

ROBOYUDH'26 RULE BOOK

ROBOSUMO

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I. INTRODUCTION

Robo Sumo is an exhilarating robotics competition where two robots battle to push each other out of a circular arena. This event challenges teams to design and build autonomous or remote-controlled robots within specific weight and size limits. It tests engineering, strategy, and control, with scoring based on successful pushes, tactical maneuvers, and compliance with competition rules.

II. ROBOT SPECIFICATIONS

1. Weight Categories:

Heavyweight: Up to 5 kg

2. Size Constraints:

Robots must fit within 30 cm x 30 cm x 30 cm at the start of the match.

3. Power Source:

Battery-operated only (no combustion engines), only mounted onto the bot

Maximum voltage: 24V

4. Control System:

Robots should only be remotely controlled.

Wireless communication must comply with event standards.

5. Weapons & Attachments:

No destructive weapons allowed.

Pushing mechanisms are NOT allowed; scoops are permitted.

III. ARENA SPECIFICATIONS

1. Shape: Circular ring (Dohyo)

2. Material: Plywood

3. Dimensions: 180cm diameter

4. Border: White boundary line indicating the edge of the ring

IV. EVENT STRUCTURE

1. The competition will follow a knockout format.
2. The matchup will consist of 5 rounds, each lasting 1 minute.
3. The winner will be the best of 5 rounds.
4. In any round, the team that leads the opponent by 5 push-off will win the round based on Technical Superiority.

V. RULES AND REGULATIONS

1. Robots are placed inside the ring with a countdown before activation.
2. Allowed actions include pushing, lifting, flipping, and defensive maneuvers.
3. Prohibited actions include damaging opponent robots, using liquids, fire, explosives, or external power sources
4. Each team can consist of up to 5 members.
5. Pre-match verification of weight, size, and safety compliance is mandatory.

Rules subject to change by the head coordinator

VI. MARKING SCHEME / CRITERIA

1. Pushing the opponent out of the arena: 1 point
2. The winner is decided by total points at the end of each round.

Tournament type: Knockout Tournament

VII. SAFETY GUIDELINES

1. Safety Guidelines Robot Safety:

A power cutoff switch is mandatory.

2. Arena Safety:

Only authorized personnel are allowed inside the arena.

3. Participant Safety:

No direct physical contact with robots during matches

VIII. PENALTIES

1. Disqualification Minor Penalties (Warnings issued):

- Deliberate stalling
- Exceeding time limits

2. Major Penalties (Disqualification possible):

- Intentional destruction
- Safety violations
- Use of prohibited weapons
- Interfering with other teams
- Failure to comply with the event timeline

IX. APPEALS AND DISPUTES

1. Referees and event judges will handle all disputes and their decisions are final.