

BALANCE ON THE LINE

INTRODUCTION:

The first thing we recognize in the park is the Seesaw. Playing Seesaw would be always fun. Unlike with humans why don't you make a bot and play with it? Let your reflexes come out and show them in controlling your bot

PROBLEM STATEMENT:

To build a manually controlled robot, within the given specifications, which can climb an inclined plane (Seesaw) which will tilt another side after reaching center.

It should come back to the initial position where it's started i.e., it should travel two times on the plane in the shortest time without falling from the plane.

ROBOT SPECIFICATIONS:

1. The maximum dimensions of the robot are 30cm x 30cm x 30cm (l*b*h).
2. Robots can be wired or wireless.
3. If wired, the wires shall be slacked always. The participants are suggested to have minimum wire length of 1 m.
4. Potential from any point to another must not exceed 12v.
5. The weight limit for the robot is 4kgs.
6. Tolerance of 5% on dimensions and power supply will be accepted.
7. Grippers are allowed.

QUALIFYING ROUND:

1. A wooden plank (plane) is pivoted to a stable stand at its center so that it acts like a Seesaw.

2. It may contain obstacles like wooden strips of height not exceeding 3cm which are fixed to the plane.
 3. At first your bot is placed at one end of the plank.
 4. You should operate your bot such that it reaches other end and after that you should come back to the initial position where you have started.
 5. The robots shall be judged based on the time taken for completion including the penalties.
 6. If your bot falls from the plane it shall be disqualified.
 7. The penalty details shall be disclosed at the time of the event.
 8. If your bot is unable to move from its position you can replace it at the same position at desired angle with some penalty.
 9. If the robot becomes immobile, the team shall be initially provided with 60 seconds for fixing it. If the team fails to fix it in that time, extra 60 seconds shall be provided with some penalty. In case of a failure for the next time, the team shall be disqualified.
- NOTE: Subsequent rounds shall be announced at the time of the event.**



NOTE: The above figure is just an example, real arena could be somewhat different.

RULES AND REGULATIONS:

1. A team can consist of a maximum of **4 members**.
2. Members of different institutions can form a team and must carry your respective college ID cards.
3. Only **2 members** of a team can stay around the arena (for controlling and assistance).
4. No technical assistance will be provided by the coordinators during the time of the event.
5. No practice runs will be provided.
6. Use of an IC engine in any form is not allowed.
7. All bots must contain their own power supply. No external power supply shall be provided at the time of the event.
8. Any kind of accelerometer module or a mobile phone accelerometer can be used to control the robots.
9. Any robot with the chassis of a toy car or its gearbox as a machine part, as well as LEGO kits are strictly prohibited.
10. Each member can only take part once in a particular event.
11. Each robot can take part only once in a particular event.
12. The organizers are not responsible for any kind of damage to the robot.
13. In case of any discrepancies, the decision of the coordinator and the event head shall be final; no further arguments shall be entertained.

NOTE: Kindly keep changing the ROBOVANZA website for further updates.

CERTIFICATE POLICY:

1. Certificate of participation shall be awarded to all teams except for the disqualified ones.
2. Certificate of merit shall be awarded to the winner along with the cash prize.

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