresh Market shopping center)

<http://www.cfarestaurant.com/westmarketstreet/home>

"Chick-fil-A cooks in 100% refined peanut oil. According to the FDA, highly refined oils such as highly refined soybean and peanut oil are not considered major food allergens and therefore are not listed here."

Standard Chicken Sandwich Meal for \$6.90 or Premium Chicken Sandwich Meal with a choice of a side for \$10.20. Drinks are extra. Please check details with Chick-fil-A. Online ordering is available.

### Jimmie John's Sandwiches 423-232-4090

West Market Street near State of Franklin Rd. (Behind Hardee's and Taco Bell)

<http://www.jimmyjohns.com/catering/>

[http://www.jimmyjohns.com/downloadable-files/jj\\_menu\\_no\\_prices.pdf](http://www.jimmyjohns.com/downloadable-files/jj_menu_no_prices.pdf)

Box lunches available as are boxes of 12 & 2 Mini Jimmys

Deliver Fee may apply, please confirm.

(Recommend 24 Hours Advance order)

### Jason's Deli 13 423-467-3354

[http://www.jasonsdeli.com/sites/default/files/private/menus/DMI\\_Online\\_Guide.pdf](http://www.jasonsdeli.com/sites/default/files/private/menus/DMI_Online_Guide.pdf)

1091 Hamilton Place (Near Lowe's/State of Franklin Hospital off State of Franklin Rd.)

\$25.00 Minimum Order for Delivery

Box Lunches from \$7.89 to \$9.99 per box: drink extra

(Recommend 24 Hours advance order)

**The Firehouse (BBQ and Sandwiches)**

423-929-7677

<http://www.thefirehouse.com/> Catering Office M-F 9AM-5PM

627 West Walnut St. (Near ETSU)

Pick-up required.

BBQ Varieties with Sides, options to add a dessert and add a drink.

Options range from \$6.50 per person to \$13.75 per person

(48 hours in advance order)

**Jersey Mike's Subs**

423-929-1221

<http://www.jerseymikes.com/order/4002/start>

ETSU/Kroger Shopping Center, 1805 West State of Franklin Rd, Suite 100 (End unit in Kroger Shopping Center on the hill)

Subs by the Box, By the Bag, or Personal Boxed Lunches-Boxed Lunches are available in Regular or Mini Sizes: includes any Cold Sub, Chips, and a Cookie. Can choose with or without a 20oz drink for extra cost.

Pick-Up is required, no delivery available.

**Honey Baked Ham**

423-54-9414

[MyHoneyBakedStore.com/Johnson City/1538](http://MyHoneyBakedStore.com/JohnsonCity/1538)

3101 Browns Mill Road

Box Lunch \$7.99 Any Signature Sandwich, served with a pickle, a deli side OR chips, and a choice of cookie OR a Brownie.

If you choose the SPECIALTY sandwich: \$8.49

Drink ordered separately

Whole and Half Salads also are available, with extra options. Please see catering menu.

**Immediate Vicinity Fast Food**

McDonald's

(corner of University Parkway, West Walnut, and State of Franklin)

Bojangle's

(walking distance, same side of the street as ETSU Dome)

Wendy's

(walking distance-use pedestrian bridge!)

Cook-Out

(walking distance-use pedestrian bridge!)

Poor Richard's Uptown (new location on State of Franklin)

Driving across the street would be optimal

Knight's Pizza and Sports

(walking distance, same side of the street as ETSU Dome)

Pizza Hut

(ETSU/Kroger Shopping Center on hill on State of Franklin)

Domino's at ETSU

(Walking Distance: Earth Fare Shopping Center next to ETSU Dome)

Barberito's

(Walking Distance: Earth Fare Shopping Center next to ETSU Dome)

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**Packed Lunches and Coolers**

Yes, you may bring packed lunches and coolers into the Memorial Center. Be certain that you stow your coolers/lunch under your assigned space table. Please do not encroach into other team's work spaces.

UNITED STATES FOUNDATION FOR THE INSPIRATION AND RECOGNITION OF SCIENCE AND TECHNOLOGY  
(FIRST®)

**CONSENT AND RELEASE AGREEMENT**

Participant Name: \_\_\_\_\_

If Participant is under 18 years of age, Parent/Guardian Name: \_\_\_\_\_

Participant Date of Birth if under 18 years of age [MM/DD/YYYY]: \_\_\_\_\_

Participant Address: \_\_\_\_\_

Participant Email (If Participant is under 18 years of age, Parent/Guardian Email): \_\_\_\_\_

Participant Team Number: \_\_\_\_\_

The Participant identified above ("Participant") desires to participate (as a team member, coach, mentor, judge, or in some other manner) in the *FIRST®* Robotics Competition, *FIRST* Tech Challenge, *FIRST* LEGO® League, Junior *FIRST* LEGO League, or another *FIRST* program (the "Programs"). As a condition of allowing Participant to participate in a Program, United States Foundation for Inspiration and Recognition of Science and Technology ("*FIRST*") requires that the Participant (by his or her Parent/Guardian if under 18 years of age) agree to the terms of this Consent and Release Agreement.

1. Participant (and the Parent/Guardian of a Participant under 18 years of age) understands that participation in the Program will expose Participant to risks of injury including, without limitation, injury from: building, lifting, and using electrical/mechanical robots and robot components; using tools; other participants; dancing and other associated activities. Participant (and the Parent/Guardian of a Participant under 18 years of age) understands that *FIRST* does not select, employ, supervise or otherwise exercise authority or control over the coaches, mentors, and other participants in the Program. Participant, if 18 years of age or older, acknowledges and agrees that he/she is primarily responsible for his/her safety. The Parent/Guardian of a Participant under 18 years of age acknowledges and agrees that the Parent/Guardian is primarily responsible for the Participant's safety and that the Parent/Guardian will monitor, as appropriate considering the age of the Participant and other factors, the Participant's participation in the Program.
2. **In consideration for *FIRST* allowing the Participant to participate in a Program, Participant (and the Parent/Guardian of a Participant under 18 years of age for and on behalf of the Participant and the Parent/Guardian) assumes all risk of such participation and hereby releases *FIRST* and (except as expressly provided below) all of *FIRST's* directors, officers, employees, volunteers, and agents from any and all claims for any injury of any kind to the Participant (and the Parent/Guardian) or other damages that may occur as a result of the Participant's participation in the Program, including without limitation any injuries or other damages that may be caused by the negligence of *FIRST* or negligence of any of *FIRST's* directors, officers, employees, volunteers, or agents (including without limitation negligently failing to adequately investigate or screen coaches, mentors, volunteers, etc.), and agrees not to file any lawsuit or otherwise make any claim against *FIRST* or any of *FIRST's* directors, officers, employees, volunteers, or agents for any such injury or other damages. The Participant (and the Parent/Guardian of a Participant under 18 years of age) does not hereby release any claims against any individual person who intentionally causes injury to the Participant.**
3. Participant (and the Parent/Guardian of a Participant under 18 years of age) understands that photographs, videotapes, and other recordings will be made of participants in the Programs, including the Participant. Participant (and the Parent/Guardian of a Participant under 18 years of age) consents to those photographs, videotapes, and other recordings and the use thereof (i) as part of a record of the Program and (ii) to promote *FIRST* and the Programs.

**Participant (and the Parent/Guardian of a Participant under 18 years of age) has read this document and understands that this Consent and Release Agreement includes a waiver of the right to make injury claims that is intended to be legally binding. By signing below, Participant (and the Parent/Guardian of a Participant under 18 years of age) agrees to this Consent and Release Agreement.**

\_\_\_\_\_  
Signature (of Participant if 18 years of age or older or Parent/Guardian if Participant under 18)

\_\_\_\_\_  
Printed name of person signing

\_\_\_\_\_  
Date