

ARMAGEDDON

“It is better to stand and fight. If you run, you’ll only die tired.”

Problem Statement

Introduction

The Bay-blade battle with energy of various supernatural creatures was a great childhood love of each and every one of us. Taking the much larger concept in reality, we are hear introducing the “Robowar” event in our tech fest “TECHZION”, which would be having the excitement of the final battle. With the robot designed and implemented by the students themselves and energies of great researches and day-night hard work, the competition will be full of enthusiasm for techies.

Be ready and holds your seats to witness your sparks of clashing pincers, axes and saw tails. With current in the veins and blood in the wire, here comes the most exciting, the most thrilling and the most awesome war, the robowar is an amazing arena in our institution’s campus.

So be there at time you won’t get a chance to blink till the very end.

General Rules:

- Each team can have a maximum of 5 participants.
- Teams will be selected on the basis of the abstract submitted.
- Certificates of Excellence will be awarded to the top two teams.
- If there is any ambiguity in the selection of the weapon systems, please clarify the same with the event organizers to avoid further confusion.
- If the organizers doubt the safety of viewers due to a particular bot, then that team might be denied participation.
- The time measured by the organizers will be final and will be used for scoring the teams. Time measured by the contestant by any means will not be considered for scoring.
- In case of any disputes/discrepancies, the organizers’ decision will be final and binding. The organizers reserve the right to change/alter any of the above rules as they deem fit.

Gameplay:

- Group stage match will consist of 3 rounds of 5 min, and the knockout stage will consist of 3 rounds of 3 min.
- Every two consecutive rounds will have a time gap between them.
- If a bot is thrown out of the arena, the round will stop immediately, and the bot still inside the arena will automatically be declared as the winner of that particular round.
- Bots cannot win by merely lifting their opponents. Organizers will allow lifting for a maximum of 20 seconds for each lift, and then the attacker bot will be instructed to release the opponent.
- A bot is declared victorious if its opponent(s) is/are immobilized.
- A bot will be declared immobile if it cannot display linear motion of at least two inches in 30 seconds.

- In case all the bots remain mobile after the end of the round then the winner will be decided subjectively.
 - A bot that is unsafe, as deemed by the judges, will be disqualified immediately and for the knockout stage, the opponent bot will be declared as the winner.
 - Points will be given by aggression, damage, control, and strategy.
1. **Aggression** – Aggression is judged by the frequency, severity, boldness, and effectiveness of attacks deliberately initiated by the bot against its opponent. If a bot appears to have accidentally attacked an opponent, that act will not be considered Aggression.
 2. **Control** – Control means a bot can attack an opponent at its weakest point, use its weapons most effectively, and minimize the damage caused by the opponent or its weapons.
 3. **Damage** – Through deliberate action, a bot either directly or indirectly reduces the functionality, effectiveness or defensibility of an opponent. Damage is not considered relevant if a bot inadvertently harms itself.
 4. **Strategy** – The bot exhibits a combat plan that exploits the bot's strengths against the weaknesses of its opponent. The strategy is also defined as a bot presenting a deliberate defense plan that guards its weaknesses against the strengths of the opponent.

Dimensions and Weight:

- The bot should fit in a box of dimension **750mmx750mmx1000mm** at any given point during match.
- The bot should not exceed **54.45 kg** of weight including the weight of pneumatic source/tank (Controllers are not included).
- The bot may be wired or wireless.
- There is an additional point for using wireless bot.

Battery and Power:

- The bot must be powered electrically only. Use of an IC engine in any form is not allowed.
- Onboard batteries must be sealed, immobilized-electrolyte types (such as gel cells, lithium, NiCad, NiMH, or dry cells).
- Voltage must not exceed 36 volts between any two points.
- All efforts must be made to protect battery terminals from a direct short circuit and causing a battery fire, failure to do so will cause immediate disqualification.
- Use of damaged, non-leak proof batteries may lead to disqualification.
- Change of battery will not be allowed during the match.
- It is suggested to have charged up and an extra battery ready during the competition so that the team, for the next match, must have their bot prepared on time.

Weapons: Chemical weapons and inflammable liquids are strictly prohibited.

Arena:

- The Arena base is made up of Wooden Cardboard with dimensions of **180cm X 270cm**.
- The boundary for the arena will be **15 cm** Wooden Cardboard.
- There may be nails in sides of arena.

NOTE: - All the combat bots should be operated only after meeting the necessary security clearance.

It is advised that the participants operate the bot at their own risk and shall be responsible for any mishaps caused due to their negligence. Techzion, BIET Jhansi shall enforce strict security measures during the event. Any security glitches found in the bot by the judges shall be disqualified immediately.

Judging Criteria:

- Damaging the opponent's bot with weapon will earn 5 points.
- Pushing the opponent's bot in the pit of arena (mentioned on arena) will earn 10 points.
- If a bot will touch the wall of the arena by itself then 5 point will be deducted and if pushed by bot of opponent then opponent will earn 5 points.
- No negative point for repairing time.

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