



# ROBO 3.0 RUMBLE



## INSIDE THE EVENT: RULES & PROCESS

### ROBO SOCCER

**“An action-packed team event where manually controlled robots compete to score goals, combining strategy, coordination, and control.”**



#### OBJECTIVE:-

The objective is to construct a robot, either wired or wireless, within the specified guidelines to score goals and defend against the opponent's robot in a soccer match. Participants design and build their robots to navigate the field, dribble, pass, and shoot the ball, all while outsmarting the opposing team's robot. The matches are knockout battles, where the winner moves on to the next round.

#### GENERAL GUIDELINES:-

- Each team can have 3-5 members only.
- Only undergraduate and School students with valid college/school IDs are eligible to participate.
- Bots can be wired/wireless.
- Batteries must be sealed, immobilized electrolyte type (gel cell, lithium, NiCad, or dry cells)
- Each team is allowed only one robot on the field at a time during gameplay
- The bot must not damage the track, other bots; otherwise, the team will be disqualified.
- Registration amount is ₹400/- per team



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### DIMENSION OF BOTS:-

- Width: Not More Than 30cm
- Length: Not More Than 30cm
- Height: Not More Than 30cm
- Dribbling devices that actively exert spin on the ball, which keep the ball in contact with the robot are permitted under certain conditions.
- Maximum weight must not exceed 5 kg (including battery for wirelessly controlled Robots).
- However, a tolerance of 10% is acceptable but with penalty.
- Note: Failing to abide by above requirement will lead to disqualification.
- The exploitation of loopholes is prohibited.

### REWARDS AND PRIZES:-

- 1st Position: 10,000 Rupees + Winning Certificate + Trophy
- First Runner Up: 6000 Rupees + Winning Certificate + Trophy
- Second Runner Up: 4000 Rupees + Winning Certificate + Trophy
- All the participants will get Participant e-Certificate



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### **POWER SOURCES:-**

- Only electric robots are allowed at the event.
- The battery must be of a sealed and immobilized electrolyte type (gel, lithium, NiCad, or batteries).
- Battery voltage capped at 24 V DC.
- On-site power supplied at 230 V AC; teams must bring adapters/converters (max output: 36 V DC) for AC supply.

### **ARENA DETAILS:-**

- The field will be a rectangular arena with goalposts at both ends.
- The dimensions of the field will be announced during the briefing session.
- A standard lightweight plastic or foam soccer ball will be used.
- The arena will have boundaries; if the ball or robot crosses them, the referee will reset them.



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### GAMEPLAY:-

- Knock-out style competition featuring 2-player matches.
- Each round lasts for a maximum of 3 min having 3 rounds per match with a 1-minute break in between.
- Touching bot during the round will award you a penalty.
- Organizers possess the right to modify the rules.
- Violation of rules leads to disqualification.
- Judges' decisions are final and binding.
- Each team must try to score goals in the opponent's net while defending their own.
- The bot can push or dribble the ball but cannot lift it or hold it.
- Only one bot per team is allowed on the field during play.
- Teams are prohibited from obstructing or damaging the opponent's robot deliberately.
- A goal is awarded when the ball completely crosses the opponent's goal line.
- In the event of a tie, there will be a 3-penalty shoot-out.
- Teams must maintain decorum and adhere to the event's code of conduct.
- A referee will oversee all matches, and their decisions are final.



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