Rule Book

1.Robo Race

Robot Specifications:

- Contestants must design a robot, either wired or wireless, within specified dimensions.
- o Power supply will not be provided at the venue.
- o For wired bots, the length of the wire should be sufficient to cover the entire track, and the wire must remain slack throughout the run.
- o Maximum weight must not exceed 5 kg, and the size of the robot must be less than 30 x 30 x 30 cm, with a track width of 35 cm.
- The robot must be powered electrically only. Use of IC engines is not allowed.
- Batteries must be sealed, immobilized electrolyte type (gel cell, lithium, NiCad, or dry cells), and the electric voltage anywhere in the machine should not exceed 12 V DC at any point.

General Rules:

- Each team count consists of 4 members only, and students from same institutes can form a team.
- Unethical behavior may lead to disqualification, and faculty
 coordinators have the final authority in any matter during the event.
- The decision of the judges will be final and binding, and any argument with judges will result in disqualification.
- Robots must adhere to given specifications and should not damage the arena.
- o Each team member must carry their identity card.

- o No test practice will be allowed in the arena.
- o Robots must not leave behind any parts during the run, or it will result in disqualification.
- Certificates of Participation will be given to all teams, except those disqualified for disobeying competition rules.

Track Specification:

- o The track surface and course line may have unevenness.
- Obstacles will be placed on the race track to challenge the robots and potentially slow them down.

2.Line Following Race

Robot Specifications:

- Robot must move autonomously and start with a push a button. Any wireless/wired remote control is not allowed.
- o Power supply will not be provided at the venue.
- Maximum weight must not exceed 3 kg, and the size of the robot must be less than 25 x 25 x 25cm.
- o The robot must be powered electrically only.
- o Robot will be inspected before every game. Robots that are not made in conformity with the rules will not be allowed to participate.

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 coordinators have the final authority in any matter during the event.
- The decision of the judges will be final and binding, and any argument with judges will result in disqualification.

- Robots must adhere to given specifications and should not damage the arena.
- o Each team member must carry their identity card.
- No test practice will be allowed in the arena.
- Each team will be given 3 tries to achieve the team's fastest time. The
 fastest time out of the three tries will be taken as the team's final time.
- o Retry is allowed up to three times but the timer will not be stopped.
- Robot must be placed behind the starting line when retrying. Retry is compulsory every time the robot goes away from the track.
- o Only the two team members are allowed to enter the game field.
- o If there's a tie between the teams, a run-off will determine the winner.
- o If nobody finish the run, the farthest one run on tracks will wins.

3. Robo Soccer

Robot Specifications:

- Contestants must design a robot, either wired or wireless, within specified dimensions.
- o Power supply will not be provided at the venue.
- o For wired bots, the length of the wire should be sufficient to cover the entire track, and the wire must remain slack throughout the run.
- Maximum weight must not exceed 3 kg, and the size of the robot must be less than 25 x 25 x 25 cm.
- The robot must be powered electrically only. Use of IC engines is not allowed.
- Batteries must be sealed, immobilized electrolyte type (gel cell, lithium, NiCad, or dry cells), and the electric voltage anywhere in the machine should not exceed 12 V DC at any point.
- Teams are expected to compete fairly and maintain respect for competitors, referees, and equipment.

General Rules:

- Each team count consists of 4 members only, and students from same institutes can form a team.
- Matches are typically 5-10 minutes long, divided into two halves with a short break in between.
- The field is scaled down, with clear markings for the center circle, penalty areas, and goals.
- A standardized ball is used, often lightweight and easy for robots to manipulate.
- o **Ball Handling**: Robots must keep the ball in motion and are not allowed to "trap" the ball for extended periods (e.g., by holding it against their body or stopping it completely).
- No Damage: Robots must not use actions or mechanisms that damage the ball, the field, or the opponent.

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Gameplay Mechanics:

- Contestants must design a robot, either wired or wireless, within specified dimensions.
- Kickoff: Each match starts with a kickoff from the center. The robot must pass or move the ball forward from the kickoff position.
- Scoring: A goal is scored when the ball fully crosses the goal line within the opponent's goal.
- Out-of-Bounds: If the ball exits the field, it is placed back into play at a designated point, typically near where it went out.
- Robot Positioning: Robots must stay within the field boundaries during play.

Fouls and Penalties:

- Contestants must design a robot, either wired or wireless, within specified dimensions.
- Blocking: Robots cannot continuously block the ball without attempting to play it constructively.
- o **Intentional Interference**: Actions such as pushing the ball out of bounds intentionally or damaging the ball are penalized.
- Penalty Shots: Major fouls in the penalty area may result in penalty kicks or free kicks for the opposing team.