



Heavy Weight Robo War: Official Rule Book

The competition will be organized into two categories:

Level 1: This category is open to all school and college students aged 12 and above.

Level 2: This category is open to all university students.

1) General Rules:

- Each participating team may consist of upto 4 members.
- If the students from different Institutes/Universities want to join hands and form a team in collaboration, they can do so.
- No team member will be added further once the registration is done.
- If you want to register for the competition you must need to fill the form on website.
- Disqualification will be made on the spot, if any of the team members are found arguing (using slang/physical contact) with the organizing team or the member of another team.
- Organizing team have the right to amend the competition rules/duration at any time.
- The panel of judges for each competition will be comprised of members from the relevant fields and past experiences in competitions.
- The decision of judges will be final.
- If you win a competition, we will notify you at the end of the whole event.
- The prize will not be transferable to another team.
- No part of a prize is exchangeable for cash or any other prize.
- Incorrectly completed entries will be disqualified.

2) Game Rules:

- The objective of the game is to damage, destroy, flap upside down, or push the opponent's robot to the side or corner of the arena.
- Each round will be a maximum of 5 minutes, unless a match terminates early.
- Timing shall start once the start signal is given.
- Once the Robot moves, team members will not be allowed to touch the robot.
- The teams with the maximum points will win the round.
- If at any time during a match, a robot becomes stuck on the arena floor due to being pushed by an opponent and cannot free itself within 20 seconds, the Referees may authorize an intervention to assist in freeing the robot. This intervention time will not be included in the total match duration.
- If the robot is immobilized for 20 seconds due to some reason, timeout is allowed.
- If a team calls a timeout, they will be allowed to enter the arena for a period of two minutes, during which they cannot bring any tools inside. The team can use this time to reset the robot, unstick it or fix some minor parts with their hands.



- Three timeouts for each team are allowed during the match, and any time taken for the timeout will not be added to the overall time of the match.
- After 3 timeouts it will be considered a knockout.

Points Allocation Chart:

| | |
|---|-----------|
| Damaged any part of an opponent robot | 10 Points |
| Disabled the opponent robot (timeout taken by opponent) | 15 Points |
| Pushed the Robot to the side or corner of the arena | 10 Points |
| Flapped upside down the opponent robot | 10 Points |

*Damage will only be counted for visible parts of the robot that are damaged or torn out. Scratches or superficial marks will not be counted as damage. However, any part of the robot such as metal or sheet that is taken out of the robot will be counted as damaged. Additionally, any damage caused to the robot's functions such as weapons, motors, or wheels will also be considered as damage. The judges will assess the damage at the end of the match.

- The following behavior shall be considered for disqualification by the referee and the team could possibly be disqualified: Attempting to damage the game field. Performing any act that fails to comply with the spirit of fair play

3) Robot Specifications:

a) Dimensions and Weight:

- The maximum size of the robot should be 36 x 36 x 36 inches.
- All components mounted on the robot will be counted as part of the robot's total dimensions.
- The maximum weight of the robot should be 60 kg.
- All robots will have to pass prior inspection before entering the competition.
- Any robot exceeding these limits will be immediately disqualified.
- Robots weighing more than 60 kg will incur a penalty of 2 points per 1 kg for any additional weight. For example, a robot weighing 62 kg will have 4 points deducted from its score. If a robot's weight exceeds 65 kg, it will be disqualified from the competition. The disqualified robot may be allowed to reduce its weight within a given time frame, if failed then it will not be allowed to participate further. It is the responsibility of the team to ensure that their robot meets the weight requirements and that any modifications made during the competition do not cause the robot to exceed the weight limit. The weighing of the robots will be done before the start of the competition, and the weight limit will be strictly enforced.
- Robots that weigh under 40 kg will be awarded 10 additional points at the start of the match. This rule is designed to encourage the development of smaller, more agile robots that can compete with larger, heavier robots. Additional points will be added to the robot's starting score and will not affect the scoring system during the match
- It is important to note that the weight of the robot will be determined before the start of the match, and any modifications made during the competition that cause the robot to exceed the weight limit will result in disqualification.

b) Electronics:

- The robot must be remote-controlled and have an on/off button.
- All types of transmitter and receiver modules are allowed such as Bluetooth module, etc.
- Any type of microcontroller is allowed
- There is no limit on the number and types of motors used in the robot.
- Any kind of motor driver IC or module can be used.
- Power sources that are considered dangerous or unsuitable by the judges will not be permitted.
- The voltage of the robot electrical power source must not exceed 48-volt DC.
- Power banks may be used.
- The robot must not have any wired connections with its surroundings.
- All efforts must be made to protect battery terminals from a direct short and causing a battery fire.

c) Weapons:

Allowed weapons:

- Small, non-offensive pyrotechnics - e.g., flash puffs - May be allowed at the judge's discretion.
- Tethered projectiles are allowed, but the tether may not exceed 15 inches in length, (measured from the center of the robot to the tip of the projectile).
- Circular saws, carbon or steel cutting discs can be used.
- Commercial blades - e.g., bayonets - must not exceed 20cm/8inches in length.
- All sharp edges of weapons, including fixed weapons - e.g., spikes -and robot bodywork in general that is sharp, MUST be fitted with adequate protection that must be always in place except in the arena. (These guards are not included with the overall weight of the robot)

Prohibited weapons:

- All pyrotechnics: explosives, flames, firearms, corrosives, liquids, electronic devices e.g., radio jamming, heat-guns, Tesla coils - are banned.
- Untethered projectiles are not allowed.
- Heat and fire weapons are NOT allowed.
- Flammable liquids or gases.
- Explosives or flammable solids such as: DOT Class C devices Gunpowder / Cartridge Primers Military Explosives, etc.
- Light and smoke-based weapons that impair the viewing of robots by an Entrant, Judge, Official or Viewer.
- Smoke or dust weapons Lights such as external lasers above 'class I' and bright strobe lights which may blind the opponent.
- Hazardous or dangerous materials are forbidden from use anywhere on a robot where they may contact humans, or by way of the robot being damaged (within reason) contact humans.
- Entangling weapons are NOT allowed at this event.
- Liquid weapons are NOT allowed at this event.
- Powdered material or chaff weapons are NOT allowed at this event.



- Weapons must always remain connected to the machine during operation, i.e., if any weapon is released out from the body of the robot either intentionally or unintentionally, the robot will be immediately disqualified upon the decision of the judges' panel.
- Any weapon that can pose an injury risk to the spectators is not allowed e.g. loosely fitted spinning weapons etc. The teams which use such a robot will be asked to remove such a weapon before the contest. If they fail to remove the weapon, the team will be disqualified.

4) Important Dates

- **Competition Dates:** October 12-13, 2024

5) Collaborative Partner

This competition will be hosted in collaboration with Robo Automators.

6) Contact Information

For any questions or additional information, please contact us at:

- **Email:** contact@teknofestpakistan.com
- **Website:** www.teknofestpakistan.com
- **Phone:** +92 332 2825495 | +92 334 2995610