ROBOFEST 2016 Game RoboGolf – Updates & FAQs
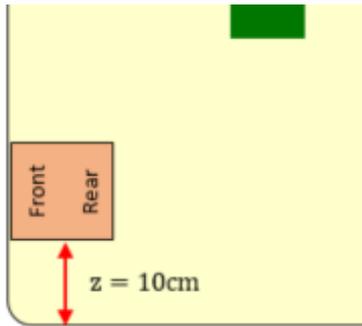
Last Updated 4-4-2016

Updates of the Rules
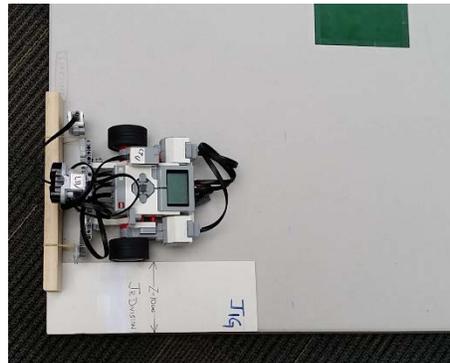
- The maximum value of *g1 ~ g4* (gap between greens and table edge) is 4.5cm, not 2.3cm
- Greens #1-3 will each be taped along their entire leading edge (edge opposite the hole locations) as well as the two remaining corners. Green #4 will be taped along the entire length of all four edges.
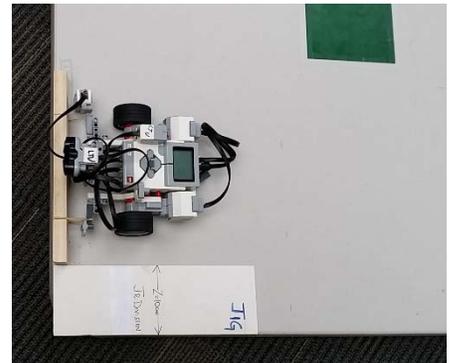
Clarifications

- Teams are ~~may~~ NOT ~~be~~ allowed to charge their robots during impound.
- Disrupted balls that go ~~went~~ into hole-slots do not get any points
- Undisrupted balls outside their own green are defined as those that have been moved off their green as a result of direct physical contact with any part of the robot or another ball.
- Robot stating location and orientation:

(a) Unveiled   (b) Wrong   (c) Correct

Additional FAQs

Q15. Does it matter which ball/green the robot goes to first? No. Robots may go ball/green area in any order.

Q16. How do we print/prepare the green areas? When printing Green Area PDF, be sure to select "Actual Size" under Page Sizing & Handling to ensure proper dimensions. Please trim around the green area and discard the white.

Q17. Green area is not in pure green color? Since over 30% teams are using robot kits without color sensors, we made the green color as dark green (in RGB color space, R: 0, G: 120, B: 0).

Q18. Can you show some other examples of the ball location in terms of n/m? See www.robofest.net/2016/n_m_ex.pdf.

Q19. Can we add another wooden putter that will not be used for putting? No, since it will be difficult to Judge.

Q20. Rule B.5 says that the robot body must be at rest (stopped) while putting. How long the robot needs to be at rest? The Judge must observe the robot to come to a complete stop.

Q21. Can the putter be pulled back in a locked position by the actuator and then use rubber bands to propel it forward? Yes. However, the actuator needs to be used to trigger the putter.

Q22. Can we use gravity to provide the force to move the putter and strike the ball? Yes. The actuator also needs to be used to set/release the putter.

Q23. Can sensors or other miscellaneous parts/objects be attached to the putter, as long as the wood portion of the putter maintains the proper dimensions? YES. But the contact area to hit the ball must be wood. See section H.

Q24. Can robot's starting location be between fourth green area and end of table (towards opposite to flag pole side)? Yes

Q25. Will robot orientation be parallel to edge/side of table? As in the rules, the starting location and the orientation of the robot is unknown. At Michigan Championship and World Championship, it may or may not be parallel to the edge/side of the table.

Q26. The ball was moved not intentionally, because the table was shaking from robot motion or gravity. Is it a disruption? Yes. Teams must design the robot to move softly and gently.

Q27. Can we intentionally blow air to move balls? No. Balls should be moved by putting only.

Q28. If a ball is hit legally, then the moving ball hits another ball on the table before it comes to rest in one of the holes, will the first ball be counted as valid or invalid? Will the second ball at rest that was hit be considered valid or invalid? If the second ball moves and falls into the hole, will it be counted as a valid ball in the hole? Judges are concerned only when the ball goes into a hole. See the following cases:

1) A ball is putted legally and hits another ball. If either or both balls go into the hole, they are valid/legal.

2) A ball is putted illegally and hits another ball. If the first ball goes into the hole, it is not valid. If the second ball goes into the hole, it is valid/legal.

Q29. If a ball is legally hit (or touched) by the putter and then it touches another part of the robot or putter, is it valid? **No, the ball may only be hit/struck/touched once by the putter (even if the ball is not moved by the initial contact).**

Q30. How do we determine the starting location of the robot? **The edges of the robot are defined as the widest points of the robot as viewed from above including any overhanging parts. The dimension "z" will be measured from the edge of the table to the edge of the robot. No part of the robot (or putter) is allowed to overhang the table edge or the specified location dimension at the start of the round.**

Q31. What is a "push" as opposed to a "hit" or a "strike"? **Anytime a ball is "hit" or "struck" by the motor-actuated movement of the putter, it is legal as long as it is only a single "strike" -   no double hits allowed. A "push" is defined as any movement of the ball which is a result of physical contact with the robot body or the non-actuated putter.**