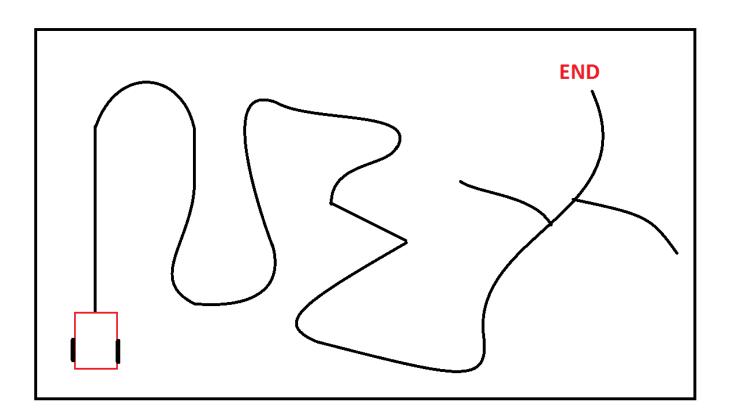
## **LINE FOLLOWER**

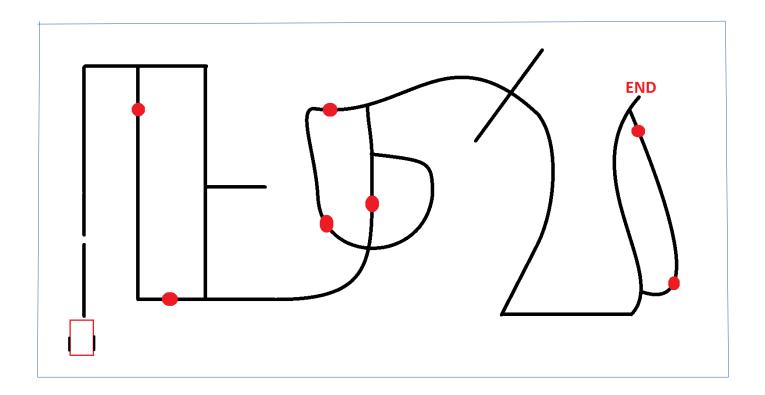
**AIM**: participants have to build an autonomous robot which can detect the black line on the white surface and complete the track in minimum time.

**ARENA:** sample track is given below.

**Round 1** 



#### Round 2



### **SPECIFICATION:**

The Robot must be strictly autonomous.

The width of the black or white line will be approximately 3 cm.

Dimensions of the Robot should be less than 25cm\*25cm.

The participants have to ensure that room lighting, photography, etc. does not affect the functioning of the sensors.

In case of tie, the design of the Robot may be considered.

If the none of the Robots finish the course, then the one which covered the longest distance in less time will be considered the winner.

The power supply should be of maximum 12 V.

#### **ROUNDS:**

#### Round 1:

In this round every team has to complete the track. The Robot which will take minimum time to complete the track will go to next round.

#### Round 2:

In this round bot should be able to detect the obstacles\* that are in between the paths.

In multiple paths, there will be obstacles on the other tracks except <u>main</u> <u>track</u>. Bot has to choose <u>main track</u> and complete it in minimum time.

(\*NOTE: Obstacle is a kind of wall in path.)

#### **RULES**:

The Robot has to follow the black line on white background and complete the track in least possible time.

Maximum 4 touches and 6 touches will be allowed for 1st and 2nd round respectively.

One restart will be allowed for each round.

If bot would not detect the obstacle, then it will be placed to previous check point and it will be counted as hand touch.

### **JUDGING:**

50 points will be given as bot crosses the check point.

30 points will be deducted per touch.

50 points will be deducted per restart.

20 points will be awarded as it chooses the right path.

10 points will be deducted if the bot clashes with the obstacle.

5 points will be deducted per minute.

#### **GENERAL RULES:**

Maximum Four Participants are allowed in a team.

Team members can be from different colleges.

If the machine remains immobile for respectable time then on the spot decision will be taken by the organizers.

The Judges' decision shall be considered as final and indisputable. Any team involved in any type of argument with the judges will be disqualified.

The organizers reserve the rights to disqualify any team indulging in any kind of misbehaviour.

The organizing team has the right to change any of the rules at any time.

The changes will be highlighted on website and conveyed to registered participants well in advance.

All the tracks will be shown at the time of competition.

Sample Track will be provided for practice.

# **Certificate policy:**

Top 3 teams will be awarded with certificate & Prize money.

## **CONTACT:**

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