



2009

Q & A

29 - FIGURE AND ROBOT

No change. The original mission requirement for the figure to be "aboard" the robot was mysterious to many people. So QA12 was written and ruled the figure has to be part of the robot. Rule 11 says to be part of the robot, an object must not fall off when the robot is turned over and shaken. That means the situations in the pictures near the mission text no longer score. Those of you who are confused by this are referred to Rule 33. QA12 applies.

28 - LEGO RUBBER BANDS

Yes, the robber bands/belts that came in your kit are allowable LEGO elements. You'll see them in a variety of colors including red, blue, yellow, and white. Thinner black rubber bands of various sizes are also a common allowable LEGO element.

27 - SOME ALLOWABLE STRATEGIES

With tournaments starting soon, it is time for me to share with all teams and referees, confirmation that the following stuff is allowed and/or scorable (there are no new interpretations here - all this comes from a solid knowledge of the missions and rules):

- The robot itself can count as a "transport device of your own design."
- Sensor walls can count as upright anywhere, including Base, and off the edges of the mat.
- Warning beacons in Base can be stood up by hand any time and count as upright there.
- Sitting/standing could be with respect to the vehicle OR the horizon. Either is okay.
- A robot penetrating Base from the north should be treated no differently than one arriving from the east. As soon as it reaches, it can be picked up and taken into Base along with its cargo (if the robot and its attachments otherwise live up to the provisions in QA10 - all features, including the SIZE/LENGTH of the robot need to have an actual function other than being long and reaching Base).

26 - MORE FIELD DAMAGE

QA22 was not a licence for you to trash the field. Obviously intentional field damage is never allowed. Where QA22 says you can expect a Benefit-Of-The-Doubt call, be sure you're familiar with the last part of Rule 32. There has to be at least be some DOUBT - If your robot has just broken or peeled up a yellow wall, for example: If the referee is SURE your strategy was one you knew could regularly break a properly prepared wall, and you either designed it that way or did nothing about it, you'll get this rare but serious

"intentional field damage" call. The robot will be interrupted and need to restart, all field changes will be undone, and you could lose a beacon. If you're tempted to either ask about or try to defend your particular wall-wrecking strategy, you should probably skip that step and focus on the robot.

25 - SETUP CALIBRATION

Calibration of light sensors is allowed as part of your setup routine, and it's understood that this needs to be done outside Base. Don't go any farther out of Base than you need to, and don't touch anything but your robot.

24 - BROKEN LOOPS

Regarding benefit-of-the-doubt calls for broken loops (as provided in QA22) - At the south wall, the referee needs to see a LIFTING attempt in order to doubt the loop or its setup. When a loop breaks after a tried/failed lift attempt, if the robot can get part of it to Base, it will score. Pulling on it sideways, back & forth, etc., until it snaps will be seen as intentional field damage, and any portion that reaches Base will be taken off the field (no score).

23 - LOOP BONUSES

The Missions page tells you that the gray loop bonus is independent from the red loop bonus. This means they have nothing to do with each other. This does not mean you can only earn one. You can earn both.

22 - ROBOT AFTER FIELD DAMAGE

Under Rule 27, the referee is supposed to restore the field to the condition it was in right before the damage. That would (unrealistically) include the robot. Unlike other objects in the field, the robot often continues moving, and may even make new changes before the referee gets to the scene. So these rulings are needed, mostly for referees:

---If the robot damages an access marker while driving over it or getting stuck on it, the team must immediately interrupt the robot, bring it to Base, and lose an upright beacon, if there is one available at that time. Any changes made by the robot after the damage will also be "undone."

---If the robot damages an access marker and either backs or turns successfully away from it, the referee will decide if the damage was obviously intentional.

*If the damage was obviously intentional, the robot will be interrupted as described above.

*If the damage had any chance of being accidental, or due to a poor Dual Lock connection, the ref will simply fix the damage, and the robot will not be interrupted.

---Loops and yellow guide walls are known to be fragile, and damage to these will always draw a "benefit of the doubt" call (robot won't be interrupted unless the team wants

it). BUT...Don't count on them breaking - tournament organizers have permission to glue them.

---I'm officially not worried about the remaining models.

21 - STRAY OBJECT SCOPE

The scope of objects that could become stray includes loose, valueless objects (such as the black pillars) as well as loose valuable objects and strategic objects. However, if a Dual-Locked object gets separated from the mat, that's considered "Field Damage" and the referee will restore it (Rule 27).

20 - NO DUAL LOCK ON ROBOT

Where the Missions tell you "any constraint system is okay," for your crash-test figure aboard your robot, that doesn't mean you can ignore the Parts rule (Rule #2). "Everything you compete with must be made of LEGO elements..." (Dual Lock is not allowed).

19 - TIE-BREAKING

Sorry for rewording this again! In possible/rare cases this year when it's important to break a tie, but the usual tie-breaking comparisons are insufficient, some tournaments may pick a method using stopwatches, or they might hold head-to-head elimination matches. Still others may be able to give out multiple Performance Awards. These and other fair options are possible as decided locally by the people running each event.

18 - OBJECTS AT REST

Objects about to become "stray" (removable) are not actually stray until they come to rest. For example, the truck may NOT be interrupted by hand while it's moving.

17 - STRAY OBJECT EXCEPTIONS - 2

Since sensor walls could score while "upright" as well as "not upright," they could never be removed as stray objects under the original Rule 25. Yet teams are still writing in, wishing to have them removed. So this exception is being given: If a sensor wall has been moved, you may declare it stray, but once any wall is removed from the field, the referee will record the end-of-match condition of all walls to be "only one wall upright," no matter what the actual condition of the walls is. This reduces the max possible overall score you can get for walls to 10 points, so be sure the trade-off is worth it. This wording replaces previous wording from QA7.

16 - ROBOT CAN'T TOUCH MAT

For end-of-match options where the robot's drive wheels are touching yellow or red bridge decking, the robot must not be touching the mat.

15 - SEPARATED QUICKLY

Please be sure that anything you add to mission models can be removed in about 15 seconds when the ref gives the okay after the match.

14 - REWARDS

The bridge is the most exciting and challenging model for climbing in the history of FLL. It was designed for pure risk-takers and fun-seekers. But if I valued it for what it's worth, point-chasers would attempt it as well. To see just how many teams would try the bridge without an obvious point-incentive, I assigned the same or less points for it than the target option.

13 - DRIVE WHEEL(S) DEFINED

Drive wheels/treads are those that would continue to move even after you pick your robot up.

12 - CRASH-TEST FIGURE

The entire figure must be part of your robot (see Rule 11) from buzzer to buzzer. Rule 16 allows you to place/load the figure aboard the robot before the start. The figure can touch the mat, but it has to stay intact.

11 - QA11 WAS NOT NEEDED

10 - EXTENDING TO BASE IS NOT REACHING BASE

The 5th part of Rule 17 was offered as a friendly relief for robots which were engineered to return to Base, but needed a break upon entering, due to kid excitement or a bad angle. But in the face of growing over-interpretation of that rule change, you are informed here that the term "reaches Base" as used in Rules 17 and 30 shall only apply at the completion of an actual/obvious trip to Base. Extensions which drop, uncoil, shoot, telescope, etc., for the obvious purpose of avoiding the penalty for truly failing or not even trying to engineer a trip to Base will be treated like tethers, and not considered part of the robot.

9 - PARKED

Where the robot is required to be PARKED at the end of the match, it must be permanently stopped by the time the end-of-match signal starts.

8 - ADDING TO MISSION MODELS

Your hands can only operate in Base to add pieces to models. 2009 Rule Change A does not give you any new freedom to touch models outside Base. That would violate Rules 17 and 27.

7 - STRAY OBJECT EXCEPTIONS - 1

Exception to the third bullet in Rule 25: The truck when not in contact with the red beam may be considered stray. The red beam with no truck will still be worth points.

6 - FIFTH WALL

The wall on top of the columns is not upright. In fact, it's as far from upright as a wall can get. But that wall is still a wall, and at the end of the match, the referee will either record it as upright, or not upright.

5 - TETHER ANCHOR

Rule 23 applies whether or not there happens to be an anchor at the end of the tether.

4 - DRIVE WHEEL(S)

Where the plural form of "wheels or treads" causes you confusion, at least one wheel or tread will work. Re-re-stated: One or more will work.

3 - COLOR SENSOR

Since the "Color Sensor" contained in commercially available LEGO sets does not appear on the list of allowable electrical parts in Rule 2, it's not allowed, even if you were hoping to use it as a light sensor.

2 - YELLOW "GUIDE" WALL PLACEMENT

We are seeing up to 1/4" (6mm) shortness in production mat length east/west when measured from mat center. Be aware of this while designing and programming. Also, this causes the yellow "Guide Wall" models to sometimes appear too long and not fit on their mat markings. Our consistent response to this shall be to fit the non-elbow end of each guide wall into the mark, and accept any imperfection at the elbow end. North/South dimensions are okay.

1 - STUCK LOOPS

The loops on axles on the south-most wall should be placed there gently and not pressed on.