

Robowar

1. Problem statement:

Design and construct a wireless remote controlled robot capable of fighting one on one in weight category. The robots have to fight with other robot in arena using the weapons.

2. Dimensions:

The following size limitations apply for each robot,

Width – 600mm max,

Length – 600mm max,

Height – 600mm max.

Maximum weight: 15Kg (No tolerance).

The external device, which is used to control the machine, is not included in the weight constraint.

3. Controls:

The robot should be controlled using a remote controller and should be completely wireless. The combat robot should not have voltage more than 48 volt DC between any two points. (There is no limit in current requirement).

4. Mechanism:

Following mechanisms can be used:

- Cutters ,spinners
- Hammers
- Wedge

- Lifting mechanism
- Extended weapons
- Any other damaging weapon.

5. Restriction:

Following mechanisms cannot be used

- Use of inflammable liquids, projectile particles, explosives, or flame based weapons is strictly prohibited.
- Magnets must not be used in intention to harm the opponent.
- IC engines cannot be used.
- Batteries must be well protected.
- Weapons must not damage the arena.
- Any slippery material should not be used.
- Any part of machine should not be detachable.

6. Arena specifications:

- Arena is made by 16 feet x 16 feet platform at 1 feet height from ground level.
- Arena's platform will be covered by metal sheet.
- Platform will be surrounded by polycarbonate sheets for protection.
- Original arena may have some dimensional changes at the time of event.

7. Game play

1. The robot and opponent's robot will be placed in arena.

2. The robots will fight and try to score points according to the scoring rules.
3. There will be points for pinning, damaging, tackling and toppling the other robot.
4. In case of tie, there will be a tiebreaker, which will be decided by organizers.
5. The winner will be decided by more points, or if the other robot is immobile. Robot will be declared immobile if it cannot show linear motion of 5 inch in 10 seconds.
6. If robots become entangled or a crushing or gripping weapon is employed and becomes trapped within another robot, then the competitors should make the timekeeper aware, the fight should be stopped and the robots separated by the safest means.
7. Each round will be of 3 minutes.

Note - Fixture of matches will be decided on the base of registration. If more than registration of 12 team there will be a knockout base else league will be conducted. Also losing teams may have wildcard entry as odd number of teams reaches semifinals.

8. Judging criteria

1. Points will be given on the basis of aggression, damaging/pinning, control, strategy, defense.
2. Mobility of the robot after the match.
3. A robot with one side of its drive train disabled will not be considered immobilized if it can demonstrate some degree of controlled movement . This rule will also apply to an robot that becomes trapped by any part of the arena or arena hazards.

4. Final Time limits, Scoring and penalties rules will be announced on the day of event.

NOTE: Points given by the judges will be final .No argument will be tolerated, the team arguing with the judges can be disqualified.

9. Competition rules

1. Competition is open to all.
2. Participants have to carry their institute identity card along with them.
3. The organizers reserve all rights to change any of the above mentioned rules.
4. Change in the rule if any will be notified to registered participants and will be updated on the Megaleio website.(megaleio.sjcem.co.in)
5. Participants who misbehave may be asked to leave the competition area and risk being disqualified from the contest.
6. Robots or participants that cause deliberate interference with other robots or damage to the arena will be disqualified.
7. Participants are asked to take proper care that they are not damaging the arena

NOTE: please note that, no participants will be allowed to enter the arena during the entire duration of the match except during the hand touches. Participants are expected to abide by competition rules and should cooperate with organizers.

10. Safety and discipline

It is expected that all participant are disciplined and show good behavior towards other participants, judges, and coordinators. Strict actions will be taken on

participants not abiding the rules, which may also lead to disqualification of the team.

11. Team specifications:

- Maximum number of participants per team: 6(max).
- Students from different educational institutes can form a team.

12.Entry fee: 400 Rs.

13.Prize :-

1st prize :- 27000rs/-

2nd prize :- 17000rs/-

3rd prize :- 6000rs/-

14.Contact details:

Event Coordinator: Rohit Gupta – 7020746799

Event Co-Cordinator : Mansi Surti-8975545322

Himanshu Khandelwal- 8087016446

Ankit Mishra-7888225553

NOTE: The participants are expected to be present at the venue before the event commences. Late comers are liable to be disqualified. Certificate of participation will be awarded to all the participants.