

INTRA COLLEGE TECHFEST

PATHTRACKER

“Difficult road often leads to beautiful destination”

Problem Statement:

To build an autonomous line follower bot based on logic gates and capable of following a white path on black surface and detecting crossroads and walls.

General Rules:

- The maximum team size is four.
- The four participants should be from Techno India College/University.
- No person can be in two teams of the same event.
- Damaging the path will lead to immediate disqualification.
- Decision of Coordinators would be final.

Event Rules:

- The width of line would be 2.5cm. approx.
- There will be a total of 2 rounds.
- The maximum time allotted to complete the task is 4 minutes in the prelims and 5 minutes in the finals.
- A team can have maximum of three hand touch & one restart in 1st round and five hand touch & one restart in 2nd round.
- After every hand-touch, the bot will be placed on the line; the first hand touch will be free but further will lead to a penalty.

- If a team wants a restart, the bot will be placed at the starting point.
- The run shall start from a predefined starting point.
- The decision of the event coordinator(s) will be final and binding.
- In the first round the bot has to follow the line and detect the check points present on its way.
- In the final round the bot also has to detect the white walls present on sides. The walls will be approx. 15X15cms and at the distance of 12-15 cm from the line.

Round 1

In this round there is **no checkpoint**. Teams have to complete the track in minimum time.

Scoring:

1000 - [150 if restart (allowed once)] - 50*[No. of hand touch] - 2*[Time in seconds]

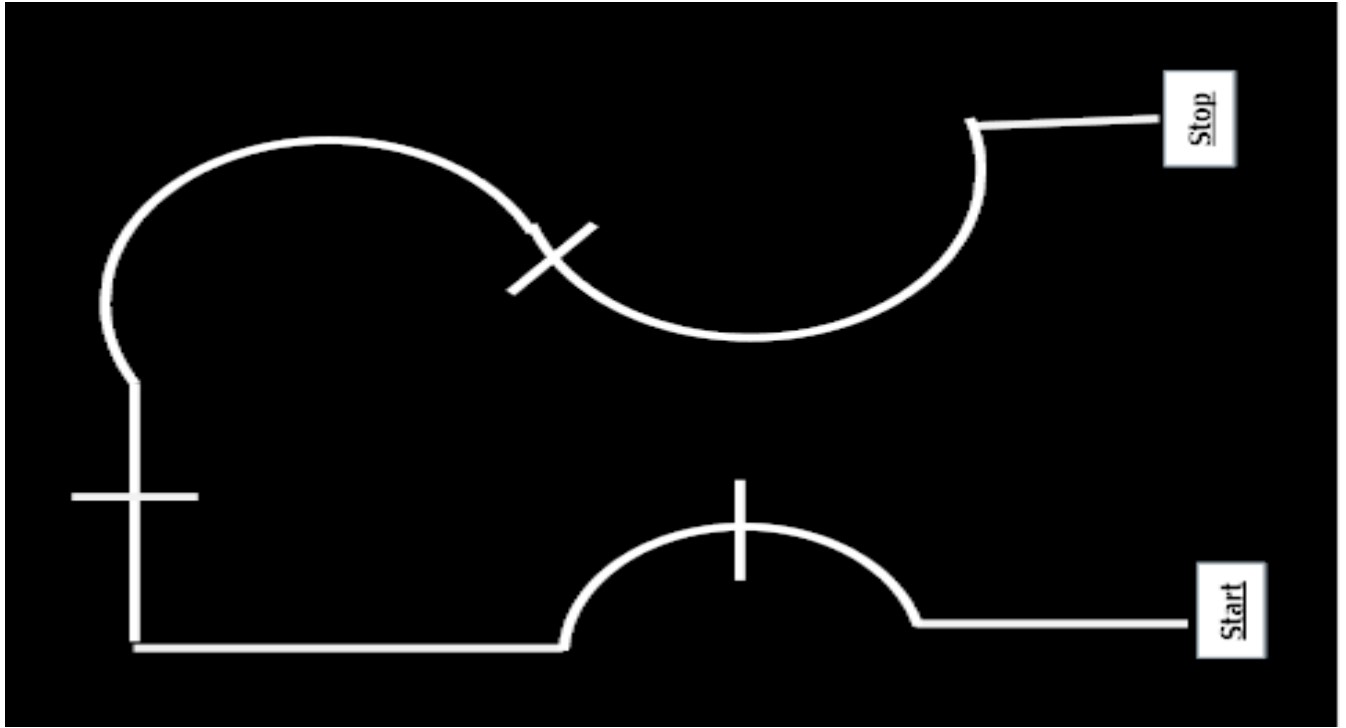
Round 2

In this round there is checkpoint. You have to complete the track with detecting each checkpoint. And stop at the end of the arena in minimum time.

Scoring:

1000 - [150 if restart (allowed once)] - 100*[No. of timeouts (allowed twice)] - 50*[No. of hand touch] + [50 for stop at end] - 2*[Time in seconds] + 50[checkpoints correctly detected]

Sample Schematic:



The Real arena may differ from this given sample.

EVENT COORDINATORS:

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