



Head Referee Orientation

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Tournament Goal



-
- The team members should have fun showcasing their efforts of the past weeks
 - Referees do this mostly through expert application of the rules
 - Celebrate and spread the word



Head Referee Role



- Recruit and train table referees
 - Learn and Practice
- Govern the Competition Floor
 - Coaches' Meeting
 - Observe the tables
 - Coordinate table activity
- Support the table referees
 - Referee Conferences
 - Explaining rulings



Referee Training



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- Learn the materials
 - Field setup + Missions + Rules + Robot Game Updates
 - Practice!
 - Think about situations
 - Practice matches
 - Talk it over
 - Referee Training Call -- not scheduled yet



Referee Training



- Pre-Tournament meeting
 - Hands-on on the field, model set/reset
 - Review rules and missions
 - Length depends on experience level
- Morning Meeting
 - Discuss local ground rules
 - Set the Stage
- Visit the Pit and pit tables--talk to the teams



Govern the Competition Floor



- Observe the tables
 - Float around
- Coordinate table activity
 - Start of match
 - Breaks, Assignments
- Interact with Teams and Emcee
- Spare parts & model repair support



Support the Table Referees



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- Referee Conferences
 - To discuss a particular ruling
 - Between rounds: issues or unique situations
 - Explaining rulings
 - Extended discussions of the rules should be with the Head Ref, not the Table Ref -- need to stay on schedule, have a cooling-off zone
 - Breaks!



Table Referee Role



- Learn and Practice!
- Inspect the Field
- Govern the Action
- Make Judgment Calls
- Record Performance

Make the RIGHT call



Learn and Practice



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- If the tournament schedule permits, referees should try to visit the pit area and watch teams at the pit tables
 - Team members will have questions, and you can see any unusual strategies that you might want to alert the rest of the refs about
 - Focus on: Updates, Rules, Missions



Inspect the Field



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- You may have a Field Attendant to help you reset the field between matches, but the ref is responsible for the condition of the field
 - If there are any errors or possible errors seen during the match, the team gets the Benefit of the Doubt, and any points associated
 - Focus on Field Setup and Missions

Govern the Action

- Put the children at ease
 - They will be nervous, especially in the first round
 - Calm and reassure
 - “What does your robot do first?” “What’s really cool?”
 - “Does your robot have a name?” “Favorite mission?”
 - Joke, wear funny hats
 - Get down to their level



Govern the Action



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- Allow or Not Allow action
 - There is no unfair or cheating
 - There is only allowable (legal/let it happen) and not allowable (illegal/try to correct it)
 - There are no penalties--even Touch Penalties are really just loss of opportunities
 - No do-overs for allowable action
 - Remind the team if something isn't allowable
 - Things to know
 - Legal Start, In/Out, Cargo, Touch—robot vs. cargo
 - How to wash hands

Govern the Action

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- Determine where objects are kept after they are moved
 - Loss of contact: stay where it is
 - Robot touched
 - Cargo items coming from base return to base
 - Cargo items encountered out of base are taken out of play
 - Active robot makes changes -- keep them
 - Robot Damage
 - No stray objects or “please move it out of the way”



Govern the Action



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- Make Judgment Calls
 - Take the wording at face value
 - Give Benefit of the Doubt
 - If you have to measure, then the team gets it
 - Talk it over with the Head Referee
 - Focus on Updates , Rules, Missions
 - Fairness is Job #1, but not Goal #1



Gracious Professionalism



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- Gracious Professionals compete hard against PROBLEMS, while treating PEOPLE with respect and kindness - people from their own team as well people from other teams
 - Gracious Professionals build onto other people's ideas instead of resisting or defeating them



Record Performance



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- Scores are determined by the condition of the field at the instant the match is over
 - Nobody touches the field until you are ready
 - Stop robot, maybe retrieve pieces
 - Review the field with one or two team members; get agreement; send info to Scorer
 - Focus on Missions, Rulings
 - Referees know the rules, not the scores....

Body Forward Robot Game





Robot Game Rules



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- The FLL Robot Game is played by an autonomous robot. Focus on clean start.
 - Know match start procedure, signal for end of match, how to deliver scoresheets
 - Be quick but not hasty in scoring



Field Setup



- Mat is flush against south wall (long edge)
- Mat is centered east-west (short edges)
- Lots of movable pieces: farm animals, bacteria and viruses, poison, groceries, meat and fish, harvester and corn, pickup, loops, rats
- Reset of timer, thermometer, contamination risks, etc.

Missions

- MISSION: POLLUTION REVERSAL
 - SCORING CONDITION(S): Balls touching the mat are worth 4 POINTS EACH.

Touch

- MISSION: CORN HARVEST
 - SCORING CONDITION(S): Get points for one of these only:



- ANY piece of corn in Base is worth 9 POINTS (additional pieces do not add to your score).
- ANY piece of corn touching the mat is worth 5 POINTS (additional pieces do not add to your score).

Touch

Missions

- MISSION: FISHING

- SCORING CONDITION(S): Big fish in Base are worth 3 POINTS EACH, if the baby fish is still touching its mark.

touch

- MISSION: PIZZA AND ICE CREAM

- SCORING CONDITION(S): Pizza and ice cream in Base are worth 7 POINTS EACH.

in

- MISSION: FARM FRESH PRODUCE

- SCORING CONDITION(S): The yellow farm truck in Base is worth 9 POINTS.

in

Missions

- MISSION: DISTANT TRAVEL

- SCORING CONDITION(S): The robot touching the east wall is worth 9 POINTS. Remember Rule 23.



- MISSION: COOKING TIME

- SCORING CONDITION(S): The white pointer in the red zone is worth 14 POINTS.



- MISSION: STORAGE TEMPERATURE

- SCORING CONDITION(S): The thermometer spindle clicked/dropped fully showing the low red temperature is worth 20 POINTS (the spindle needs to drop all the way).



Missions

- MISSION: PEST REMOVAL
 - SCORING CONDITION(S): Rats in your Base are worth 15 POINTS EACH (to you only).
- MISSION: REFRIGERATED GROUND TRANSPORT
 - SCORING CONDITION(S): Get points for one of these only...
 - The trailer in Base is worth 12 POINTS.
 - The trailer with meat inside, and no germs inside, with any of its wheels touching the port dock north of the white line is worth 20 POINTS, and 6 ADDITIONAL POINTS for each big fish inside. For fish points, the baby fish must still be touching its mark.



Missions

- MISSION: GROCERIES

- SCORING CONDITION(S): EACH grocery unit is worth 2 POINTS if the table is supporting all of its weight, and no weight other than grocery units (the flower centerpiece can be there too).

Support

only

- MISSION: DISINFECT

- SCORING CONDITION(S): Empty dispensers are worth
 - 12 POINTS EACH, if NO bacteria is touching the mat outside Base.
 - 7 POINTS EACH, if ANY bacteria is touching the mat outside Base.

Touch

Missions

- MISSION: HAND WASH/BACTERIAL

- SCORING CONDITION(S): Bacteria in or on the sink are worth 3 POINTS, only if all of these are true:

- All were in Base at some time prior to being in the sink.
- While between Base and the sink, each was the only one in motion.
- All equipment involved with each bacterium's trip to the sink was
 - completely in Base at the beginning of the trip.
 - completely out of Base at the end of the trip.
- The sink is supporting all the weight of every germ, and not supporting any weight except germs.
- Bacteria getting to the sink any other way are given back to the team in Base by the referee (the "ref").

in

out

motion

Support

only

Missions

- MISSION: HAND WASH/VIRAL
 - SCORING CONDITION(S): Get points for one of these only...
 - One to eight viral germs in the sink are worth exactly 6 POINTS only.
 - Nine or more viral germs in the sink are worth exactly 13 POINTS only.



- MISSION: GOOD BACTERIA
 - SCORING CONDITION(S): Yellow bacteria are worth 6 POINTS EACH in Base only.





Tethers and Extensions



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- For the robot to be in Base, the “main” robot has to cross into Base
 - Tethers and extensions don’t count