

# ROBO WAR

## TECHNICAL SPECIFICATION

---

---

The following section details the rules and specifications regarding the robot; please be sure to read them carefully and refer to them as you design your robot. **The robot should not be of jumping and hopping type.**

### TECHNICAL INSPECTION:

- Robots must pass a technical inspection by the Referee and/or assigned Staff prior to being permitted to compete. The Referee would check whether the size of the robot is matching the criteria, any loosen component, possible impact of attack which may cross the safety area etc.
- Robots that fail technical inspection may not compete until the Team rectifies identified problems and passes a re-inspection. There are no limits on the number of re-inspections; however, as soon as a team fails, **inspecting Staff members will move to the next robot to be inspected. This rule does not extend or invalidate any time limits during the Competition.**

### SIZE & WEIGHT CONSTRAINTS:

- The robots must fit in a box with dimension **50cm × 50cm × 50cm** (L× B× H) at the beginning of a Battle. **There are no size constraints once the Battle has begun, robot can expand its parts after the battle starts.**
- The maximum weight allowed is **8kg** including the weight of pneumatic source/tank (excluding batteries). Weight will be measured at the time of inspection before starting the competition.

### RADIO CONTROL REQUIREMENTS:

Radio systems **MUST NOT** cause interference to other frequency users. Only the 2.4ghz DSS (Digital Spread Spectrum) frequencies are allowed. Radio telemetry is permitted on 433MHz and 2.4GHz. (Maximum range is 15meter).

## **ELECTRICAL POWER:**

The robot must be powered electrically only. Use of an IC engine in any form is not allowed. All robots must incorporate a way that can be activated to remove/turning off power to all the weapon system and drive systems without causing harm to the human activating it. Voltage must not exceed 36V DC. Note that batteries may have a higher voltage during charging and care must be taken not to exceed these limits. **Change of battery will not be allowed during the match however he can change the battery in between matches.**

## **WEAPONS RESTRICTIONS:**

- **Invisible Damage:** Weapons designed to cause invisible damage to the opponent are forbidden. This includes but is not limited to Electricity, Radio Frequency, Radio Frequency Noise, and Electromagnetic Fields.
- **Flame system:** Flame systems are not allowed
- **Entanglement:** Entangling material such as nets, fishing line, cables, string, glues or tapes and any similar devices are forbidden to use.
- **Smoke and Light:** Smoke and light-based weapons, which impair the viewing of robots by an Entrant, Judge, Official or Viewer, are forbidden to use. This includes, but is not limited to; Smoke or Dust, Lights such as external lasers and bright strobe lights, which may blind the opponent.
- **Hazardous Materials:** 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.
- **Explosives:** Explosives of any kind are not allowed as a weapon system for the robot

## **THE FIELD ARENA:**

- The size of arena will be 8ft ×7ft
- The arena surface is generally smooth but may have small irregularities

\*\*\*\*\*