

Wings 2023

Competition Title – Roborace Championship

Rulebook

1. Purpose :

This document outlines safety and operational regulations that govern robo racing to ensure participants enjoy fair competition in a safe environment.

2. How to get into Robo Race ?

- A match is played by a single team in one go, with each team consisting of 1 Racing Bot.
- An individual may participate or construct a team of a minimum of **2** and a maximum of **4** members. Any institution (School/College/University/Vocational Institution) or group of students (within defined age), may form a team.
- Register team for the specified competition **online** on the official Wings website by filling up the google form only.
- Construct a wireless or wired, autonomous or manual Bot. The robot must not be made from any ready-made kit, if found so, the team will be **disqualified**.
- Decision of judges will be final.

3. The Robo Race Bot :

- The participants have to design a manually controlled ROBOT that has capacity to cover maximum distance in the shortest possible time, challenging the hurdles, and be one of the best opponents.
- A bot must fit inside a **30 centimeters wide and 40 centimeters high cube at any point in time**. Maximum weight should not be more than **5Kgs**.
- The robot may be **wired** or **wireless**.
- The length of the wire (for wired bots) should be long enough to cover the whole track, and wire should remain slack during the complete run.
- Maximum of **24Volt** power supply will be provided.

4. Pre-Race Inspection :

- 1) Each participant must have their bot inspected for airworthiness. Technical Inspectors/

- 2) safety officers/ Event Technical Coordinator will ensure materials and workmanship shall be
- 3) of satisfactory standards. It must not be modified or changed, or otherwise it will need to be re-inspected.
- 4) The Event Convenor / Organizing Head may disqualify any bot which, in his or her opinion, is not safe and airworthy in terms of materials, workmanship or design details.

5. Robo Race Racing Track :

- The Racing track has a track of a total length of **80-90ft** (approximately) with a dimension of **30X20 SqF**.
- The track will be **40 cm** wide and will be having certain checkpoints before the hurdles. The surface and course line may have un-evenness as well as different hurdles will be there on the race track trying to slow down the Bot.
- Predefined Obstacles for the competition will include Switch Bridge, speed breakers, marble pit, slippery path, rotating ting disc, curve ramp down, seesaw, etc.

6. Robo Race Game Play

• Race Format

- 1) All races will be governed by an appointed team of judges/organizers and will follow the general rules and regulations of the competition.
- 2) Each race will be monitored by judges, cameras, timing/lap systems and volunteers to maintain fair and accurate competition.
- 3) Any practice or behavior deemed unsafe, will result in an **immediate disqualification**.

• ROUND 1 :

- The participating teams will drive their robot individually in track, for the preliminary round.
- Each time the bot touches either one of the boundaries, there will be a penalty of +5 seconds.
- The time taken to complete the path will be taken as your qualifying time.
- The other penalties and scoring points will be informed on the spot.

ROUND 2 – Final

- Based on the qualifying time of each team, top teams will make it to the finals.

- Each time the bot touches either one of the boundaries, there will be a penalty of +10 seconds.

7. Competition Information :

- **Registration Fees :**

For Individual or a team of 4 – 500/-

For every extra member 250/- will be added

Each member must carry his college identity card.

- **Accommodation :**

Hospitality Partners will provide accommodation for free of cost in college campus.

- **Venue :**

- **Registration Link** – [_ https://forms.gle/4tLHiMDYq6NEuNaX6](https://forms.gle/4tLHiMDYq6NEuNaX6)

- **Website:** <http://www.gecawings.com>

- **Head coordinator:**

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