



STEMI FON

Robo Sumo Rules and Regulations

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1. Objective

Design and build a robot capable of remotely pushing the opponent out of the ring (sumo arena) while adhering to all size, weight, and operational rules.

2. Team Composition

- Each team may consist of 1 to 3 members.
- Starts with **Grade 6 to Grade 12**
- Only one robot is allowed per team.
- Teams must build their own bots; **ready-made or pre-built robots are strictly prohibited.**

3. Robot Specifications

3.1 Size

- The robot must fit within a 30 cm x 30 cm x 60cm height square at the start of the match.
- It must remain a single centralized unit.
- Robots violating this rule will lose the match.

⚠ Exception: Loose parts (e.g., screws, nuts, etc.) with a combined mass < 5 grams falling off do not result in disqualification.

3.2 Weight

- Maximum weight: 7 kg (including battery).
- A 5% tolerance is allowed (up to 7.35 kg).

3.3 Power Supply

- Only Li-Ion or Li-Po batteries are allowed.
- Batteries must be securely mounted and insulated.
- Voltage limit: 12V maximum.

4. Control System

- Robots must be Manually operated and verified by tournament officials.
- Remote-controlled robots must:
 - Start only on an official signal.
 - Use digitally-mated pairs (e.g., Bluetooth, Wi-Fi, RF, Flysky).

5. Field and Match Format

- Matches are held in a circular sumo ring (dimensions as specified by organizers).
- A robot wins by pushing the opponent completely outside the ring.
- The match begins on the referee's signal.

6. Markings and Identification

- Robots must have a visible top marker or unique ID tag.
- Unmarked robots are not allowed to participate.

7. Light and Sensor Restrictions

- Robots must not emit infrared light.
- IR-based sensors may be used only if:
 - They do not interfere with other bots.
- Robots must not use IR-reflective external materials.
 - Small reflective parts may be used if they don't affect others.

8. Magnetic & Signal Interference

- Bots must not produce magnetic or wireless interference that affects other bots. Any bot found doing so may be disqualified.

9. Mobility Requirements

- The robot must be able to move in any direction.
- Robots restricted to only linear movement are not allowed.

10. Build and Materials

- Any robotic parts or materials may be used as long as:
 - The bot complies with all rules.
 - The design and construction are original and not from commercial kits.

11. Judging and Refereeing

- Matches will be supervised by event referees.
- Referees may inspect and test robots.
- All referee decisions are final.