

The Annual Tech-Fest of GEC, Vaishali

VISION'25

13th- 14th Sept 2025

Hurdle Mania

OBJECTIVE:

To design and build a manually controlled robot that can navigate a challenging obstacle course filled with hurdles, ramps, turns, tunnels, uneven terrains, and surprise traps in the shortest possible time without collisions or disqualifying errors. The event tests bot agility, precision, and real-time problem-solving ability.

TEAM:

- Each team comprises of 2-5 members, with each team having a designated leader to handle communications with judges.
- Students from same institutes can form a team.



RULES:

1. Single runs per team; fastest time counts, no trial run will be allowed on Arena.
2. Setup time: 2 minutes
3. Max run time: 3 minutes
4. Robot must be manually controlled
5. Touching obstacles or going off track will incur penalties
6. Only 1 handler allowed in arena during the run
7. No modifications will be allowed after setup completion.

HURDLE DETAILS:

- Ramps (15–30°), potholes (3–5cm depth), barriers (up to 5cm height), Zig-zag paths, Inclined ramps, Sand/gravel patches, thick mud etc.
- Surface: soil, sand, rocky surface plane surface, muddy surface, cave.

ROBOT SPECIFICATIONS:

- Robot must move manually and must start via switch or remote button, no manual intervention allowed after the start
- The size of the robot shall not exceed 25cm (length) x 25cm (width) x 25cm (height)
- The total weight of the robot shall not exceed 2kg.
- Robot can be wired/wireless
- The robot must not split or get separated into more than one unit. Otherwise team will be disqualified.
- External control using wireless system allowed



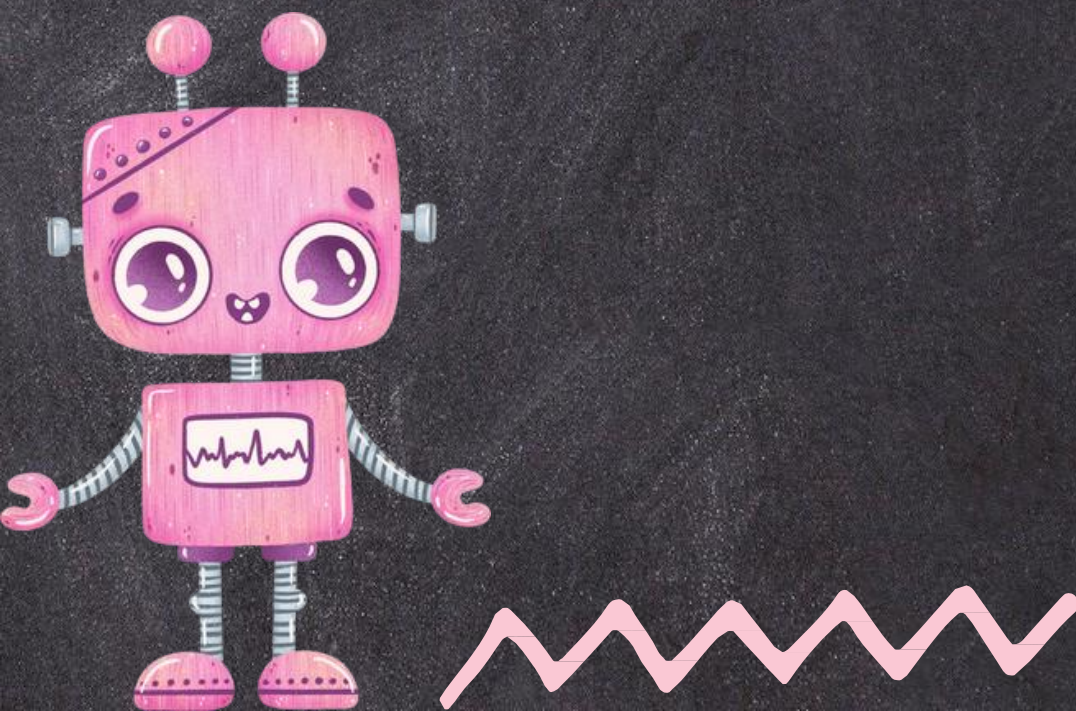
SCORING:

Event	Penalty
Falls off ramp	+10 sec
Manual lift	+10 sec
Skips hurdle	+10 sec (Restart from previous foul point)
Touches hurdle but crosses	+10 sec

- **Note*** : At a time only one foul counts & penalty for only one foul will be given.

CRITERIA FOR DISQUALIFICATION:

- Team is not present for robot inspection five minutes before the beginning of a match.
- Team's robot does not meet the specifications.
- Team member ruins the game.
- Team member displays unsportsmanlike behaviour.



WINNING CRITERIA:

- The teams will be ranked based on the team's final (fastest) time.
- In the event of a tie, the team's next trial time of the two tries will be referred.

VENUE: ACADEMIC GROUND

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