A DECADE OF IMAGINATION

ROADRUNNER

"I don't stop when I 'm tried, I stop when I'm done "

Problem Statement:

To build an autonomous line follower bot based on microcontroller which is 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 walls present on sides. The walls will be approx. 15X15cms and at the distance of 12-15 cm from the line.
- The bot has to stop at the finishing point.

Round 1

1. For this round the bots have to complete the arena in minimum time.
2. In this round only check points are present (no walls)

Scoring:

1000 - [**150** if restart] - **100***[No. of timeouts] - **50***[No. of hand touch] - **2***[Time in seconds] + **50***[checkpoints correctly detected]
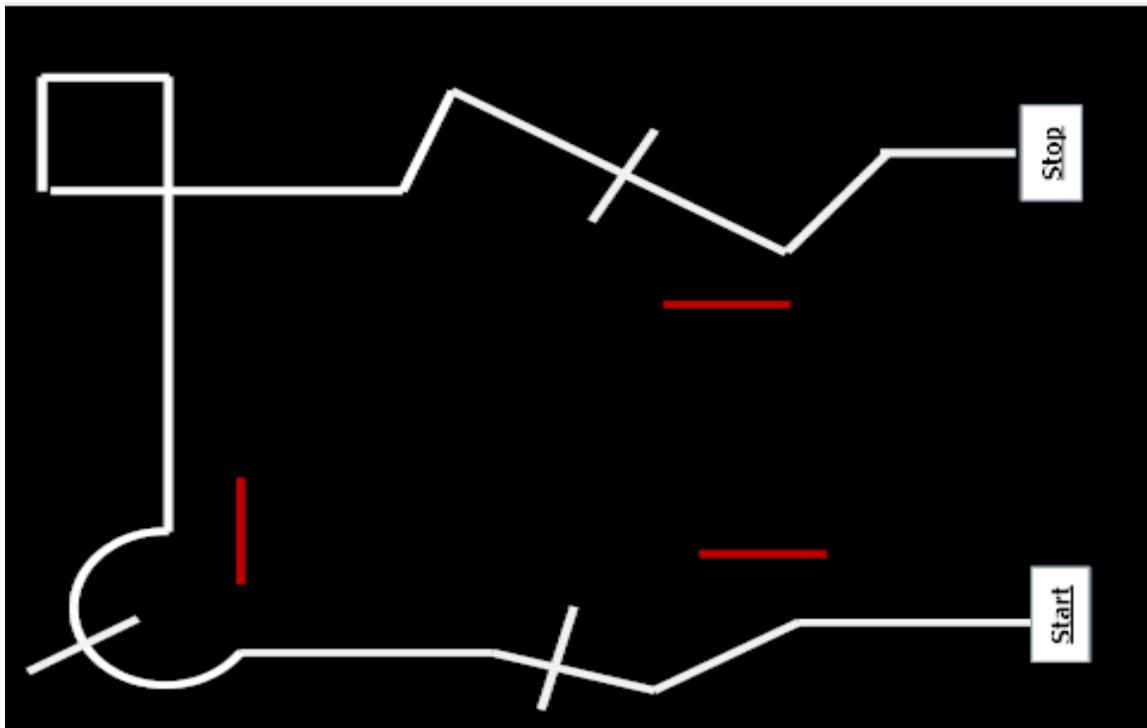
Round 2

1. For this round the bots have to complete the arena in minimum time.
2. In this round checkpoints and walls are present.
3. Walls are present on the right side.
4. In this round bot have to stop at finishing points.

 Scoring:

1000 - [**150** if restart] - **100***[No. of timeouts] - **50***[No. of hand touch] - **2***[Time in seconds] + **50***[checkpoints correctly detected] + **50***[no of walls] + **100***[if stop at finishing points]

Sample Schematic:

The Real arena may differ from this given sample.

EVENT COORDINATORS:
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