

Big Table Top

(version: 20150412)

Robot Size limit	: 18 x 18 inches
Robot Weight Limit	: 5 pounds
Robot Control	: Autonomous
Game Duration	: 7 minutes
Arena	: 60 x 72 inches

Overview:

The field is setup with 5 empty soda cans wrapped in fluorescent orange duct tape randomly placed on top of a table. Robots must locate the cans and complete a series of objectives with them. The table top has no edge protection so robots must take measures to avoid falling off.

Objectives:

- 1) Knock a can off the table
- 2) Place a can in a box hung off the edge of the table at a specific location (see diagram)
- 3) Return a can to the starting location.
- 4) The whole can must be within the starting area
 - a) Touching the boundary but not extending beyond the boundary is considered "within"
- 5) Line 2 more cans up with the can in the starting location
 - a) The outer cans cannot be farther than 36 inches from each other
 - b) Cans must be at least 8 inches apart
 - c) A one inch wide yardstick must be able to lay across all 3 cans

Game Play:

- 1) Each competitor is allowed three runs.
- 2) A run starts when the robot leaves the starting area and ends when the four challenges are completed, the robot falls from the table or the time limit is reached.
- 3) The objectives can be executed in any order. Any of the available cans can be used for any challenge.
- 4) Robots should be designed to survive falling off a table

Scoring: (Max possible score of 5)

- 1 Point for each can in a completed objective
- In case of a tie, the judge will determine the winner by taking into consideration the robot build and the ingenuity of how the objectives were completed.

Judging:

The contest will have one or more judges. They will ensure the rules are followed and remove a robot from competition if the robot is operating in an unsafe manner. All judges' decisions are final.

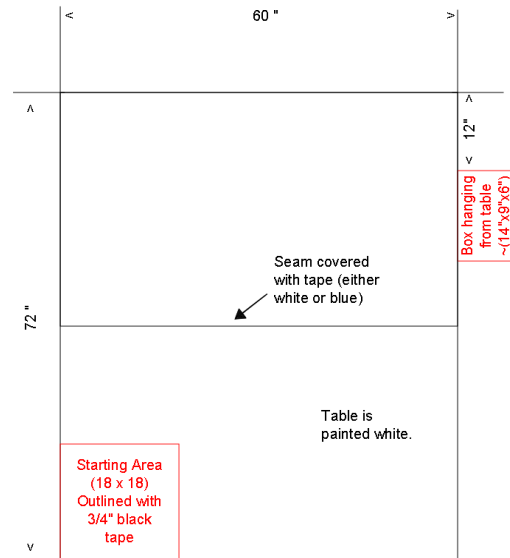


Table Top 2 Competition Table Layout

Course:

- 1) Dimensions: 60 x 72 inches
- 2) Table Material: 2 pieces of plywood painted white (~36 inches x 60 inches)
 - a) There is a seam that runs between the center of the narrow sides of the platform
 - b) This seam is covered by white or blue tape
- 3) Starting Area:
 - a) 18 x 18 inches
 - b) Marked by $\frac{3}{4}$ black electrical tape or black paint (outer edge of tape at 18")
 - c) Black tape is used to only outline edges of starting area that are not table edges
 - d) The black tape is part of the start area
- 4) Drop Box:
 - a) 14 x 9 x 6 inches (size of large shoe box)
 - b) Located at the opposite corner of the starting area
 - c) 12 inches from the end of the table
 - d) 14 inch side of box is along the 72 inch side of the table
 - e) See diagram for layout details

A practice Big Table Top will be available at DPRG's RBNO held every Tuesday before the competition.

Can Specifications:

- 1) Standard 12 ounce aluminum soda cans
- 2) Wrapped in 1 to 2 layers of fluorescent orange duct tape
 - a) Duck Brand Model #1265019 Neon Colored Duct Tape
 - b) Available at Walmart, Home Depot, Staples, and Amazon
- 3) Pull tabs may or may not be removed

Safety:

Since robots could sustain a 3 foot fall, it is recommended that robots weigh less than one pound. If a robot is deemed "unsafe" it will not be allowed to participate. Participants can use "leashes" (rope, string, etc. tied to robot) but their use would result in a 1 point penalty.

Acknowledgment:

This contest is a greatly modified version of a competition originated by the Home Brew Robotics Club and found on www.robotgames.net.