

Objective:

To design a robot that competes against another robot on an adventurous and thrilling arena with an aim to beat out the other robot to reach the final destination.

Track Specifications:

- The track would be uneven having varying width, within the range of 40 -50 cm.
- The obstacles and avoidances on the track may be present in the form of:
 - Sand & Gravels
 - Grass & Water (with a maximum height of 4 cm)
 - Clay
 - Nails
 - Rumble Strips
 - Plaster of Paris
 - Wooden Bridge
 - Wire Mesh
 - Glass spread with oil or powder
 - Inclined with a maximum inclination of 40 degree
 - Steps of maximum height 2 cm
 - See-Saw
 - Conveyer belt
 - Vertically moving blocks
 - Automatic gates
 - Spiral Motion.

Whole track will have various check points at regular intervals.

Arena will be declared on spot itself.

Competition Rules:

- The race will be conducted on timing criterion i.e. the team to complete the whole track in minimum possible time will be the winner.
- The race would start from a launch platform at the beginning of the track.
- Two robots of different team will be made to start the race simultaneously.
- During the course of run if the robot fails to cross an obstacle the participant may skip that and the robot would be able to skip that obstacle. But this penalizes the participant with some time duration depending upon the level of obstacle.
- At no point during the run, your robot should come out of racing track (due to poor control or being hit etc) and if it happens, you will be put on the previously cleared checkpoint and continue from that point. Organizers' decision in this regard (whether the robot has come out of the track or not?) would be final and binding to all the teams.
- To encourage wireless control, you will be given bonus time in the prelims round to complete the hurdles but in subsequent rounds you wont be provided with such an advantage.
- If wires of the two robots get entangled the timer would be stopped and you will be allowed to free your wire.
- You can not touch your robot once you are in the track, but in case of any need one of the member of organizing team can do so but the timer won't be stopped.
- There is no provision for timeout if your robot needs to be repaired while on the track.
- You have to put one of your teammates to check the power supply which would be provided to you.

Robots' Specifications:

Dimension & Fabrication:

- The machine should not harm the track. Constantly harming the arena may lead to disqualification.
- Robot must not exceed the dimension of 30cm x 30cm x 30cm at any point of time. Dimensions will be checked but putting the robot inside a box of inner dimensions 30cm x 30cm x 30cm.
- The external wired/wireless remote control used to control the machine manually is not included in this size constraint.
- If the machine uses an externally placed power supply, the dimensions of the power supply are not included in the size constraint. However, in case of an onboard power supply, the machine along with the power supply should follow the dimensional criterion as discussed.
- During the game, the machine can not expand or detach itself into multiple parts.
- Machine cannot be constructed using readymade Lego kits or any readymade mechanism. Violating this clause will lead to the disqualification of the machine.
- The use of chemicals which would affect the track is prohibited.
- Participants found using unfair means to complete the track will be penalized either with time penalty or disqualification.

Power Supply & Propulsion:

- The machine can use an externally placed or on-board electric or non-electric power supply. However the power supply must be non-polluting and must satisfy the safety constraints determined by the judges. In case the machine is using a non-electric power supply, kindly get it approved from the organizers beforehand via email. Organizers are not responsible for inconvenience if approval is not sought.
- The organizers will provide a standard single phase, 230V, 50 Hz AC power supply. Any extension cords, eliminators, adaptors etc required will have to be arranged by participants themselves

Controls:

- The machine has to be necessarily controlled by some wired/ wireless remote control mechanism at all stages of the game.
- In case of wireless mechanism, to avoid frequency interference between the competing machines, each machine must have two remote control circuits (or a dual frequency remote control circuit) which can be switched to either frequency before the start of the game.
- In case of wired mechanism, the wire must be slack for the duration of the game. The total length of wire extending from the remote control to the machine must be a minimum of 10 meters. The participants must ensure that the wire does not get entangled with the opponent's machine during the game



General Rules:

- The teams must adhere to the spirit of healthy competition. The teams must not damage the opponent's machine in any way. Judges reserve the right to disqualify any team indulging in misbehaviour.
- Any team that is not ready at the time specified will be disqualified from the competition automatically.
- The machine would be checked for its safety before the race and would be discarded if found unsafe for other participants and spectators.
- Judges decision shall be treated as final and binding on all.
- The organizers will not hold any responsibility for any damage/loss sustained by the machine/team during the game.
- **The organizers reserve all rights to change any or all of the above rules as they deem fit. Change in rules, if any will be highlighted on the website.**

Team Specifications:

- A Team may consist of maximum four and minimum two members.
- Members of the team may be from different branches, year or colleges.
- All the team members should have a valid college identity card with them.

Description of Different Rounds:

The event will consist of various rounds. We may include a round in which controller is blind folded and other team member will be guiding him of the track. All these details will be disclosed on the spot of event itself.

Clarification & Updates:

Keep visiting our website for updates.

For any other information or queries contact:-

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Final Comments:

All competitors will be expected to follow the engineering code of ethics while competing. At any point of time the rules can be changed without prior notice. The decision of the judges will be final and binding in all cases.

BEST OF LUCK TO ALL