**Rule Book**

**1.Robo Race**

**Robot Specifications:**

* + Contestants must design a robot, either wired or wireless, within specified dimensions.
  + Power supply will not be provided at the venue.
  + 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 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.
  + Each team member must carry their identity card.
  + No test practice will be allowed in the arena.
  + 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:**

* + 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.
  + 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.
  + The robot must be powered electrically only.
  + 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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  + 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.
  + 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.
  + 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.
  + Only the two team members are allowed to enter the game field.
  + If there’s a tie between the teams, a run-off will determine the winner.
  + 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.
  + Power supply will not be provided at the venue.
  + 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.
  + **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.

**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.
  + **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.