

# ROBO WAR

**Maximum Team Size: 4 (Four members)**

**Entry Fee:** 200/- per Group

## **Guidelines:**

**Maximum Size:** 500mm × 500mm x 750mm.

**Maximum Weight:** 25kg. Excluding external power supply and controller unit.

**Robot Classes:** Remote Controlled or Manual (Wired Control).

**Voltage limit:** 12V DC (Institute will provide power supply)

+/-5% tolerance in weight, dimension & voltage is allowed.

Pneumatic/Hydraulic devices are not allowed.

The robot should not cause any damage to the arena or else it will be disqualified.

## **Rounds**

### **Round 1: Knockout Round**

One team will start the game. There are some flags with numbers. The team has to fall all flags sequentially in min time. Only 8 teams will be finalized through this round. If any tie/ knockout happens that time first priority is given to the number of flags falling & second for the time. If the robo has fallen out of the arena then the team will be disqualified for further rounds.

### **Round 2: Sumo War**

- In this round there is a sumo war between two teams. Match time will be 3min.
- If the robo has fallen out of the arena then the team will be disqualified for further rounds.
- External attachments (Weapons) are not allowed in this round.

### **Round 3: Robo War**

- In this round there is a robo war between two teams.
- External attachments (Weapons) will be allowed in this round.

## **Arena Specifications**

- Arena will be a Square area of dimension 16ft X 16ft.
- A rectangular area of 50cm X 50cm at the opposite corner of the arena will be the starting zone for the bot.
- The two starting zones will be placed at the opposite end of the arena for first & Second round.
- The arena may have holes, pebbles, sand areas etc. Pushing the opponent's bot into one of the areas will fetch points.
- The arena will be made of wood, and will be at a height of 8 inch above the ground.

- The arena will have a central region marked by a Circle.

## **Scoring**

### **Round 1**

- There will be 10 Checkpoints with each checkpoint fetching 1 point.
- Selection priority will be given for:-
  - 1) Points
  - 2) Minimum Time
- If the robo has fallen out of the arena then the team will be disqualified for further Rounds.

### **Round 2**

- Pushing a bot into a marble area will fetch 5 points
- No. of seconds the bot remains in the marble area the opponent team will fetch one point.
- Pushing a bot into a net area will fetch 5 points.
- No. of seconds the bot remains in the net area the opponent team will fetch one point.
- The central region fetches the 5 Points.
- Score will be calculated as:  $(5 \times \text{No. of times the bot pushes opponent into marble area}) + (1 \times \text{No. of seconds the bot remains in to the marble area the opponent team will fetch point}) + (5 \times \text{No. of times the bot pushes opponent into net area}) + (1 \times \text{No. of seconds the bot remains in to the net area the opponent team will fetch point}) + (1 \times \text{No. of seconds spent in the central region})$