## List Updates in (January 2018)

- Page 1, under Beginner Division, item 7 was added
- Page 2, under Advanced Division, item 4 was added
- Page 2, under Advanced Division, item 9 was added
- Page 2, under Advanced Division, item 10 was added
- Page 3, figure was added
- Page 6, the link for Flat Washer is updated
- Page 6, Contact person for questions about the wireless communication was added
- Page 7, a figure about the correct colors for ping-pong balls was added
- Page 8, information on board color was added
- Page 13, plywood cut instruction was updated.

## Q and A:

At most two teams can participate the beginner group per institution and at most one team can participate the advanced group per institution. So, I want to ask that what does the "institution" mean a college or a university?

We limited the number of teams due to time constraints that we have at the competition. Nonetheless, there is no limit to the number students in each team. If more students are interested from your institution, they can consolidate them into two teams. "Institution" means the university as a whole, not just a college or department within the university.

Can the second robot start at the diametrically opposite corner of the board? That would allow the two to act as backups of each other

In the advance competition, the robot(s) can start from any corner on the board. If a team has two robots, they should start from any two different corners of the board. In the beginner competition, the robot should start from the designated Start and End positions.

In the plywood cut instructions on page 11 of the Robotics rules document, it does not show an allowance for the kerf width of the saw blade.

In the updated version (January 2018), the cut instruction was modified that includes the allowance for the kerf width of the saw blade

The drawing shows that the three interior vertical walls are attached with the 1.5x1.5x1.5 metal brackets. However, there are no brackets shown for the two vertical walls on the edge of the plywood bottom plate. How do you envision attaching those end walls?

In the drawing, we have anticipated a direct attachment to the board. However, any other attachment method that does not make an obstacle for the robot is acceptable.

Regarding the blue ball, which one is going to be used for the competition, darker or lighter colored ball?

Please use the darker blue color.

Would you kindly send a picture of the exact ping-pong balls that are to be used in the competition? We will release a new update this month and we will include the pictures of balls.

What are the colors of the board and the wooden rods where the ping-pong balls are to be attached to? The competition board, the vertical walls, and the Board Edges should be painted with white color using a standard matte interior paint, such as BEHR Premium Plus Ultra Medium Base Plate/Matte Interior Paint and Primer. The wooden rods should NOT be painted.

The rules limit the size of the robot to 12" x 12" x 12". Is this the same as last year where the robot must start and end in these dimension's but can expand beyond them during the competition. For example, an arm that would extend from the robot to retrieve the ripe fruit. That is correct, the robot can extend beyond the 12" x 12" x 12" size limitation after start.

Will the dowels be painted white like the rest of the board? The dowels will not be painted. They should be in their original color.

Will the dowels be present only in the holes that have "fruit" on them or will there be dowels left in every hole regardless of the presence of fruit?

There will be only 24 dowels on the board for the 24 fruits. There will not be any dowels without a fruit (ping-pong ball)

The figure seems to imply that the dowel will be a single piece that goes through the board. Is this correct?

Yes, the dowels are removable, and they will be mounted on the vertical balls just before each round of competition for each team. There will not be any "double-sided" dowels with magnets on both ends.