

# Lego 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.

### **B. Submission Guidelines:**

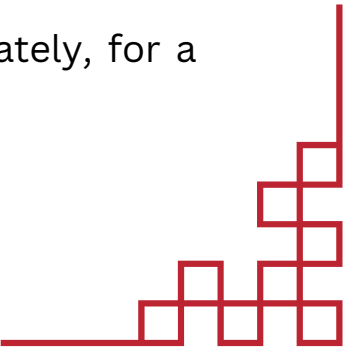
Individuals or teams should submit the following description of the robot that will be used in the competition:

- 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) with +5mm Tolerance
- Once a robot has crossed the starting line it must remain fully autonomous, or it will be disqualified.
- Maximum weight – 1 Kg
- Each team is allowed to have only one bot for all the rounds.
- The robot must use only batteries or cells that are recommended by LEGO®.
- The electric voltage anywhere in the machine should not be more than “24V” DC at any point of time.
- The remote is not mandatory for LEGO® robots which can also be controlled with a start and stop button on the robot.

### **D.The Field :**

- The field is made of white synthetic material.
  - The track can either be open or closed.
  - The 20 mm wide line, or track, has been printed on the field with black ink.
  - The minimum turning radius of the line is 0.
  - The line is surrounded by 25 cm of free space on both sides, except on cross-sections.
  - The start and finish lines are marked on the field separately, for a closed track the start and finish lines can be the same.
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### E. General Rules:

- The event is only open to those who registered online. No On-spot Registration will be entertained.
- 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 behavior 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.
  - **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.
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