

LINE FOLLOWER

A. **Competition Description:** A Challenge where Robots beat each other at following a track from start to end in the shortest possible time. A game of Speed, Perception and Sequence. Join the Contest to see if your robot can transcend its competition.

B. **Submission Guidelines:** Individuals or teams should submit the following description of the Robot that will be used in the competition:

- Name of the team
- Description (Dimensions, Weight, Power Supply, Other, etc.)
- List of components

C. **Robot Specifications:**

- Maximum dimensions - 25 cm x 25cm (l x b).
- Once a robot has crossed the starting line it must remain fully autonomous, or it will be disqualified.
- Maximum weight – 900 g
- Machines made from Lego parts, or any ready-made kit will be disqualified.
- Power supply must be on board.
- Each team is allowed to have only one bot for all the rounds.
- Batteries must be sealed, immobilised electrolyte type (gel cell, lithium, NiCad, or dry cells).
- The electric voltage anywhere in the machine should not be more than “12V” DC at any point of time.

D. Track Specifications:

- The line following course shall traverse a white paper rectangle, 180 cm wide and 275 cm long.
- The line shall be black and 1.5-2.5 cm wide.

E. General Rules:

- Team Members - 3 (Max.)
- Each member of the team must contain an identity card of his/her respected institute.
- The robot should not damage the arena.
- No test practice will be allowed on the arena.
- The robot must not leave behind any of its parts during the run; else it will result in disqualification.
- Unethical behaviour could lead to disqualification. Faculty coordinators have all the rights to take final decisions for any matter during the event.
- Jury's decision will be considered final.
- Certificates of Participation will be given to all teams except the disqualified teams (due to disobeying any of the competition rules).

F. Game Rules:

- **Course Time:** Time is measured from the time the robot crosses the starting line until the time it crosses the finish line. A robot is deemed to have crossed the line when the forward most wheel, track, or leg of the robot contacts or crosses over the line.
- **Time Limit:** A maximum of 3 minutes is allowed for a robot to complete the course. A robot that cannot complete the course in the allotted time shall be disqualified.
- **Timekeeping:** Time shall be measured by a jury with a stopwatch. The recorded time shall be final.
- **Course Rules:** Every line follower robot must pass the course at least 1 time and at most 3 times. Referee must choose the best result. A robot that wanders off the arena surface will lose one attempt. A robot shall be deemed to have left the arena when any wheel, leg, or track has moved completely off the arena surface.
- **Losing the Line:** Any robot that loses the line course (but not wanders off the arena surface) must reacquire the line at the point where it was lost, or at any earlier point. Otherwise, the robot will lose one attempt.