



When walking through the 'valley of shadows,' remember, a shadow is cast by a Light."

Have you ever wondered why your shadow follows you everywhere? Well it might not be rocket science to understand why but the real challenge lies in shadowing itself. Pave a path for something that will follow what you have carved for it. So get ready to be the literal copycat and follow in someone's footsteps while you embark on a journey that has never been taken before.

PROBLEM STATEMENT

- Build a manual robot that should be able to lift and place objects.
- Build an autonomous robot that should be able to follow a wall to reach its destination.

GENERAL RULES

- Each team can have a maximum of 4 participants.
- Each team should have unique participants i.e. no two teams can have even a single participant common.
- A team may consist of students from different colleges.
- No damage should be made by a bot to the arena in any manner.
- The organizers reserve the right to change the rules as they deem fit and their decision is impasse.

ROBOT SPECIFICATIONS

- The manual robot can be controlled by any one of the members and the autonomous robot should be fully autonomous.
- The robot dimensions should not exceed 25cms*25cms*15cms.
- Tolerance level of 10% on dimensions is acceptable.
- The maximum weight of the robot must not exceed 2.5 kilograms.
- The robot can be powered on-board or off-board and the

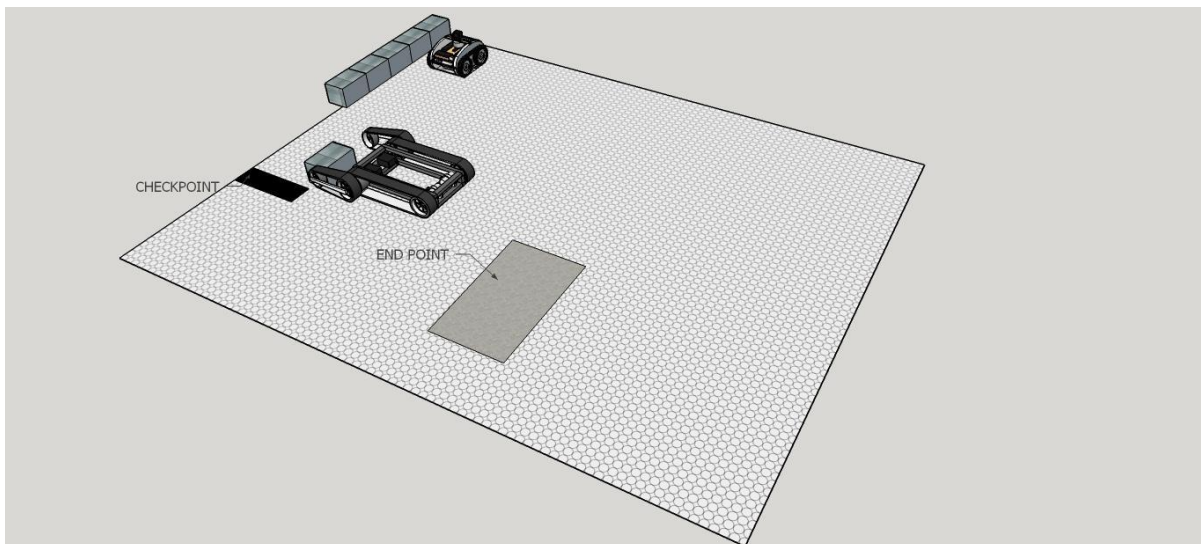


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participants will be provided with a Standard 220 volts - 50 Hz AC power supply outlet.

- The potential difference between any two points on the robot must not exceed 22 volts throughout the run.
- In case of using off-board power supply units, or wire communication, or both, the wires must be kept slacked all the time.
- The length of wires used for power supply should be adequate and should be kept slack during the run.
- LEGO or readymade kits are not allowed.

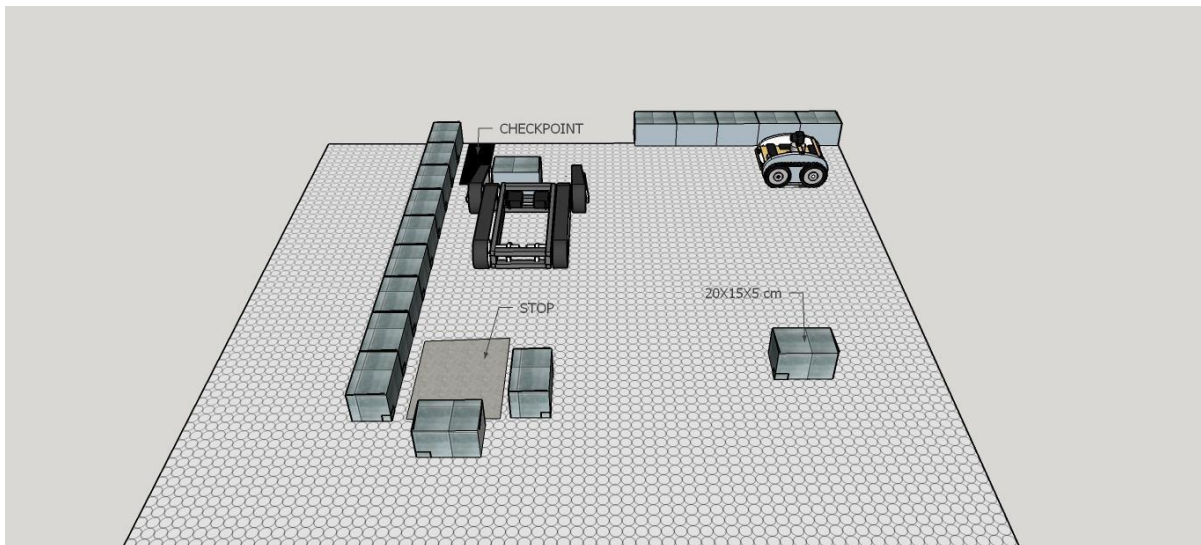
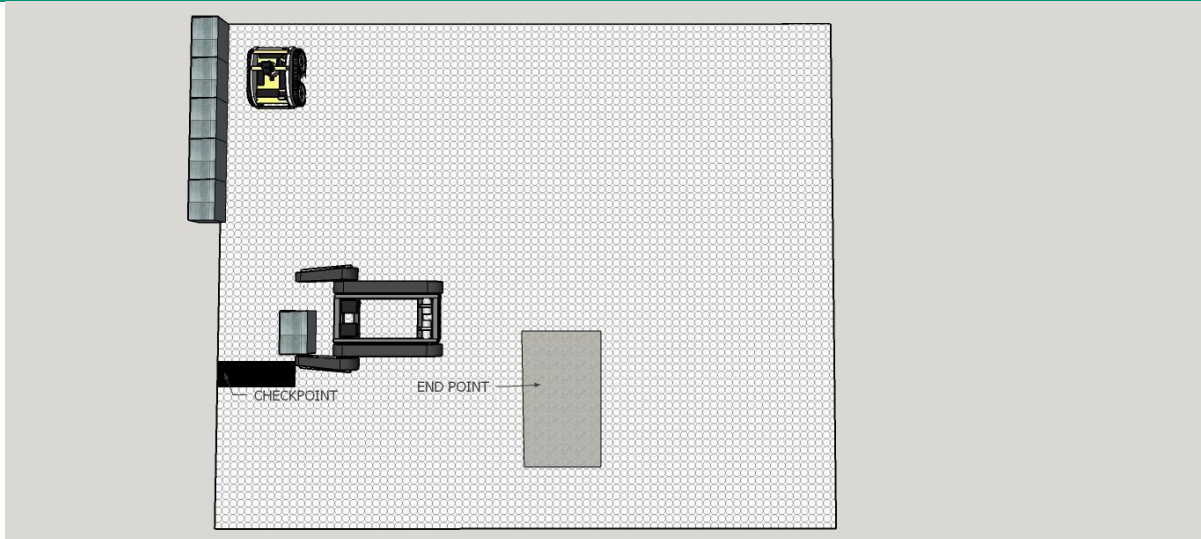
ARENA

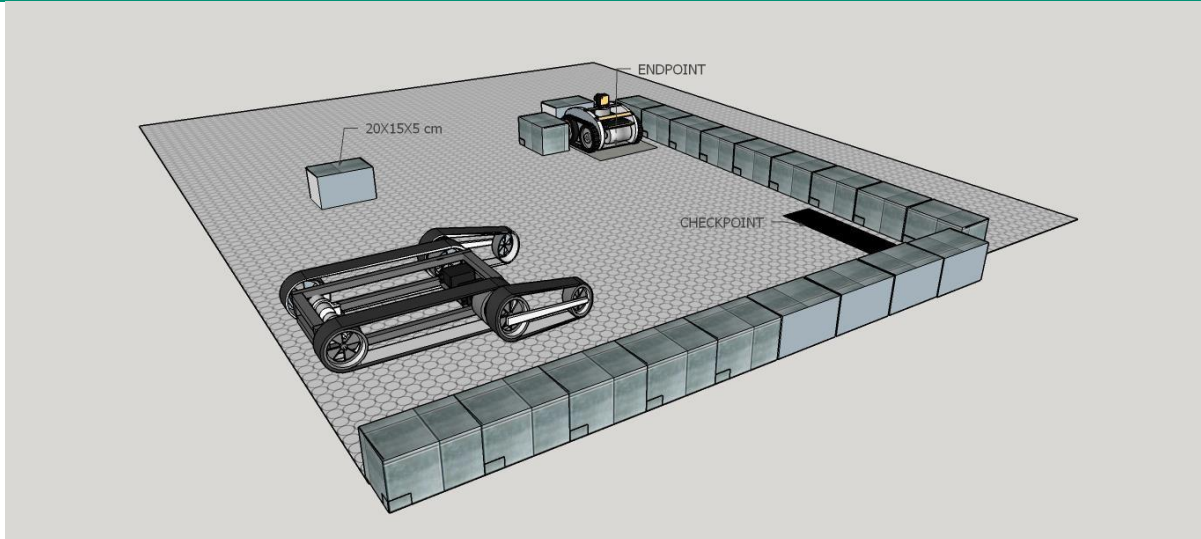




Explore. Develop. Grow. Emerge.

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Disclaimer: The above given are sample arenas, solely designed for understanding the objective. The actual arena may or may not differ.

OBJECTIVE

- You will be provided with 15 blocks of dimension 20cmsX15cmsX5cms.
- Using the manual bot you have to place the blocks in such a way that the auto bot can follow the blocks and reach the end point while detecting the checkpoints and stop.

EVENT RULES

- The manual bot should be firstly placed in the arena to start placing the blocks.
- After 1 min of run of the manual bot the autonomous bot can be placed in the arena.
- Extra bonus points will be provided for detecting the checkpoints (use a buzzer or LED or any other method to show the detection) and for stopping at the end point.
- Maximum of 2 technical timeouts (2 minutes each) and 1 restart is allowed.
- For human intervention of the bots or blocks are allowed except during timeouts or restart.



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SCORING

Score = 3000 - (20*blocks used) - (5*Total Time Taken) - 200*Restart -
100*Timeouts + (100*checkpoints detected) + 200(for stopping at the
endpoint)