Robo Soccer Rulebook

Overview:

Robo Soccer is an exciting competition where teams of remote-controlled robots compete to score goals against each other within a set time limit. Teams must design and operate their robots to navigate the field and outmaneuver their opponents, showcasing their technical skills and strategic thinking.

Categories:

- University and School teams will compete in separate pools.
- Separate winners and cash prizes will be awarded for both categories.

Team Structure:

- Each team can have a maximum of 2-4 members.
- Students from different institutes/universities can form a team collaboratively.

Robot Specifications:

- Maximum size: 12 x 12 x 12 inches.
- Maximum weight: 1 kg.
- Lego and EV3 kits are allowed.
- All components mounted on the robot will be counted in total dimensions.
- Robots will undergo inspection before the competition; exceeding limits leads to disqualification.

Control & Electronics:

- All transmitter/receiver modules allowed (e.g., Bluetooth, NodeMCU).
- Any microcontroller can be used.
- No limit on number/type of motors or drivers.
- Power source must not exceed 16V (4s DC).
- Unsafe or dangerous power sources will be disallowed.- Power banks may be used.

Gameplay Rules:

- Each round: Maximum 2 minutes.
- Timer starts on referee's signal.
- One timeout allowed per team (within 2 minutes).
- Once the robot moves, no team member can touch it.
- In case of jam-up >10 seconds, referee will order a restart.

Scoring:

- Each goal scored by rolling the ball into opponent's goal = 1 point.
- The ball can be kicked, dragged, or pushed.
- Robots cannot use **grippers or harmful mechanisms** violation = **-1 point**. Team with higher points at round end wins.

Disqualification Criteria:

- Attempting to damage the field.- Violation of fair play principles.

Multiple Robots:

- Teams may use multiple robots, but combined weight must not exceed 1.2 kg.