



NATURE'S FURYSM – Robot Game Updates

39 – STRADDLING COLORS

When an unbroken person, water bottle, or pet model meets the Rule 37 definition of being “in” two scoring regions at once:

If Yellow is one of the regions, the object counts in Yellow only.

If Red is one of the regions, the object counts in Red only.

38 - GRAY SEGMENT STATUS

Gray segments are not worth points in Yellow. For the Construction Relocation mission, it's the green region with no gray segments in it that's worth points - not the gray segments themselves. This means that gray segments touching the runway at the end of the match do ruin the Runway mission.

37 - HOOK AXLE

The hook grabs bare axle - Note that there is NO bushing in the center of the axle where the hook grabs!



36 - WATER BOTTLE STATUS

Water bottles don't score as units of "Supplies & Equipment."

35 - BASE IS NOT A SCORING REGION

Scoring Regions are shown and labeled at the bottom of Page 13, and Base isn't on that list. Things can be brought to Base and sent back out, but they're not worth points in Base.

34 - TOWER SETUP DETAILS

Please observe the 56-1/2" dimension for locating the plane tower - and don't bother trying to move it to make the cord look perfectly aligned with mat features.

33 - STRANDED OFF ROLLERS

This is an exception to Rule 33:

When the robot has knocked the plane's rollers off the cord AND the plane has not reached a scoring region, AND not hit anything, the referee will push the plane along... How far? Until just before it either reaches yellow, or something that would have definitely stopped it, whichever comes first. The Cargo

Plane mission is then marked scoreless.

32 - CORD STAYS ON FIELD

The cord is like any other fixed mission model on the field - it doesn't get taken down.

31 – ROOF DEBRIS CHAOS

The referee depends on the final locations of the penalty roof debris pieces as an accounting system. Therefore: If the robot moves a roof debris piece into or out of Lt Blue, the referee will shift it back over the Lt Blue line in the direction it came from.

30 – OTHER BRANCHES DOWN

If tree branches other than the east one break or fall off, this will not affect your score unless the referee is convinced it happened by strategic design.

29 - LOOP MODELS

Objects in loops *must stay on their loop structures.

Rule 14: You can't take models apart.

Rule 34: Breaking models can cause point loss.

Update 25: Leniency if it's an obvious accident.

28 – OBSTACLE EXCEPTION APPLICATION

The touch-penalty exception shall apply even when the robot successfully crosses the last obstacle, and even if the robot has made a delivery into RED as part of an obstacle-crossing trip. It shall not apply any time the referee believes the robot has exited the obstacle sequence northward AND under control.

27 – SOUTH OF OBSTACLES

As long as the robot doesn't touch the field north of the northern zone lines, its path is score-worthy. It can use the mat south of the obstacles and it may even run along the top of the wall. Wall teams: You are reminded that wall heights can range high and low as described in the Field Setup pages.

26 – SUPPLIES IN RED ON ROBOT / IN CONTAINER

Q: Can supplies/people/pets/water count in a scoring zone if they're on the robot or in a container and not touching the mat?

A: Please see Rules 31, 37, and 38.

Rule 31: To determine if an object is "in" a scoring zone, the referee will look at:

- 1) the object.
- 2) the mat.

If the object crosses the line, even *barely, it's "in." The presence or absence of the robot or a container is irrelevant. Practical example: If the FRONT of your robot is in RED but the cargo is at the BACK of the robot, the cargo doesn't score. The picture at the bottom of Page 23 applies anywhere.

37 & 38: When "in" is the requirement (as with these objects), touching the mat is not needed.

*(Exception: For the Obstacles mission, barely isn't good enough.)

25 – BROKEN SCORING OBJECTS

A broken object can score unless there is no question the breakage was intentional, but it can only be worth points in one place – the lesser if a choice is needed.

24 – POINTER VALUE

The pictures of pointer value examples are correct. Each counts as LT GREEN. Your score is the last color the pointer obviously/definitely reached. You get benefit of the doubt if the white piece has reached and the pointy end has not. And as usual, you get benefit of the doubt when the ref “can’t tell for sure.”

23 – SIGN HOLDING

Mission models can’t be used to hold the sign in place. True, they’re not strategic objects, so the 2nd constraint isn’t a problem, but they are something other than the model’s own friction, so the situation fails the 1st constraint.

22 – POINTER MODEL IS CENTERED EAST-WEST

The field instructions say this model is at the “center of a competition setup,” which means centered by any measure, including east-west.

21 – CALCULATING ROOF PENALTIES

You can get up to eight sprawl and/or touch penalties, as represented by the roof debris on the mat. The Missions page is unclear on the following fact: Here is the cost for penalty accumulation: 1=10, 2=20, 3=30, 4=40, 5=53, 6=66, 7=79, 8=92. Sorry for the confusion. This far into the season I would normally be unable to make such a serious correction, but I trust no one was developing a penalty-based strategy.

20 – TSUNAMI WAVES DON’T COUNT AS WATER

The only models that count as water with people are the little water bottles. The tsunami cylinders don’t.

19 – BROKEN OBSTACLES

Obviously the "obstacle" models are fragile. Because the breakage is due to their design, if they break you will NOT get a call of "model damage" at tournaments. At the same time, the damage is predictable (you've been dealing with it all season), so it is considered a variable for you to expect and consider while you design. Also please understand that the models are repaired by humans... If you see that any model isn't built correctly, Rule 19 gives you the ability and responsibility to ask that it be corrected before the match starts.

18 – DARK BLUE WATER

If your eastbound robot has the water from the DK BLUE zone and you pick your robot up while it's crossing an obstacle or otherwise seems to be attempting the Obsacles mission, you can keep the water. Cargo seizure by the referee is described as a penalty in Rule 31, and the mission does say "without penalty."

17 – BRANCH LOWER THAN LINES

The entire branch including tan, green, black and red pieces must be lower than the lowest molecule of the black electric lines.

16 – N/A

15 – SIGN FRICTION

Since the usual friction keeping the sign up comes from the slider against the rest of the model (and not really the mat), please interpret the friction text in the evacuation sign mission to mean that the sign can only be held up by the slider's friction with the mat or the other beams of the sign model.

14 – ARRIVAL END FLIP

If you have a "shorter" border wall and you have not already followed the instructions on how to rebuild the arrival model... Don't bother. All you need to do is flip it, spin the stopper arm around, and rewind the string so it's feeding from the bottom. This is what a series of late nights can do to a person. Luckily the final picture was correct, but the path to it was hysterically inefficient!

13 – PLANE LENIENCY AND OBSTRUCTION

*This update does not apply when the robot has knocked the plane's rollers off the cord.

If the plane departs and hits nothing, it automatically scores as reaching LT BLUE. If that plane stops short of LT BLUE, the referee pushes it the rest of the way to that zone asap.

If the plane departs and hits only "a little bit" of stuff on the runway, it will automatically score as reaching YELLOW. If that plane stops short of YELLOW, the referee pushes it the rest of the way to that zone asap.

If the plane departs and hits "a lot" of stuff on the runway, it stays and scores where it stops unless the robot pushes it to a zone.

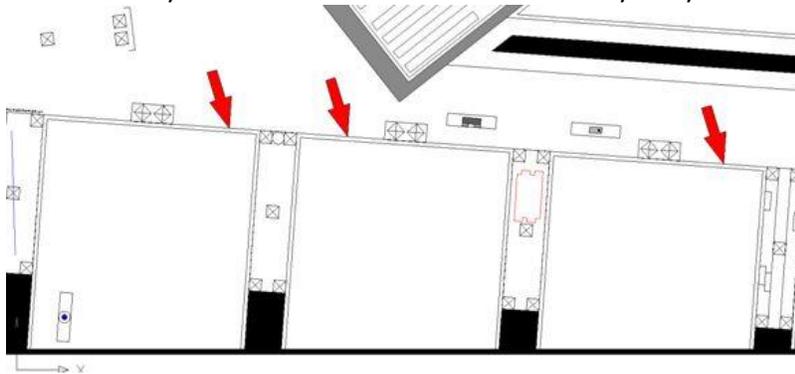
"A Lot" of stuff is defined in the referee's judgment as an amount that would DEFINITELY have stopped any plane (even a fast-rolling one) from scoring at all. Anything less is "a little bit."

12 – CRUMBLING WATER

The construction optimization between the river obstacle's prototype stage and production stage weakened it – a lot. *Tournaments are asked to beef up the underside of the river model with extra Dual Lock as needed to stop the model from crumbling. Do not use LEGO plates, as they would change the height of the model. *Teams are also encouraged to make this fix, so that you're practicing under tournament conditions.

11 - CROSSING OBSTACLES

Lenient clarification: When crossing obstacles, the robot may have parts that extend (in the air) over their north ends, but any contact with the field has to stay south of the northern ends of the obstacles the entire way. All contact with the field must always stay south of this line:



10 – ELECTRIC LINES IN PLACE

There is a line of text missing, which is not a hidden freedom, but rather a mistake, which will ruin this mission if left unfixed. Since this is only Day 1 into the season, I must fix this, with apologies: To score for tree branch mission, the electric lines must be in their setup place, and in their setup position. It's okay if they're nudged out of place a little, but from a distance they need to look like they're still set the way they were when the match started.

9 - FOUR MOTORS

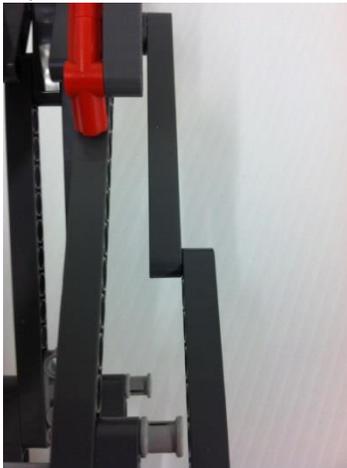
A fourth motor is definitely allowed, but the rule reason is poorly worded. The reason is because EV3 set has a "new" (type of) motor.

8 – PEOPLE WITH WATER

"People with at least one water = 15 points each" means the more people who have water, the more points you get. You get 15 points per PERSON with [any amount of] water. Examples: 1P+1W=15, 1P+2W=15, 3P+2W=45

7 – DEPARTURE TOWER MISSING INFO

If you have a "shorter" table, as described in the Field Setup section of the Challenge, you lengthen the plane's departure tower as described, but you also need to lengthen the pull-rod that links the red lever to the plane's release claw. Easy: To do this, take that rod apart at its middle joint, and put it back together two holes longer. The new connection will only require one black pin (at the far end of each segment). Don't reinstall the other pin. The new pivot in the rod is okay, since its job is to pull, like a rope. The picture to the right shows the lengthened rod. Click photo to enlarge.



6 – PAGE 9 PICS

The bread goes in the truck. It's shown correctly, but not mentioned. Also, the lady and child are placed as shown, but the words "lady" and "child" are under the wrong pics.

5 – NO ROBOCAM

Sorry, the rule reference to a change "4e" about a camera being allowed is not valid. That change had to be pulled away in a late draft.

4 – SAFE PLACE EXTENSION

Text missing from the Safe Place mission, added here to go along with the picture on the right: If the only part of the robot in the RED scoring zone at the end of the match is obviously designed/added to the robot purely for extension, the condition doesn't score.

3 – RUNWAY CONFLICT

The following things can be touching the runway at the end of the match but will not cause the loss of your clear Runway points:

- tsunami water
- the plane

- objects in Yellow or Lt Blue, even barely, which are worth points because they're in Yellow or Lt Blue.
- roof debris the referee has placed in Lt Blue
- the robot

2 – N/A

1 – BORDER WALL HEIGHT

As described on the Field Setup page, there is a range of legal heights for the FLL table border walls. Be sure you understand how different border wall heights affect the progress mission and the cargo plane mission. Specifically, the levers for those missions could be a little higher or a little lower than the ones on your practice table. Design with this in mind.