

ROBOLUTION 2017

LINE-FOLLOWER RACE

Rules:

1. One team can have maximum 6 members.
2. The number of rounds and event track will be announced 3 weeks before the competition.
3. Track details (angle, lengths) will be uploaded with the track.
4. Point distribution will be uploaded with the track.
5. In the time of race, only 1 member will be able to stay in the arena.
6. Points will be awarded only if the robot travels through the whole path of the checkpoint and crosses the checkpoint. **No checkpoint can be skipped.**
7. Touching the bot during runtime is a compulsory restart. Restart is a must in case of a line loss.
8. Max no of restarts: 5.
9. Max allowed voltage difference between any two points of the circuitry is 24V. Every bot must have a power switch/kill switch.
10. Max number of switches allowed is 2 (excluding power switch).

Bot specifications:

1. Line Followers must be self-contained, and not externally operated by wire or by remote radio control during the race. The robot must not be built from any sort of ready-made chassis.
2. Weight: Max 3 kg
3. Height: Max 25 cm
4. Length: Max 25 cm
5. Breadth: Max 25 cm

Arena Specifications:

1. Starting & Ending Box is 10*10 sq in.
2. Track will be on both ‘ **White on black** ’ and ‘ **Black on white** ’.
3. Track line will have a min breadth of **2.5cm** through the whole track.
4. 2nd round will have the wall portion.
5. Bridge angle will be **max 35°**.

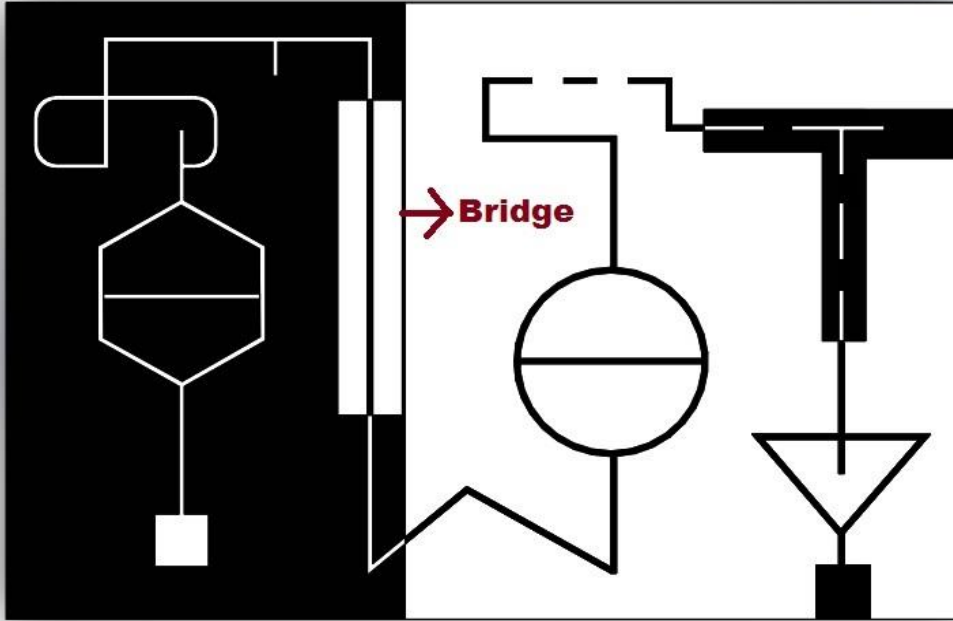
Arena:

The competition will be divided into two rounds. Track will be different in these rounds.

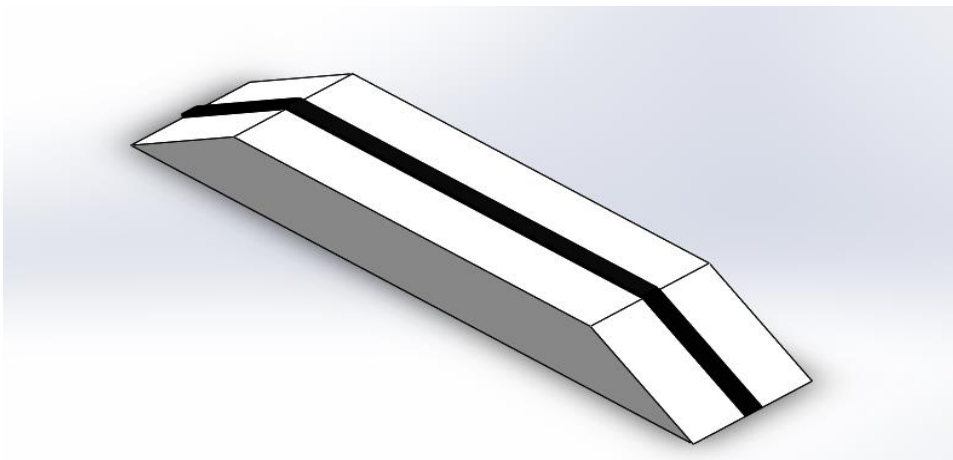
1st Round:

- Discontinuity between two lines will be **max 15 cm**.
- Extended portion will be **min 12 cm**.
- Angle will be **max 110 degrees, min 40 degrees**.

Picture:



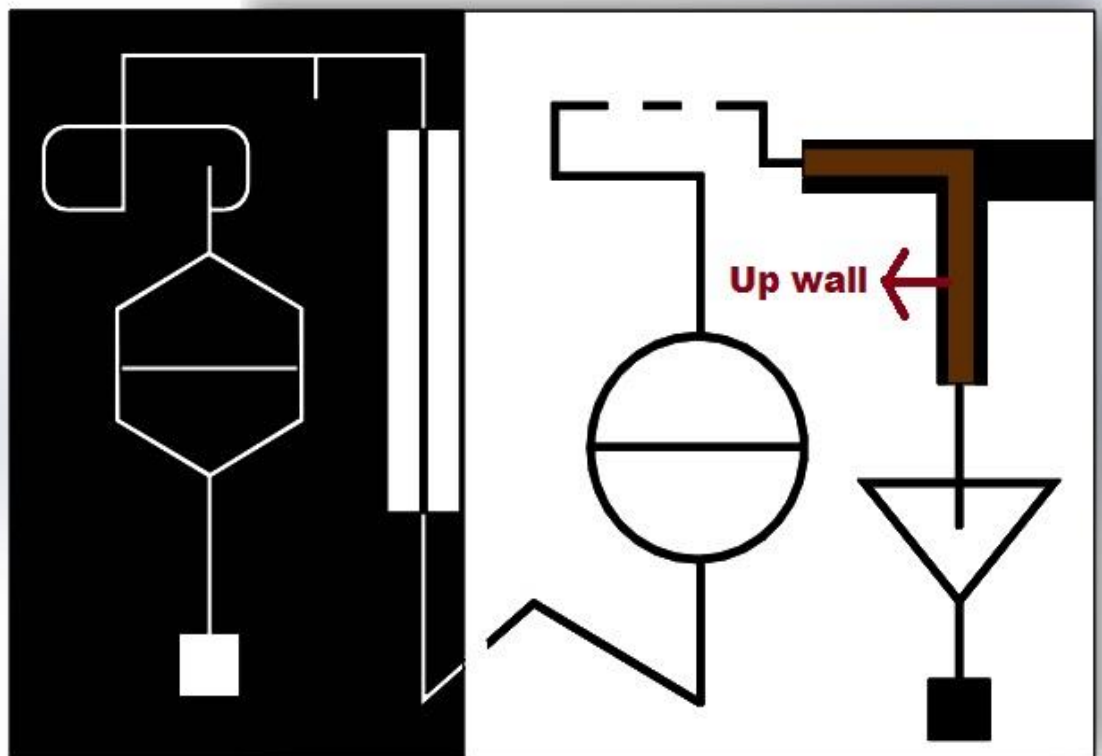
Bridge Pic:



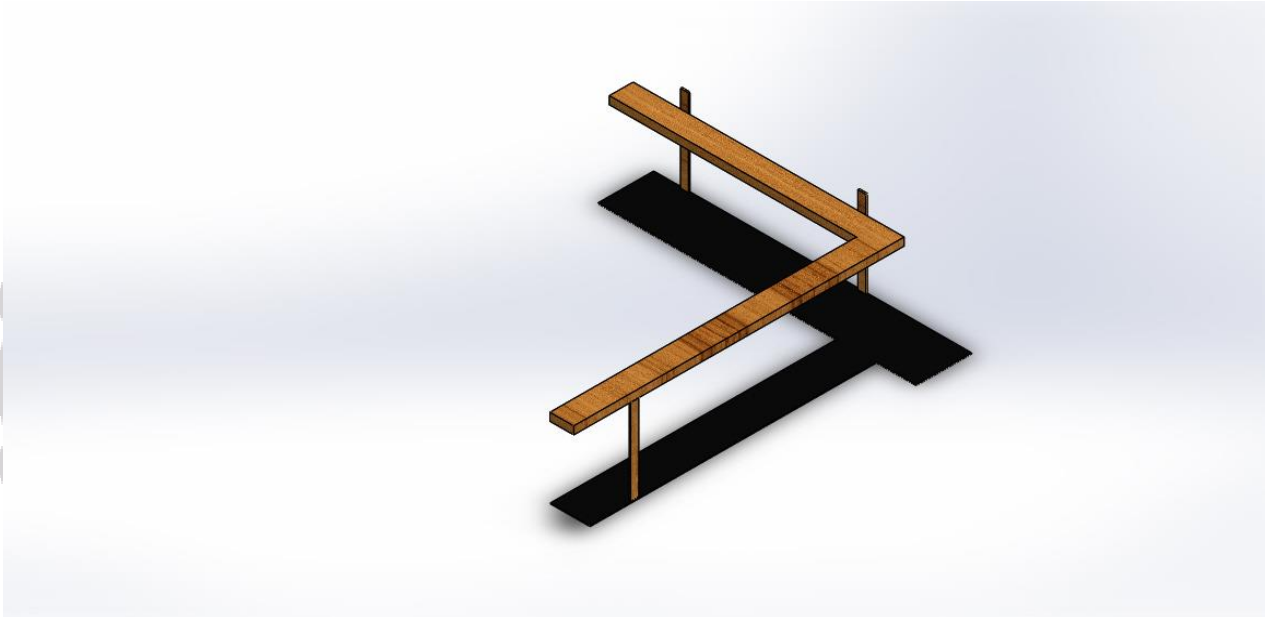
Final Round:

- This track will be almost similar to the 1st round track with a little bit difference.
- There will be a **UP WALL** portion having a **height of 30 ± 2 cm** from ground and a **width of 10 ± 2 cm**.
- There will be a discontinuity in the color switch portion with a distance of **max 10 cm**.

Picture:



Wall Pic:



ROBOTICS CLUB

Mark Distribution:

Content	Points
Checkpoint (6)	6*30=180
Touching the finishing point	50
Stopping at the finishing point	30
Time bonus	{300-(Total time to finish in seconds)} * Number of Checkpoints completed

NB:

1. The organizer's reserve the right to make changes to any of the above in the interest of fair play and sportsmanship, and to ensure that all competitors have an enjoyable competition.
2. In the event of ambiguity, the organizer's interpretation of any clauses of the rules shall prevail.

