



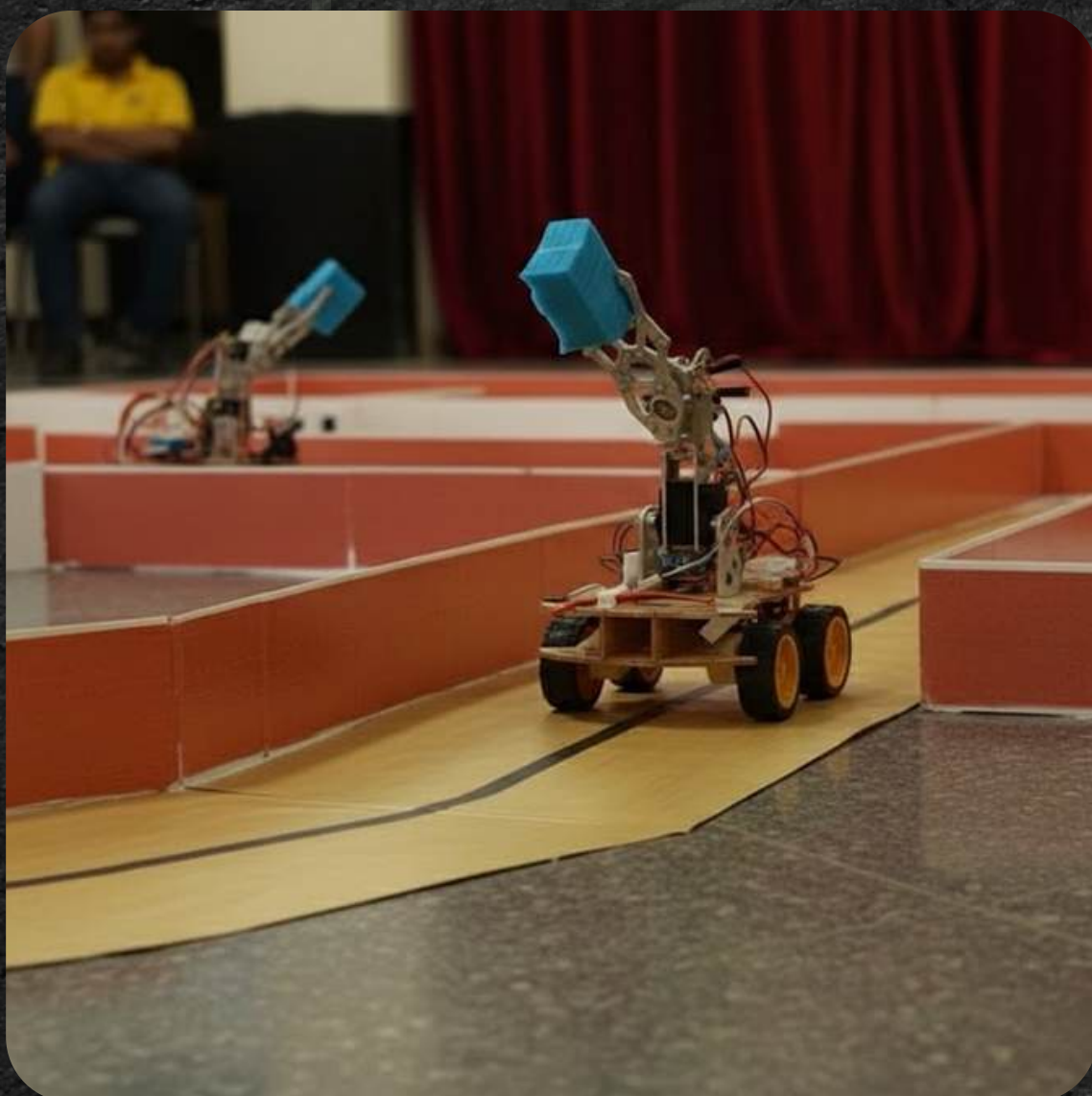
ROBO 3.0 RUMBLE



INSIDE THE EVENT: RULES & PROCESS

PICK AND DROP CHALLENGE

“A task-based challenge where robots must accurately pick objects from designated zones and place them at target locations, testing precision, control, and efficiency.”



OBJECTIVE:-

The objective of the Pick and Drop Robotics challenge is to evaluate the ability of robots to accurately pick and place objects. The event emphasizes precision, coordination, and efficient mechanical design. It enhances understanding of gripping mechanisms and motion control. The challenge promotes problem-solving, teamwork, and practical robotics skills.

GENERAL GUIDELINES:-

- Each team must consist of 3–5 members.
- All team members must belong to the same school/college/institute.
- Only one robot per team is allowed.
- The robot may be manual (wired/wireless) or autonomous.
- Manual handling of the robot during the match is strictly prohibited.
- Judges' decisions will be final and binding.
- Participants must carry valid institute ID cards.
- Any misconduct or malpractice will lead to immediate disqualification.
- Registration amount is ₹400/- per team



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DIMENSION OF BOT:–

- Maximum dimensions: 30 cm × 30 cm × 30 cm (L × W × H)
- Maximum weight: 5 kg (including battery)
- Robots must be equipped with a picking mechanism such as:
 - Gripper
 - Claw
 - Magnet
 - Arm
 - Suction mechanism

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

SCORING CRITERIA:–

- Correct pick and place → Full points
- Incorrect placement → No points
- Partial placement → Half points
- Bonus points awarded for → Faster completion, accurate placement, innovative picking mechanism
- In case of a tie → Least time taken, fewer penalties, judges' decision (final)



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ARENA DETAILS:-

- The arena may be flat and stable or include obstacles.
- Designated pick-up and drop zones will be provided.
- Objects may include blocks, cubes, or cylinders.
- Object size and weight will be disclosed on the event day.
- Arena layout will be revealed 30 minutes before the match.
- Teams must handle all objects without causing damage.

POWER CONTROL:-

- Power supply must be on-board or wired only.
- Maximum allowed voltage: 12V DC.
- Wireless robots must operate on standard frequency bands.
- Teams must ensure no interference with other robots.
- Organizers are not responsible for signal interference.
- Use of RF jammers or high-frequency transmitters is strictly prohibited.

EVENT FORMAT/GAMEPLAY:-

- The robot must start from the designated starting zone.
- Objects must be:
 - Picked from the source area
 - Placed accurately in the target area
 - Dragging, pushing, or sliding objects is not allowed.
- The object must be placed completely inside the target zone to score.
- Elimination Round:- There are 3 rounds of 2 min each, and 9 boxes are placed in the middle of the Arena. The team which collects more boxes will be qualified for the net round.
- Touching the robot during the run is not permitted.



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PENALTIES:-

- Touching the robot during the run → Penalty / Disqualification
- Damaging arena or objects → Immediate disqualification
- Exceeding the time limit → Run termination
- Unsafe robot design → Disqualification

DISQUALIFICATION CONDITIONS:-

- Robot exceeding size or weight limits
- Manual interference during the match
- Unsafe robot construction or operation
- Violation of rules or misbehavior with officials

SAFTEY RULES:-

- Robots must not have:
 - Sharp edges
 - Explosive, flammable, or corrosive components
- Organizers reserve the right to stop any robot deemed unsafe at any time.

Frequently Asked Questions (FAQs)

- Who can participate? – Students from schools, colleges, and universities can participate. Each team must have 3–5 members, and participants must carry a valid institutional ID.
- Can we use LEGO or prefabricated parts? – No, LEGO kits, prefabricated parts, and ready-made industrial robots are not allowed; the design, assembly, and control logic must be developed by the team.

IMPORTANT NOTE:-Any manual interference, damage to arena or objects, or rule violation may result in penalty, disqualification, and rule updates by organizers at any time.