



IIT Bhubaneswar

The Annual Techno Management Fest

WISSENAIRE

RoboWars

Introduction:

As they battle it out to claim victory in the war of the robots, RoboWars is a fantastic opportunity for robotic enthusiasts to demonstrate and advance their expertise in robotics. It is the battle of life and death.

Unquestionably, a significant change is coming as technology advances and humankind continues to progress. The end of an age has arrived, and the fundamental fabric of the cosmos will soon experience profound changes that will pave the way for a period of vigorous development. Wars are raging all across the universe, battles are breaking out, and a never-ending conflict is waging with the one goal of surviving.

In order to overcome the devouring crusade and become "the ultimate RoboWarrior," roll up your sleeves, tighten the bolts in your brains, and construct a warrior robot that can adapt to any situation.

"The strong survive, but the courageous triumph."

~ Michael Scott, The Warlock

Registration Guidelines:

- Team size can be from 2 to 6 members.
- Each team member must be a student of an authorized college/institute.
- Each team must have a unique name and a team leader who will be the point of contact for the organizers.

Robot Design Guidelines:

- Robots should fit in a box of dimensions 45cm x 45cm x 45cm (l x b x h).
- Robots should have a maximum weight of 15 Kilograms, with a tolerance of 10%. For calculating the weight, the entire final setup must be used, which includes battery packs and any other accessories.
- The robot should be only electrically powered. IC Engines or any form of fuel combustion engines are strictly prohibited.
- Participants are advised to keep at least two sets of battery packs at their disposal. Any kind of inconvenience caused due to delay of participation might result in a penalty, or in extreme cases, even disqualification.



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Participation Guidelines:

- The organizing committee in no way, compensate for any damage done to your bot at any point before, during, or after the competition. Any form of malpractice will only affect the tournament's judging decision.
- The use of any kind of signal jamming devices is strictly prohibited.
- Any kind of damage done to the arena or people nearby might result in a penalty, or in extreme cases, even disqualification.
- Matches shall be of 7 minutes of active fight time at maximum (exceptions possible in some cases) exclusive of any time outs.
- Once the robots have entered the arena, no team member can enter the arena.
- The teams will have to demonstrate their weapons and the match will begin only when it fits under the rules and regulations.
- The organizers reserve the right to change any or all the rules as they deem fit.
- The decision of organizers shall be treated as final and binding on all.

Match Guidelines:

- If a robot appears to have accidentally attacked the opponent, the act will not be considered aggression.
- Robots can have any kind of magnetic weapons, cutters, flippers, saws, lifting devices, spinning hammers etc. as weapons with following exceptions and limitations:
Liquid projectiles, Any kind of inflammable liquid, Flame-based weapons, High power magnets and electromagnets.

Judging Criteria:

- A robot is declared victorious if its opponent is immobilized.
- A robot will be declared immobile if it cannot display the linear motion of at least one inch in a timed period of 10 seconds. A bot with one side of its drivetrain disabled will not be counted out if it can demonstrate some degree of controlled movement. In case both the robots remain mobile after the end of the round, then the winner will be decided subjectively.
- A robot that is deemed unsafe by the judges after the match has begun will be disqualified and therefore, declared the loser. The match will be immediately halted and the opponent will be awarded a win.
- If a robot is thrown out of the arena the match will be stopped immediately, and the robot inside the arena will automatically be declared as the winner.



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- Robots cannot win by pinning or lifting their opponents. Organizers will allow pinning or lifting for a maximum of 20 seconds per pin/lift then the attacker robot will be instructed to release the opponent. If, after being instructed to do so, the attacker can release but does not, there a robot may be disqualified. If two or more 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.
- Points will be given based on aggression, damage, control and strategy.
- Aggression is judged by frequency, severity, boldness and effectiveness of attacks deliberately initiated by a robot against its opponent. Control means attack the robot at its weakest point, use weapons and minimize damage caused by the opponent. Damage is when a robot directly or indirectly harms an opponent through deliberate action. Strategy is defined as a robot exhibiting a defense plan that guards its weakness against strength of the opponent.

NOTE: Qualification of a robot to the next level is subjective and totally on the decision of the judges.