

## Line/Wall Following

### General Rules:

- ▶ Each team can have a maximum of 5 participants.
- ▶ There is no restriction on batch for students. A team can have members from different batches.
- ▶ No damage should be made by a bot to the arena or to other team's bots during the match in any manner.
- ▶ Bots should not be disassembled until the results are declared.
- ▶ The organizers reserve the right to change the rules as they deem fit.
- ▶ When a team is called for match, they must report within five minutes.
- ▶ Judges decision will be final.
- ▶ During wall following, a line would be drawn at a distance of 400 mm from the wall. The bot must not cross this line at any cost. In case the bot crosses the line, then human intervention would be allowed and points would be cut for the same.
- ▶ The arena shown is just for reference.

### Event Structure:

An abstract submission by all participating teams will be required by **15<sup>th</sup> October 2017 11:59 pm**. The abstract should cover the following aspects:

- ▶ Team Name/ Team Leader's name/ Team Leader's contact information
- ▶ Introduction (approach to the problem statement) ~ 50 words
- ▶ Construction (Describe the anatomy of your robot by giving details about the mechanical and electrical components) ~ atleast 50 words
- ▶ Working Principle (Describe the working of your robot also describe about the control systems, algorithms used. Also include your INNOVATION ( if used ) i.e., how is your robot different from a conventional one) ~ atleast 50 words

Based on the abstract, successful teams will be invited to the final run, tentatively scheduled in the last weekend of October.

### Bot Specifications:

- ▶ During the whole event the bot must fit within a square of 250X250X250 (LxXxH). Dimensions in mm.
- ▶ The Robot must be stable and able to move on its own. A bot not fulfilling these criteria will be disqualified.
- ▶ The bots should be able to follow the line according to event specifications.
- ▶ The voltage difference between any two points on the bot must not exceed 24 volts.
- ▶ Teams are advised to use an on-board power supply. In case they are using external power supply they will be responsible for any problem created by entanglement of wires.
- ▶ Bot's code will be checked for hard coding before trail is allowed.



Winner will be chosen on the basis of the least time taken to traverse the arena.

Each team will be allowed maximum of 2 runs each with a cap limit of 5 minutes.

Points calculation =  $(5*60 - \text{time taken in seconds}) * K1 - (\text{number of human interventions}) * K2$   
 $K1 = 1; K2 = 20$

Note :- Changes will be highlighted on the website. You are suggested to keep checking the website regularly.

**Prizes:**

Will be declared on website shortly.

