

NIRMAN

THE FOURTH EDITION

LINE FOLLOWER

RULEBOOK

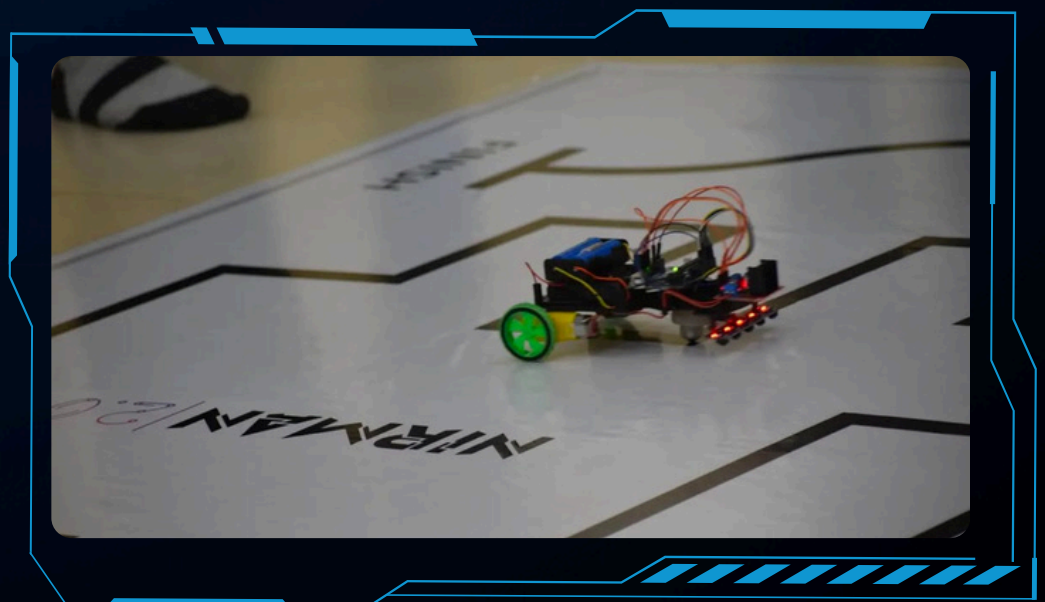
Silicon Innovation Promotion Cell (SIPC)
Silicon University, Bhubaneswar, Odisha, 751024

EVENT DESCRIPTION

No of Members in a Team: 2-3

Event Description:

The **Line follower** robot is a mobile machine that can detect and follow the line drawn on the floor. Generally, the path is predefined and can be either visible like a black line on a white surface with a high contrasted color or it can be invisible like a magnetic field. Therefore, this kind of Robot should sense the line with its Infrared Ray (IR) sensors that are installed under the robot. After that, the data is transmitted to the processor by specific transition buses. Hence, the processor is going to decide the proper commands and then it sends them to the driver and thus the path will be followed by the line follower robot.



ROBOT SPECIFICATIONS

1. The Robot must be strictly autonomous.
2. The width of the black or white line will be less than 3cm
3. Dimensions of the Robot should be less than 20cm*20cm*15cm (lxbxh)
4. The participants have to ensure that room lighting, photography, etc. does not affect the functioning of the sensors.
5. If none of the Robots finishes the course, then the one which covered the longest distance in less time will be considered the winner.
6. A power supply should be of maximum 12-15 V.

GENERAL RULES

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

- Maximum 3 touches will be allowed for each round. (Each touch make
5 sec penalty.)
- Maximum Three Participants are allowed in a team.
- If the machine remains immobile for respectable time then on the spot decision will be taken by the organizers.
- All the tracks will be shown at the time of competition.
- Winners will be decided based upon the scores with minimum no. of penalties made.
- In case of any tie, winners will be decided based on min, no. errors. The bot with minimum errors is the winner and if there are any ties further, type of bot is considered which is more efficient.
- Workshop bots are allowed but given less priority.

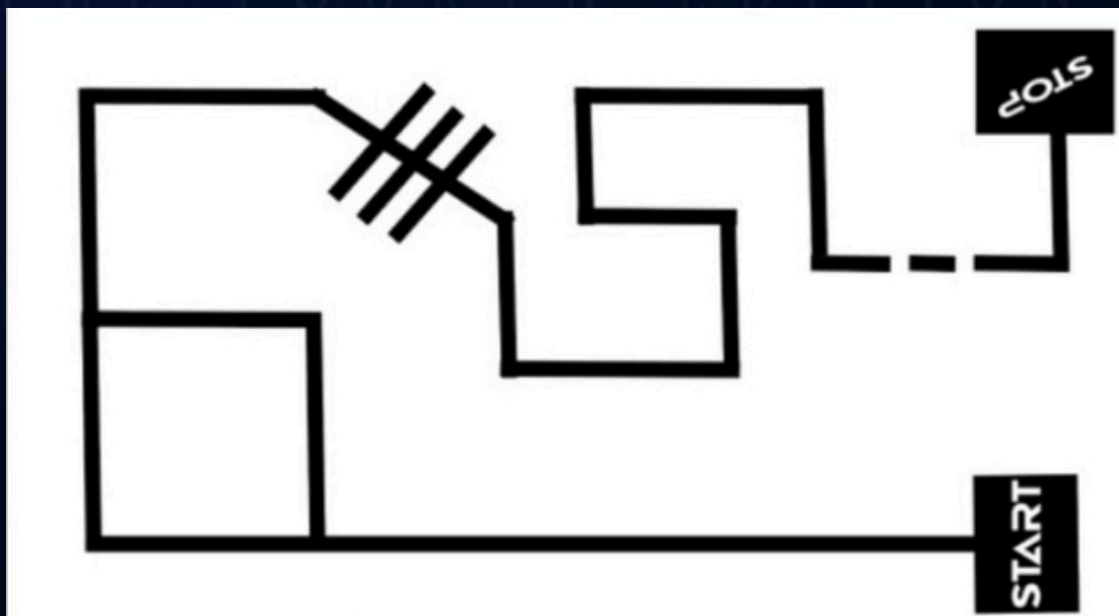
PROCEDURE

Event Plan:

Round 1: Round one consists of basic track. Here the members are shortlisted based on time and charted to second round 2

Round 2: This consists of complex circuit and also time taking. The team which completes tracing the track in the minimum time are considered as the winner.

Demo Track:



PRIZES

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3RD RS 3,000

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