Full Throttle

Problem Statement: To build a manually controlled or wireless robot that has the capacity to cover maximum distance in shortest possible time and capable of negotiating different kinds of obstacles and completing the designated track. If so, get it on the track and let the game begins.

GENERAL RULES-

- There will be rounds comprising of different hurdles and bumps.
- The length of wire (for wired bots) should be long enough to cover the whole track.
- Maximum of two team members will be allowed to control the car at a time.
- The track will have checkpoints at regular intervals. If a robot tumbles, halts or goes off the arena at any point of the track, one of the team members is allowed to lift it up and place it at the nearest checkpoint behind that point. The time shall still be running in the meantime.
- Team members are not permitted to touch either their robots unless there is need to lift the robot. The penalty for doing so is disqualification.
- If a robot is unable to move for more than 30s, then it will be assumed that the car has failed and that round will be considered to have ended.
- Wires must remain slack at all points of time during the competition.
- The robot should not damage the arena.
- Unethical behaviour could lead to disqualification.
- Your robot must be ready when call is made for your team.

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ROBOT SPECIFICATIONS-

- The vehicle has to be in the dimensional limit of 40*40 cm (l*b).
- Maximum weight must not exceed 10kg.
- Minimum height of the robot must be 8 cm.
- The robot may either be wired or wireless.
- No readymade car or toy is allowed.
- Any material can be used according to the ease of the team (e.g. plastic, metal, thermocol, wood, etc.)
- No readymade steering mechanisms are allowed. Readymade gears, shafts however may be used.
- Robots can have a maximum of 6 motors.
- Robots must have a minimum ground clearance of 2 inches
- It should pass all the wet patches

BATTERY AND POWER-

All the efforts must be made to protect battery terminals form a direct short and causing a battery fire, failure to do so will cause direct disqualification .Teams are allowed to use both ac and dc power sources in the event. Only one power point of 230V ac and a battery (12v 35aphr) power will be provided near the arena.

Teams have to bring their own extension ports if they want to use more than one power point.

Teams are allowed to bring their own power source (battery). The electric voltage anywhere in the robot should not exceed 12V at any point of time.

JUDGING CRITERIA-

- The vehicle which completes the track in minimum time OR crosses the maximum checkpoints will be the winner.
- If in case of any discrepancy, final decision will be announced by the judges.

The decision of the organizers will be final.

ARENA-

- The track will be an all-terrain track with sharp turns, rollers, wet patches, and big jumps. The robots should be able to cross bumps, rough patches on the track and outdo the opponent's robot while maintaining its stability and not compromising with its pace.
  The width of the track will be around 70cm for most of the part.
- The arena will consist of obstacles like see saw path, zigzag path, inclined wedges, tunnels, pits, pebbles and slippery path.
- Despite organizer's effort to keep the track's quality intact, the track is subjected to undergo wear and tear as robots run over it. The robot is expected to be able to perform on such a weakened track as well.

BONUS POINTS: -

Wireless robots will be given some bonus advantage.

REGISTRATION DETAILS

- Maximum members = 5
- Registration fees = Rs.500/- per team