ROBORACE

Problem statement:-

“Run fast or be last.”

Design a manually controlled bot that can traverse given path through different terrains including various obstacles, bridges, inclines and much more in minimum time.

Objective:-

To ride your way through hurdles in minimum time by collecting bonus time through the path.

Game play:-

The game will start from the start point on the track. You have to complete the track by crossing hurdles on your way and collecting bonus time in minimum time.

There will be three rounds, and winner will be decided in the final round.

- In round 1, top 6 teams will be selected on the basis of minimum time in round 1. And they will qualify for the next round.
- In round 2, top 4 teams will be selected out of 6 teams for the final round.
- In final round, top 2 teams will be awarded as winner.

Rules & Specifications

DIMENSIONS

- The dimensions of the robot is 25cm x 25cm (l*b) (10% tolerance allowed).
- The maximum permissible weight for the robot is 10 kg.

ROBOT CONTROL REQUIREMENTS

- The robot can be wired or wireless. In case of wireless robot, the battery should be on-board.
- All required measures should be taken in case of wireless robots.

BATTERY & POWER

- The maximum voltage between terminals of the robot during the match should not exceed 12V.
- Batteries such as LiPo, NiCd, sealed Lead Acid, Li-ion can be used. Change of battery won't be allowed during the match.
- All efforts must be made to protect battery terminals from a direct short and causing a battery fire, failure to do so will cause direct disqualification.
- Use of damaged, non-leak proof batteries may lead to disqualification.

Special care should be taken to protect the on-board batteries. If judges found that the battery is not properly protected, then team will be disqualified immediately

Judging Criteria

1. Qualifying team in round 1 and round 2 will be decided on the basis of minimum time acquired by them in that particular round by adding bonus time.

2. For final round, winner will be decided on the basis of minimum time acquired by them by adding time taken in all the levels (i.e. round1 + round2 +round3).