

INSIDE OUT

Inside out!!! To reach the end of the road you happen to take accidentally, you have to complete certain tasks as well as stop the other person from getting into your way and at the same time don't let the other one reach the end before you do !!!

➤ Event Description:

Participants have to design a robot which can be controlled manually. Robot must have ability to move on rough terrains Robot must also equipped with a hand mechanism that can pick and place objects and have a hook too.

➤ GAME PLAY

- ✚ There will be two teams A and B. Both the teams have to complete the given task in minimum time possible and simultaneously kill time for the other team
- ✚ Team A runs on the outer track whereas team B on the inner track for round 1.
- ✚ The timer starts as soon as the bots start from the area demarcated as "start".

- ✚ The timer stops as soon as one of the teams complete all the given tasks whereas the other team is left devoid of time and thus loses.
- ✚ For the next round. team A runs on the inner track and team B on the outer track
- ✚ There will be common gates in the arena at certain stops. The team which reaches the gate first will close the gate for the other team for a duration of 10 seconds.

❖ **THE OUTER ARENA**

- ✚ Team A starts from the START and moves on a rough terrain and climbs up an incline. there is a bridge made up of bricks, the bot balances itself and moves past it, then the bot climbs up on a trolley, there is a conducting rod, the bot pushes the rod to complete a circuit which moves the trolley and the bot along, to a broken bridge. the bot picks up the remaining parts of the bridge to complete it and moves on the bridge to an incline.
- ✚ Then the bot moves on rough terrains towards the common gate as soon as possible.
- ✚ Now, the bot moves towards a plank to be lifted up using the hook to complete the path and moves on the plank.
- ✚ Next, is a common gate to be reached in minimum time possible, few rough terrains and the end of the task.

❖ **THE INNER ARENA**

- ✚ There is a container with water, the bot picks and drops small boxes into the container to increase the water level, water flows through the

pipes to another container which opens a gate, and the bot moves past it.

- ✚ The bot now moves quickly to the common gate.
- ✚ Next, the bot moves down the incline to a conveyer belt running in a direction opposite to that desired for the bot, the bot balances itself and moves further
- ✚ He bot picks up another box nearby which opens another gate and clears the way, and the bot climbs up the incline further
- ✚ The bot now places he box picked up earlier to open another gate and moves further.
- ✚ Now the bot has to hoist a flag to mark the completion of the tasks

➤ ARENA

Track width 35 cm

Outer track length 5 ×5 m

Inner track 3.5×3.5m

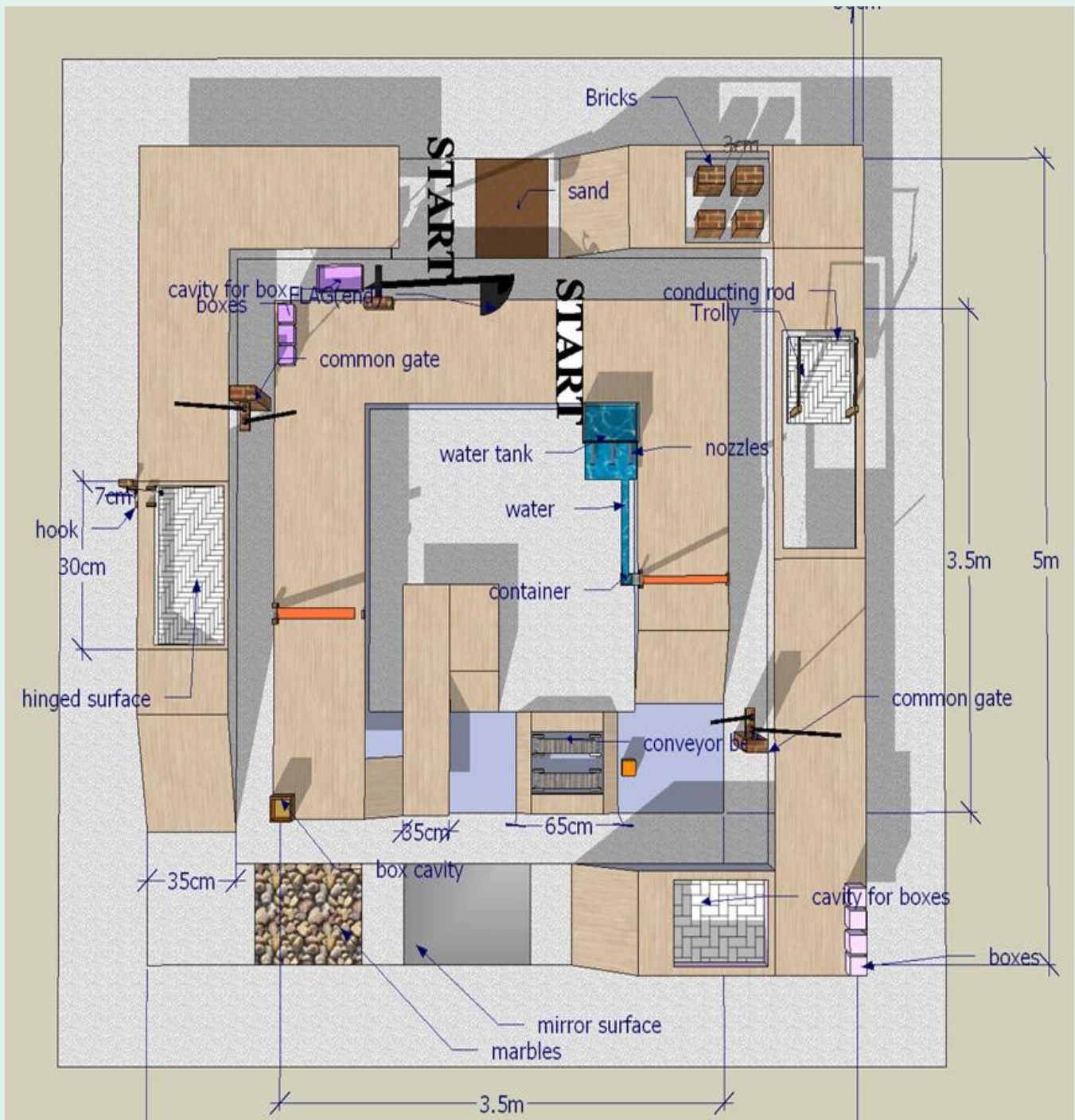
Height of track 30 cm

Slant angle not more than 25° everywhere

Height of hook from ground 7 cm

Conveyor belt length 65 cm

Spacing in brick bridge 3cm





FOR MORE DETAILS VISIT:

<https://goo.gl/WVZoHl>

OR

SCAN THIS QR CODE: -



➤ Bot Specifications:

- ✚ The bot can be manual or Semi-autonomous, provided normal household voltage will be provided by the organizing committee.
- ✚ Dimensions of the bot should be within 30x30x30(LxBxH).
- ✚ A hook and hand mechanism will be required in this event.
- ✚ Contestants must have to bring their adapters range within 12-15 volts.

➤ Rules:

- ✚ The bot with the maximum score is announced as the Winner. In case of tie, the bot with the least time taken will be considered the winner.
- ✚ In case of further tie, winners will be decided based on minimum number of errors, if there are any ties further, type of bot is considered which is more efficient.
- ✚ If none of the Robots finishes the course, then the one which covered the longest distance in less time will be considered the winner.
- ✚ Maximum number of five Participants are allowed in a team.
- ✚ If the machine remains immobile for respectable time, then on the spot decision will be taken by the organizers.
- ✚ Winners will be decided based upon the scores with minimum number of penalties made.
- ✚ There will be two rounds –Qualifying Round and Final Round

In Qualifying Round teams will be short listed based on time and selected for the Final Round

➤ SCORING SCHEME

- ✚ All teams will have 1000 points initially.
- ✚ 50 points each for closing the gates to block enemy bot.
- ✚ 50 points will be deducted for bot going off track.
- ✚ 100 points will be awarded to the bot finishes first.
- ✚ 50 points will be deducted for extra assistance provided to bot during battle (in case the bot flips around or has to pick up by contestant).
- ✚ 50 points will be given to complete each task.

➤ CERTIFICATION POLICY AND PRIZES

- ✚ Certificate of Excellence and Cash Prizes will be awarded to winner and runner-up.
- ✚ Certificate of Appreciation will be Awarded to 2nd runner-up.
- ✚ Certificate of Participation to all the teams participating in Event.

➤ CONTACTS

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