

# BOT SUMO

## [5 KG CLASS]

### RULES & REGULATIONS

ROBOVISIONÄR'26 // MISSION M-04 // 24-25 SEPTEMBER 2026

Five kilograms of torque. One ring. Push or be pushed.

| ENTRY FEE | TEAM | EXTRA MEMBER | PRIZE POOL |
|-----------|------|--------------|------------|
| ₹700      | 1-4  | +₹250        | ₹20,000    |

#### // SECTION 01

### ROBOT SPECIFICATIONS

| PARAMETER     | SPECIFICATION                                                                                                                  |
|---------------|--------------------------------------------------------------------------------------------------------------------------------|
| Weight        | Max 5 kg. A tolerance of 5% is allowed.                                                                                        |
| Size at start | Must fit a 30 × 30 cm box, freestanding. Height unlimited.                                                                     |
| Voltage       | Max 16.8 V at any point in the circuit, at any time.                                                                           |
| Chassis       | Metal, composite or printed plastic. No readymade toy bodies or LEGO-type kits. Salvaged motors, ESCs and RF modules are fine. |
| Master switch | Recommended. Clearly labelled, reachable from outside, no tools, cuts all drive power.                                         |

**1.1 Control:** 2.4 GHz radio. It must support dual-frequency operation or channel hopping.

#### // SECTION 02

### BANNED

**2.1** Anything that damages the ring or is built to destroy the opponent — spinners with cutting edges, hammers, saws, drills. Normal pushing and banging is fine.

**2.2** Sticky substances for traction.

**2.3** Downforce devices — vacuum pumps, fans, magnets.

- 2.4 Liquids, powders, gas, flame, projectiles, nets, ropes, tape.
- 2.5 Pneumatics, hydraulics, IC engines, mains power.
- 2.6 Jamming — IR floods, RF interference, strobes aimed at opponent sensors.
- 2.7 Sharp edges that can scratch the ring, another bot or a person. Officials may require an edge to be taped.
- 2.8 **Allowed:** wedges, plows, scoops, lifters, flippers, dribblers, non-cutting rollers, any sensors, any drive layout.

## // SECTION 03

**THE RING**

| PARAMETER      | SPECIFICATION                                                     |
|----------------|-------------------------------------------------------------------|
| Diameter       | 150 cm                                                            |
| Surface        | White matte                                                       |
| Border         | 5 cm black, inside the ring                                       |
| Starting lines | Two black lines at the centre, 20 cm long, 2 cm wide, 20 cm apart |

- 3.1 The black border is inside the ring. Touching it is safe. Touching the floor or the side of the platform is out.
- 3.2 No practice on the competition ring at any time.

## // SECTION 04

**HOW A MATCH WORKS**

- 4.1 The bot with the higher score wins the match.
- 4.2 **Starting a round:** both handlers bow, then place their bot in their own half, on or behind their starting line, with no part past the front edge of the line toward the opponent. You may sit off to the side. Handlers clear the ring and the judge calls start.
- 4.3 You score a point when the opponent is pushed so that any part of it touches outside the ring, including the side of the platform; goes out on its own; breaks into pieces; or commits a foul.
- 4.4 A bot that flips over does not lose a point for flipping. The round continues.

- 4.5 The round is stopped and restarted when both bots are locked or circling with no progress for 5 seconds; when both stop, or move without progress, for 5 seconds without touching; or when both go out at the same time and the judge cannot tell who was first.
- 4.6 If one bot stops moving first and stays stopped for 5 seconds, it is declared as having **no will to fight** and the opponent scores.
- 4.7 The judge may extend any 5-second count up to 30 seconds if progress is unclear.
- 4.8 If the scores are level at the end of the match, the judges decide on technical merit, number of valid pushes, fouls and conduct.
- 4.9 **Technical resets:** 3 per match. Use one to right a flipped bot or clear a jam. It earns no points. Taking longer than 30 seconds to resume is a foul.

## // SECTION 05

**FOULS**

- 5.1 **Minor fouls** — two of these gives the opponent a point: entering the ring during a live round; demanding a stop without reason; taking over 30 seconds to resume; moving after the stop call; repeated bad placement; unsporting conduct.
- 5.2 **Major fouls** — each one gives the opponent a point, and two loses the match: using a banned device or material; deliberately damaging the ring; touching a live bot in the ring; transmitting outside your own match; competing with an undeclared modification.
- 5.3 **False start:** the first is a restart and a warning, the second gives the opponent a point, the third loses the match.
- 5.4 **Instant disqualification:** tampering with another team's robot, faking your weight, hiding a banned device through inspection, insulting officials or opponents, fighting.

## // SECTION 06

**INSPECTION & COMPLIANCE**

- 6.1 Every robot must pass inspection before its first match. Fail and you get 10 minutes and one retry.
- 6.2 Officials may re-inspect any robot at any time, including after a win. Non-compliant means the win is forfeited.
- 6.3 Any change to weight, size, power or control means re-inspection before your next match.
- 6.4 Team size is 1 to 4. Only one member approaches the ring. Nothing is clarified individually after the captains' briefing.

## // SECTION 07

**JUDGES' AUTHORITY**

- 7.1** The judges' reading of these rules is **final and binding**. Where a rule is unclear, silent, or disputed, the judges decide how it applies, and that decision holds for the rest of the event.
- 7.2** Judges may **modify, add to, relax or clarify any rule** at any point — before, during or after a round — where the arena, the field of entries, a safety concern or the conduct of the event calls for it. This includes rules printed in this book.
- 7.3** Every such decision is made on a **fair and equal basis**. A ruling given for one team applies to every team in the same situation, and no change will be made to favour or penalise a particular entry. Judges will state the reasoning on request.
- 7.4** Changes take effect from the moment they are announced. They are not applied backwards to completed runs or matches unless every affected team re-runs under the new ruling.
- 7.5** Raise any question about a rule with the organisers **before your run or match ends**. Nothing is reopened once the result is declared.

## // IN SHORT

Two robots, one ring, **5 kg** each. Push the opponent out or leave it unable to fight. No weapons, no downforce, no sticky tyres. **Higher score wins the match**, and the judges break a tie on technical merit and conduct. Judges have the final read on every rule and may adjust one during the event — always announced, and always applied equally to every team.

## // CONTACT

For any queries regarding this event, contact

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## // COMMUNITY

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