

Roborace Challenge

Game Play

The aim of the challenge is to make a wired or wireless controlled robot/rover that can travel through different terrains and complete the track in minimum time.

The competition is organized in 3 rounds. First round will be the league matches after which 8 teams will be shortlisted for the semifinal round. 4 teams will be shortlisted for the final round from which winner and runner-up will be awarded. Each team will be given a chance to test run their robot.

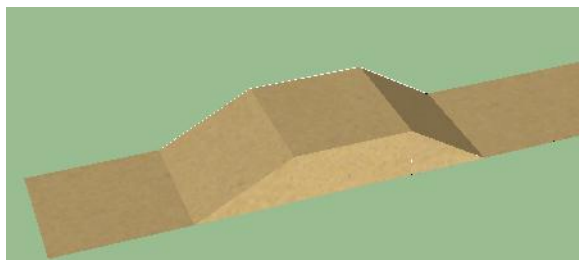
Scoring and Judging Criteria

- **Track Time:** Time for which the robot remains on the track.
- **Checkpoints:** The entire track will be marked with various checkpoints which the robot shall cover to reach the finish line.
- **Penalty time:** Each time any of the team members touches the robot during the run or skips the check points, time penalty will be imposed.
- **Total time:** Track Time + Penalty time.

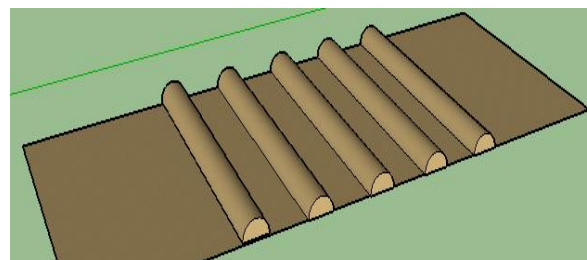
Top two teams with the maximum checkpoints and minimum time will be winners.

Arena specifications

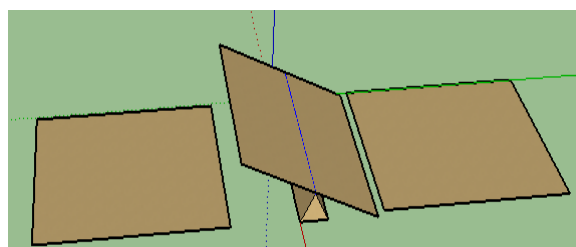
- **Possible Obstacle**



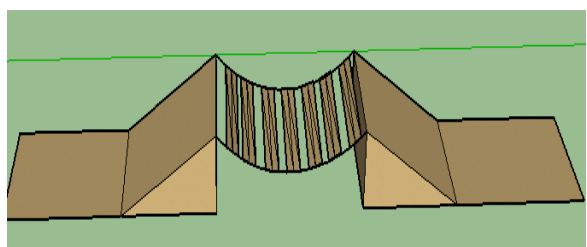
Inclined Platform



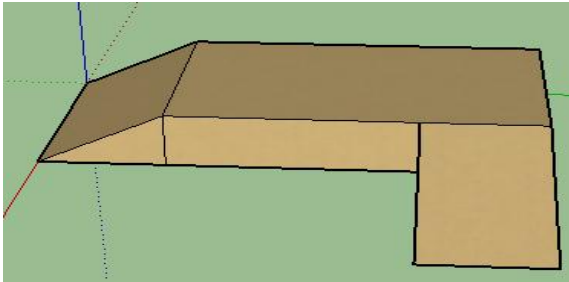
Speed Breaker



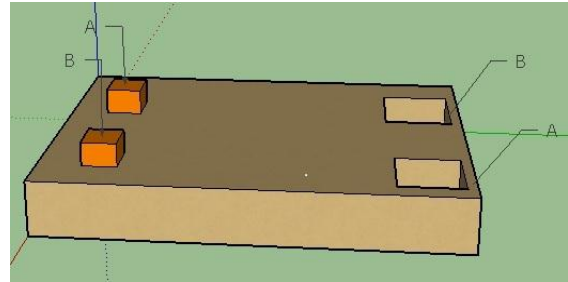
See Saw



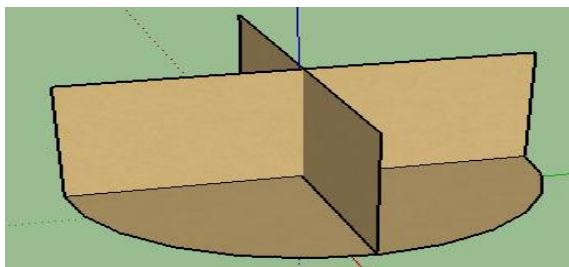
Hanging Bridge



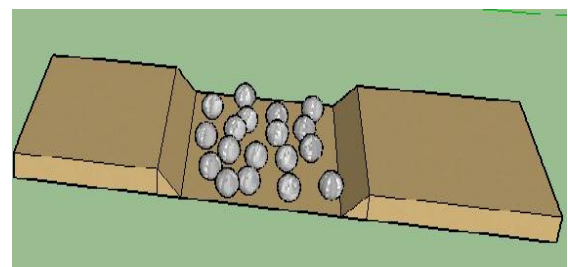
Platform with turn



Placing block in pit

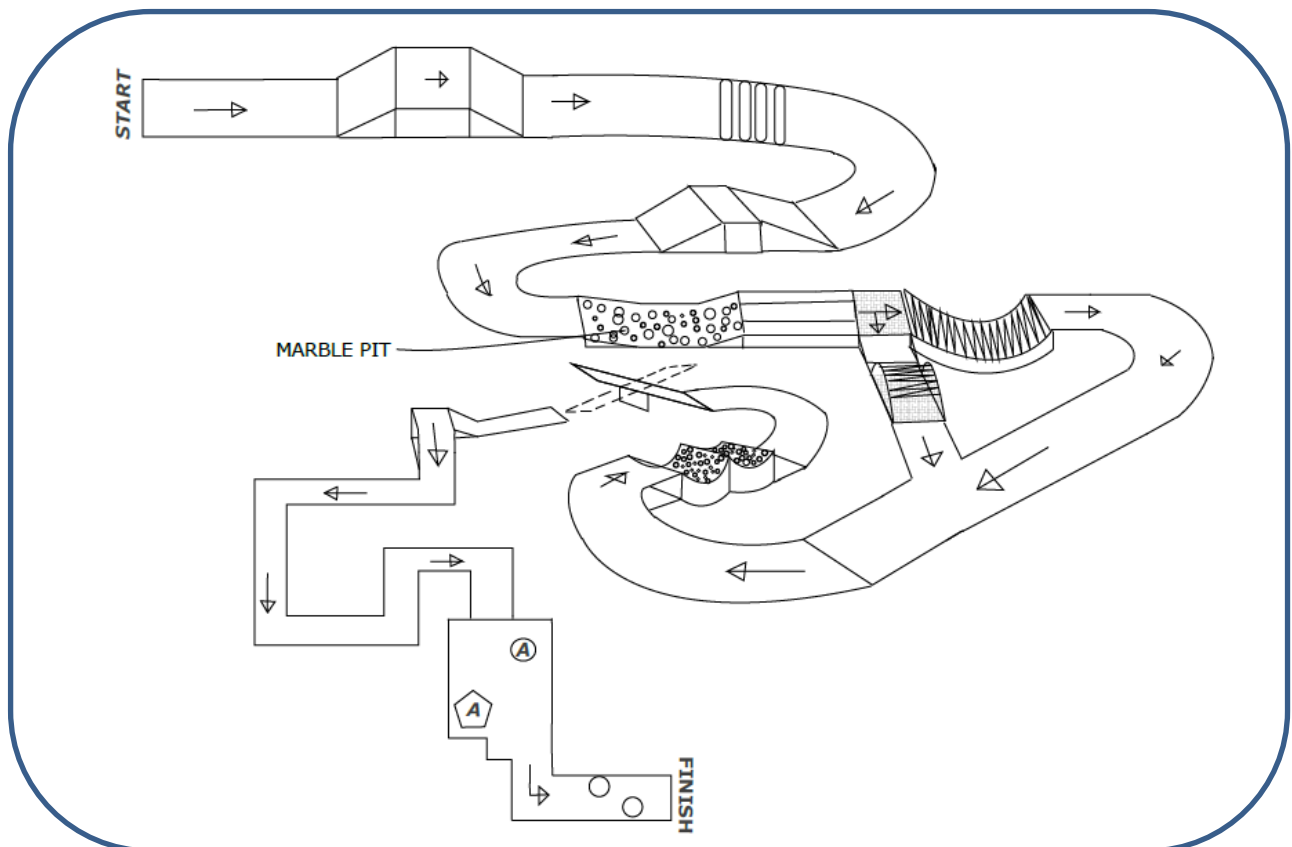


Merry Go Round



Marble Pit

- Example Track



Rules and Regulations

- **Technical**
 - The dimension of the bot must not exceed 30x30x30 cm³.
 - The weight of the robot should not exceed 2 kg's.
 - The maximum voltage used to run the robot shall not exceed 18 volts.
 - Robot can be wired or wireless.
 - If the machine is wired then the wire must remain fully slack under all circumstances during the competition. All the wires coming out of the robot should be stacked as a single unit and must be properly insulated.
 - Teams are suggested not to use castor wheels as there can be gaps in between the tracks.
 - Only AC supply will be provided during the competition. Teams must bring their adaptors or batteries or chargers.
 - Use of Lego is strictly prohibited.

- **Procedural**
 - Teams will be given a time slot and will be called accordingly. Teams must be ready with their robots before their time slot. Teams missing their calls will be disqualified.
 - In a round, each team will get one chance to run the robot on the track.
 - Robot once touched by any of the team member, will be reset at the last checkpoint cleared.
 - Maximum 2 checkpoint skips are allowed during the race. For each skip time penalty will be imposed which will be disclosed on the challenge day.
 - Team with a wireless robot must keep their robot turned off to avoid interference with the running.

- **Conduct**
 - Each team must follow the instructions given by referee during the run.
 - Any damage caused to the challenge arena or to the robots of other teams will lead to disqualification.
 - All teams shall abide by all the rules and must display healthy competitive spirit.
 - Referee's decision shall be treated as final and binding on all.