



ABHYUDAYA

Chasing the Singularity of Excellence

रुतरे BOOK

RC CAR

Description :

The RC Bot Car Competition challenges participants to design, build, and operate a remote-controlled robotic car capable of completing a predefined track with obstacles in the shortest possible time while following all technical and safety regulations.

Team Structure :

- A team may consist of 1–4 members.
- All team members must be students of a recognized institution.
- One team can participate with only one bot.
- A participant cannot be part of multiple teams

Robo-Soccer Bot Specification :

Control :

- The bot must be manually controlled using:
Wireless remote (RF / Bluetooth)
- Autonomous bots are NOT allowed

Dimensions :

- Maximum size: 30 cm × 30 cm × 30 cm (L × B × H)
- The bot must fit within this limit at all times.

Weight :

- Maximum weight: 5 kg (including battery).

Power Supply :

- Only on-board power supply allowed.
- Permitted batteries:
- Li-ion / Li-Po
- NiMH
- Lead-acid (sealed)
- Maximum voltage: 12V DC
- AC power supply is strictly prohibited

Components & Materials :

- Readymade RC car chassis are not allowed.
- Use of explosive, corrosive, or hazardous materials is strictly prohibited.
- Sharp edges or exposed wiring are not allowed.

Robo-Soccer Arena :

Arena & Track:

- The arena will consist of:
- Straight paths
- Turns
- Speed breakers
- Ramps / Inclines
- Obstacles (sand, stones, barriers, zig-zag)
- The exact arena layout will be disclosed on the event day.
- Arena surface may be wood, concrete, or synthetic material.

Gameplay Rules :

- Each team gets two official runs .
- Timing starts when the bot crosses the start line.
- Timing stops when the bot crosses the finish line.
- The bot must follow the track path strictly

Penalties :

- Bot going off track: +15 seconds
- Hitting obstacles: +5 seconds
- Manual touch by team member: +15 seconds
- Restarting bot: +5 seconds
- Skipping obstacle: will be decided on that day only

Robo-Soccer Arena :

Scoring & Winning Criteria :

- Least completion time (including penalties) wins.
- In case of a tie:
 1. Fewer penalties
 2. Faster obstacle completion
 3. Judges' decision (final)

Disqualification Rules :

A team may be disqualified if:

- The bot exceeds size or voltage limits.
- Unsafe design or behavior is observed.
- Team violates instructions or shows misconduct.
- Any rule is intentionally ignored

Safety Rules :

- Batteries must be properly insulated.
- No loose wires or exposed terminals.
- Organizers are not responsible for damage to bots.
- Participants are responsible for their own safety.

General Rules :

- Judges' and organizers' decisions are final and binding.
- Organizers reserve the right to:
 - Modify rules
 - Change arena design
 - Disqualify teams for safety reasons
 - Rules may be updated until the event day

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“Design smart. Drive safe. Race within the rules.”