Fun at the Fair Challenge 2017
Regional Host Information Packet

Thank you for all your hard work. This packet is intended to help you finalize plans for your regional tournament. The RCX State Tournament, held at the STLP State Championships on April 12, 2017, will follow the format outlined in this document. This packet includes rules, missions and helpful hints for running your tournament.

1.   Communication with Schools/Teams
2.   Tournament Prep
3.   Supplies
4.   Tournament Setup
5.   Rules and Missions
6.   Referee Helps
7.   Tournament Wrap-up

As you run your event, final decisions as to it relates to your tournament are yours. If there are any concerns, make a judgment call to benefit the students. Sometimes the flip of a coin may be the easiest way.

1. Communication with Schools/Teams

It is time for you to communicate directly with the schools and teams that plan to participate at your regional event. School/team registration information will be provided to you in a separate file. This file will include school names, team names, coach contact information, plus other information you may use to aid in your preparation for your regional event. The RCX website provides general information for your tournament, it is up to the regional host to provide specific information for teams to follow for the regional event.

2. Tournament Prep

You will need to manage your tournament. That includes everything from setup to cleanup, the tournament schedule, the Competition Rounds schedule, volunteers, concessions, etc., whatever it takes for you to run a successful event. Contact the RCX Program Manager for details if you need help organizing your tournament. I recommend you make several copies of the RCX General Rules, Annual Challenge Rules and Missions, and the RCX Program Tournament Policy. Also, have web access to the RCX website for the videos and Q&A on the day of the tournament. This will allow you and other volunteers the ability to make informed decisions on tournament day. Coaches already have access to this information so you will not have to make copies for them.

RCX Support Documents:
The RCX Program has provided you documents and computer based programs designed to help both the teams and hosts prepare for the tournament. Go over the RCX General Rules, Annual Challenge Rules and Missions, RCX Program Tournament Policy and other documents at the RCX website to familiarize yourself with what the RCX Program is all about.   On the day of the tournament, be prepared to answer questions you may receive from those attending your event.

Also, the Excel based Annual Challenge Scoresheet is vital for those who wish to project team scores and rankings for everyone to see. This scoring program will automatically update team scores as you enter each team's match information. After your tournament, forward these results to the RCX Program Manager for review. These scores help the RCX Manager adjust challenges from year to year based on team scores and which Missions were achieved.

Referee Training:

I strongly recommend you host a separate night for referee training. A Referee Training video is now online, go to :

> https://www.youtube.com/watch?v=ss6AGM5M33s&list=PLt4XwT4iRPUFgDlSJzh51lTPGF2zXhjHQ

Most of the referees are volunteers and the tournament will be the first time for them to referee a RCX event. All Annual Challenge documents and videos can be found at:

> http://rcxrobot.org/pages/fun-at-the-fair

At the training session, go over the RCX General Rules, Annual Challenge Rules and Missions, the RCX Program Tournament Policy and Mission videos. By taking the time to train the referees, you will eliminate scoring errors, application of the rule errors, etc. Take the opportunity to contact the RCX Manager to clarify any questions the trainer or trainees may have. Pre-arrange the training session with Doug Geiman to allow for communication during the training to answer questions.

3. Supplies

The following is a list of supplies needed to host a tournament with four Boards. Review the files "Board Building 101" and "Quad Assembly" for assembly of the tables at your tournament. Your venue may require additional items.

- 4   6' Tables
- 4   Boards
- 4   Kits, including mats and mission objects
- 2   6' Tables for Registration
- 1   Time Keeper Table, with timing mechanism
- 2   Scorer's Tables, with computer. Projector optional.
- 3   Extension cords

Documents

- 1   RCX General Rules
- 1   RCX Program Tournament Policy
- 2   Annual Challenge Rules and Mission
- 3   Score Sheets per team. Have different color paper for each Round. Extras are a good idea.
- 4   1- Clipboard for Referees to keep score per table
- 1   Box of pens to use throughout the day

4. Tournament Setup

Setup for your tournament will take a couple hours, so it is recommended to setup the night before. The best venue for your tournament is to have a facility with separate gym and cafeteria areas. This allows for a separate competition room and a staging room for teams.

Also, the bleachers of the gym provide the perfect place for the parents to sit and watch the event.

Registration Table
At the entrance to your venue, place several tables for teams to register. At this point, provide each team with an event schedule, Round schedule outlining times and which Boards teams will compete at, 3 Score Sheets one for each Round, and any other information you wish to provide. For the event schedule, make sure to include the time and location for the Coaches Meeting, when Round 1, Round 2, & Round 3 will start, Intermission, and Awards.   At the Registration Table, I strongly recommend you inform Coaches to have family members stage in the Competition Room, while team members stage in the room set aside for them, better known as "The Pit". By separating the kids from the families, you have less opportunity for the inadvertent damage to robots or other team supplies.

Competition Room
1   Team flow is vital. As you layout Board locations, keep in mind how teams will stage before their match, during their match, and as they leave their match. If possible, assign one door for teams to enter through and a second door for teams to exit through. Name Boards: A, B, C & D; to help teams know which Board they are assigned.

2   Board Setup
Board construction is outlined on the RCX website: Board Building 101 and Quad Assembly.

A   Each tournament should have a minimum of 4 Boards set up. Borrow Boards, Mats and mission objects from attending schools. The following steps will vary slightly due to Board construction and condition. Do the best you can to make the Boards work.
1) Follow the instructions for the "Board Building 101".
2) Follow the instructions for the "Quad Assembly".
3) Place the Mat on each Board. Use double sided tape to attach the mats. Each Mat has a red line in the middle of the "North" wall. This line should match up with the "South" rail of the adjacent Board.
4) Now level the Boards. By attaching the Quad Platform, the Northeast corners of all Boards align at the same height. Use a level, to level the Boards. Start by leveling the Quad Platform area of all Boards. Use wooden shims to adjust the height between the table tops and the Boards. I find stacked LEGO plates make good shims.
5) Borrow sets of missions objects from attending schools. Use the dual lock provided with your mats to attach mission objects.   Attach the mission objects.
6) Provide a chair or small table, known as the Extension of Safe Zone, by the Safe Zone side of the Board to allow teams to stage robot attachments and Retrievable Objects from the Board.
7) While two team members are at the Board, other members of the team need to remain roughly 10 feet from the table for the referee to maneuver. Place a piece of tape on the floor for team members to stand behind.

8) Coaches need to be placed in a second area, away from all team members. Coaches are not allowed to give instruction during the match.

9) Provide a clipboard, pen, and extra score sheets for each Board Referee Score Keeper. Additionally, copies of the RCX General Rules, Mars Adventure Challenge Rules and Missions, and the RCX Program Tournament Policy should be available for review for the Head Referee during the Tournament.

B   Time Keeper
If possible use the scoreboard of the gym to keep time. Usually the scoreboard is located so everyone can see. Plus, you can use the horn at the start and end of each match.

C   Tournament Score Keeper's Table
This table should be setup in a convenient location for Team Captains to hand over score sheets as teams exit the room. Team Captains may remain to insure their score is entered correctly, however, other team members need to leave the Competition Room. Placement of this table should be near the exit.

3   Awards Table
Conveniently located.

5.   Rules and Missions

You are in charge, your decisions are final, so please review the RCX General Rules, Annual Challenge Rules and Missions, and the RCX Program Tournament Policy before the tournament. Also, go to the RCX website and review the Q&A listed at the Annual Challenge tab on the Home page. These items will form the basis for you to manage your tournament. Pay close attention to the following Rules and Missions for this year's challenge to illuminate confusion.

To help clarify Rules:
    General Rules form the basis of the competition
    Annual Challenge Rules and Missions take precedence over General Rules
    Missions Videos define the Mission
    Mission Object Building Instructions, picture the location of object at start of Match
** Due to some video/picture conflicts, the correct view is the view pictured.

Time: Each Match is **3 minutes, 0 seconds** long. The clock does not stop once the match has started.

Quad Platform: The table design may cause some challenges for team members. Make sure to create enough room between the Boards and where team members watch.

RCX Program Tournament Policy Rules 4 & 5: These rules DO NOT need to be followed do to the nature of this year's challenge. There is NO advantaged gained or lost.

Teams may compete against teams of different Divisions. There is NO advantaged gained or lost.

6. Referee Helps

Each tournament should have a Head Referee to coordinate activities within the Competition Room that effect the Tournament Host, the Tournament Score Keeper, Time Keeper, Board Referee, Board Referee Score Keeper, coaches and other tournament volunteers.   Prior to tournament day, the Head Referee should review The RCX General Rules, Annual Challenge Rules and Missions, RCX Program Tournament Policy, and the videos and Q&A posted on the RCX website. Contact the RCX Program Manager, Doug Geiman at doug.rcx@gmail.com or 24/7 at 859-835-0546 for clarification. The Host should clarify with the Head Referee how the Regional Tournament will approach the Rules and Missions outlined above in section 5 Rules and Missions.

Adhere to the following steps to have a successful tournament:
a) Board Setup
The Head Referee should be involved with the Board Setup. As the Tournament progresses, things are bound to break, so this knowledge will help you repair element pieces. NO element pieces should be glued together to prevent damage.

b) Coaches Meeting
Conduct a Coaches Meeting before Round 1 to go over the Board Setup, Tournament flow (how teams enter/exit the competition room), Q&A, and any other item you need to cover for a successful tournament.

c) Round Management
1. Tables: A minimum of 4 tables should be setup with Boards for teams to compete in head-to-head matches. The Host will schedule times and locations for teams.

2. Head Referee: The Head Referee will monitor all activity within the Competition Room.

3. Two Board Referees: Each Board should have 2 referees. One referee will be responsible to keep score, the other to reset the Board between matches. Both referees will monitor the Board during a match to render assistance to a team member (only when asked), to monitor for "Touch Penalties", etc. At NO time

should a referee offer a strategy or other help. This may unfairly improve the team's performance.

4. Match Setup: One referee receives a score sheet from the team, the other referee reviews the robot to make sure it is a legal robot, in other words the robot is designed to follow the RCX General Rules. The team has 1 minute to setup and review the Board for accuracy.

5. Match Start: When all teams are ready, the Head Referee notifies the Time Keeper. The Time Keeper then sounds a horn, blows a whistle, etc. to start the clock.

6. The teams run their robots.

7. Match Over: Horn sounds, whistle blows
  a. Both referees watch the action of the robot and award points based on the action of the robot at the time the match ended, not when the robot stops.
  b. The referees ask team members to step back from the table, and then score the Board, subtract any "Touch Penalties" if necessary. Remember to check the chair or table next to the Safe Zone for scoring objects. Set these objects in the Safe Zone so teams don't walk off with the pieces.
  c. The Board Referee waits until the Board Referee Score Keeper's review of the Board is done, then resets the Board.
  d. The Board Referee Score Keeper reviews the results with the Team Captain only, NO Coach, while the other team member retrieves the robot.   The referee then instructs the Team Captain to take the score sheet to the Tournament Score Keeper.
  e. Meanwhile, the Head Referee ushers out teams that just finished the match, then ushers in the next teams to their assigned Board.
  f. Once the referees have reset the Board, teams begin with the "Match Setup", Step 4 above.

8. Between Round 1 and Round 2: The Head Referee needs to have a meeting with the Host, the Board Referees, the Tournament Score Keeper, Time Keeper, and any other volunteer necessary. Review the previous Round. Agree on changes, announcements, etc... Then the Host or the Head Referee will make an announcement to the Coaches and teams of any changes. Remember to make decisions to benefit the students.

9. Conduct Round 2 & 3

7. Tournament Wrap-up

The RCX Program provides awards for the "Champion", and "Runner Up" for each Division. Additional trophies are at the Regional Host's discretion. For Regions which have provided the "Traveling Trophy" in the past, it is up to the Regional Host to continue this practice. The "Traveling Trophy" travels from school to school each year. A plague will be provided to the "Champion" school to attach to the trophy after the tournament.

At the conclusion of your tournament, Champion and Runner-Up teams, of each division, are eligible for the STLP State Championships on April 12, 2017 at Rupp Arena. Confirm with your teams before they leave your event whether they will attend. If a team cannot attend, invite the 3rd place team, 4th place team, etc... Notify The RCX Program Manager, Doug Geiman, at doug.rcx@gmail.com of the teams who will be attending the STLP State Championship by Tuesday following the tournament. Information between the STLP Coordinator and the teams will need to be filled out.

8. 2016 Challenge

Preparation for the 2018 RCX Challenge has started. Fun, excitement, and possibly breath-taking at times are the emotions many have experienced. Teachers have inquired how to better fit The RCX Program into their curriculum. While the RCX Program has no formal curriculum to follow, teachers are encouraged to use the topic for classroom lessons, and to assign research projects to go along with the challenge. Complete information for next year's challenge will be posted on the RCX website by the start of next school year.

9. Thank You

Make sure to share with your volunteers a "Thank You" from the entire RCX Program Committee. The commitment from everyone allows the RCX Program to grow by encouraging students to be creative, problem solve, strategize, and program robots to do unique things. "Thank you" again, to the Host, and everyone else who volunteers their time to coach, teach, and aide the RCX Program.