



#### **ROBO-DANGAL RULES FOR AGRESITA 2023**

### A. Specifications:

- 1. The bot should be fit in a box of 40 x 30 x 20 (length x breadth x height) including the length of hood.
- 2. The weight of the ROBOT should not exceed **5kgs**.Bots with any kind of claws are not allowed.
- 3. Ready-to-made robots are not allowed.
- 4. Bots which are equipped with any kind of weapon are not allowed.

#### **B.** Mobility:

All robots must have easily visible and controlled mobility in order to compete. Methods of mobility include:

- 1. Rolling (wheels, tracks and should have 4 wheels).
- 2. Non-wheeled bots are not allowed.
- 3. Jumping and hopping are not allowed.

Mobility methods that are NOT allowed:

The robots should not secure itself on the ring surface by using suction cups, diaphragms, sticky treads, glue or other such devices.

#### **C. Robot Control Requirements:**

- 1. The robot can be controlled by wired or wireless medium.
- 2. Remote control systems from toys might be used. Remote control systems available in the market may also be used.
- 3. Non-standard or self-made remote-control systems must be first approved by the organizers of the event.
- 4. Every robot should have a proper Activation and Deactivation Switch in order to disable the robot in case of an Emergency.





### **D. Battery and Power:**

- The machine must be powered electrically. 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).
- 2. The electric voltage between any 2 points on the machine should not exceed 12V DC at any point in time. Participants will have to bring their own converters for standard power supply according to Indian standards.
- 3. Participants must protect the battery terminals from a direct short and causing a battery fire, failure to do so will cause direct disqualification.
- 4. Use of damaged, non-leak proof batteries may lead to disqualification.
- 5. Change of battery will not be allowed during the match.
- 6. Special care should be taken to protect the onboard batteries. If the judges find that the battery is insufficiently protected, the team will be disqualified immediately.
- 7. The supply from the battery to all the power systems should qualify the following fail-safes:
  - a. A manual disconnect (switch) that can be turned off without harming the person doing it, i.e. No body parts should come in the way of the switch.
  - b. Manual emergency stop that can be triggered through the radio controller

#### **General Rules:**

- 1. A team can have maximum of 2 members.
- 2. No two teams should participate with the same robot(s) for this event.
- 3. A team can have participants from different schools or colleges.
- 4. The organising team will NOT be responsible for any injury to any person or loss of life or property to anyone participating or witnessing the event.





# Rules & Regulation of Robo Dangal

- 1. A robot will be declared immobile if it cannot display the linear motion of at least one inch in a time period of 10 seconds
- 2. 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.
- 3. 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.
- 4. If a bot gets stuck inside the arena due to the deformity of the arena itself.

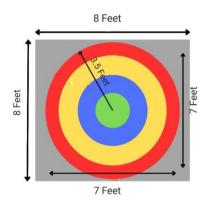
  The timer will be stopped and the bot will be released by the safest means.
- 5. In case of draw extra time will be given and the one who has secured points earlier will be winner.

### **Point distribution table**

It will be disclosed at the venue/at the time of competition.

# **Arena Specification**

The out-to-out dimension of the arena will be 8ftx8ft (length x breadth).



**Timing:** 12:00 PM.

**Venue:** At front of Mechanical Department.

For any query, contact student ambassador

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