

## **ROBO SOCCER**

### **RULES AND REGULATIONS**

#### **ROBOT SPECIFICATIONS**

Size: at the start of a match, the robot must fit into a square box of side 50 cm, with no height limitation. The design to stretch a robot's body or its parts shall be allowed after a match has started, but must remain a single centralized robot.

Weight: The robot should not exceed 25kgs

Robot Classes: R/C or manual

Power specifications: The robot must be self powered, i.e. power supply must be on board. AC power supply will not be provided except for charging your batteries (in the breaks only). No limit for power supply.

#### **Rounds**

Round 1: 4 Teams will start the game. Two opposite teams will fight with each other for 2 minutes. Center dump will be opened. If opponent falls out of arena or filps the robot of opponent team, then those teams will be qualified for further rounds and remaining tteams may be given a second chance as a wild card entry in second round.

Round 2: 2 Teams have to fight with each other according to number of attacks by each team, points will be allotted and any team that makes opponent team inactive for more than 20 secs, that team will earn extra bonus points. Points rule will be declared at the time of the event.

Round 3: WILL BE DECLARED AT THE TIME OF EVENT ;)

## **ROBO SOCCER**

Problem Statement: Design a robot that plays SOCCER. The robot would compete against others in 1-1-1 matches.

#### **Rules**

- ❖ Each team will have to defend the goal on its side as well as score the goals on the opposite side.
- ❖ Each team can have a max of 5 team members. The weight limit of the robot for this competition is 5 kg.
- ❖ The dimensions of each robot should not exceed 30 cms.
- ❖ A team can make either one robot, or at max two (Manually controlled). Taking into consideration that the total weight of one or two robots, the controller and batteries should not exceed 5 kg. (this means that whatever components the participants enter onto the field should not be more than 5 kg)
- ❖ The start zone for a single or both robots is 500x500 mm (single or both the robots must be able to remain completely inside the start zone before the start of the game).

- ❖ The game will start at the count of 3 given by referee, followed by whistle. In case a team starts its robot before the whistle, the game will be restarted and a team making this mistake for more than 3 times will be disqualified.
- ❖ The field diagram will be uploaded on the website soon.
- ❖ The ball can be either dragged or pushed by the team, but it should not hold the ball.
- ❖ A robot can be extended to a dimension of 500x500x500 mm (independently) once it crosses the start zone.
- ❖ Each goal scored by a team by rolling the ball on the ground will fetch the team ONE POINT, the goal post will have hole on the top, any team scoring the goal from above will fetch 5 points.
- ❖ The voltage at any point on the electrical connections should not exceed 12 V DC.
- ❖ The game will last for 5 minutes.
- ❖ Maximum of two members per team will be allowed to remain close to field for operating the robots. In case of jam-up of robots' for more than 30 seconds, the robots will have to kick-off again at the order of the referee.
- ❖ In case of any discrepancy, the final decision rests in the hands of the co-ordinators.
- ❖ Any act of misbehaviour or misconduct will lead to immediate expulsion.
- ❖ The robots are not allowed to use grippers or actuators which are intended to harm to opponent robot.
- ❖ The competition is aimed at making the game a friendly foot ball match rather than a robo-war