

# RoboWar

## Event Description

Make a wireless or wired manual robot which can engage in one on one battle, within a time limit. The winners will be decided based on points scored during the battle or the team that knocks out the opponent first.

## Gameplay

- Two teams will engage in a battle at a time. Each team will consist of one bot.
- The match will be of 8 minutes duration (each of 4 minutes).
- Total of 3 minutes will be given extra to each team to repair in case of any failure of the bots.
- The team to score maximum points during the entire duration of the match or the team that knocks out the opponent wins the battle.
- If the bots are immobilize due to deadlock, the bots will again continue from the starting point
- The scores will be considered for declaring the winner only if the teams are unable to knock out their opponents during the 5 minutes duration of the match.
- Once a bot goes out of the battle zone, both the bots will start again from starting positions.
- No active weapon is allowed in the design of the bot.
- The match referee's decision will be the final judgement.

## General Rules

- Each team can consist of a maximum of 5 members.
- Members from different Colleges or institutes can form a team showing their valid id cards.

- No intentional damage to the arena is acceptable.
- Power or wires of the opponent bot cannot be cut intentionally.
- All the judgements rendered by the referee before, during or at the end of the match are final and may not be appealed.

## Specifications

### Problem statement

- Design and construct a remote or wired controlled bot capable of fighting one on one tournament.

## Dimensions and fabrications

The bot should fit in a box of dimensions 40cm\*40cm\*35cm (l\*b\*h) and can weigh up to 8 kg with all mechanisms fully executing motions. Length and width are measured to the extremities of the robot, i.e., includes any overhanging bodywork, weaponry or protrusions. The external device used to control the bot is not included in the size constraint.

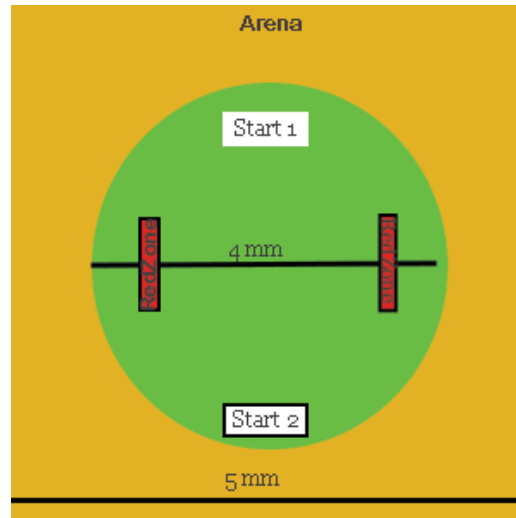
## Mobility

All bots must have easily visible and controlled mobility in order to compete.

### Methods of mobility include

- Rolling (wheels, tracks or the whole robot).
- Jumping and hopping is not allowed.

## Arena



## Game points

- For flipping the opponent bot, 10 points will be awarded to the team.
- If a team pushes the opponent bot to the Red zone 5 points will be awarded and if any bot moves to the red zone 5 points will be deducted.
- For immobilizing the opponent bot for 5 sec, extra 5 points will be awarded.
- The bot needs to be continuously in motion during the gameplay, if it is immobilized for more than 5 sec, 5 points will be deducted.
- Team will be given 5 points if they push the opponent bot out of the circle and 10 points if out of the arena.
- If the robot is able to completely immobilize the opponent bot i.e if it is able to knock out the opponent, then the team will be declared the winner of the match

## Battery and motors

- The machine can be powered electrically only. Batteries must be sealed, immobilized-electrolyte types (such as Li-ion, NiCd, NiMH or dry cells).
- Working voltages must not exceed 24 volts DC (mean voltage) at any point of time. All power connections must be of an adequate grade and adequately insulated. Cables must be routed to minimize the chances of being cut.

- All efforts must be made to protect battery terminals from a direct short and causing a battery fire, failure to do so will cause direct disqualification.
- Battery eliminators are allowed and power sources would be available at the venue for the eliminators.
- Amp flow, e-bike motors are not allowed.
- The teams are requested to bring their own adaptors.
- Charging of batteries will not be allowed during the match. It is suggested to have extra batteries ready and charged up during the competition to show that on advancing to the next level you don't have to wait or suffer due to an uncharged battery.

### **REGISTRATION**

Register your team at [jecroboworld.in](http://jecroboworld.in) or on spot registration before the start of the event on 31<sup>st</sup> March 2023. Only the team leader should register for the team. Registration fee is Rs. 500 per team.

### **PRIZES**

1st prize: - Rs. 8000

2nd prize: - Rs. 4000

DATE: - **31<sup>st</sup> March and 1<sup>st</sup> April from 11am onwards.**

### **VENUE**

Jorhat Engineering College (cycle stand)

### **CERTIFICATION POLICIES**

The top two teams i.e., the winner and the runners up will be given certificates on- spot of the event with the prize money. Rest of the teams will be given e- certificates of participation.

### **FOR ANY QUERIES REGARDING THE EVENT, CONTACT**

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