

MINI-SUMO ROBOT

Sci-Fi Fare 2026

“Turning Vision to Victory!”

Organized by: EEE Club, Department of Electrical and Electronic Engineering

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Overview

Two fully autonomous robots compete inside a circular ring. The objective is to push the opponent out of the ring or force it to fall off. The first robot to win **two rounds** wins the match. The tournament follows a **double-elimination** format.

Robot Specifications

All robots must be **fully autonomous**. After placing and starting the robot, no remote control, tether, or external intervention is allowed.

- **Mass:** Maximum **1000 grams** (verified by official scale). No helium balloons or weight-reducing devices.
- **Size (at start):** Maximum **15 cm width** and **20 cm length**. No height limit. After movement begins, the robot may expand, twist, or change shape.
- **Harmlessness:** Robots must be non-destructive.
- **Prohibited:** Smoke/fire, leaking liquids, projectiles, jamming devices, nets/ropes, sticky substances, or any harmful behavior. Normal collision damage is acceptable.
- **No Flying:** Robots must remain in contact with the ring surface. No lift, flying, or hovering (floating sensors/cameras allowed if main body stays pushable).
- **Traction:** Suction, magnets, and sticky wheels are **strictly prohibited**. Wheels will be tested on paper — if paper lifts, the robot is disqualified.

Note: Each team may use only **one robot**. Robots will be inspected before every match.

The Ring (Arena)

- Diameter: **77 cm** (flat, rigid surface — wood, aluminum, or steel).
 - Surface: Black with a **2.54 cm (1-inch)** wide white border.
 - Two brown **starting lines** marked at the center.
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Match Rules

- **Format:** Best of 3 rounds (first to win 2 rounds wins the match).
 - **Placement:** Higher-ranked robot (or previous winner) placed first. Robots must be placed behind their respective starting lines and cannot be moved after placement.
 - **Starting Procedure:**
 - Robots must have a clear start mechanism (button, timer, etc.).
 - Referee says “Go”. Robots must remain **completely motionless for 5 seconds** after activation.
 - **False Start:** Moving before 5 seconds = false start. Two false starts = loss of the round.
 - **Out of Bounds (Loss of Round):**
 - Any part of the robot (or detached piece) touches outside the white border.
 - Robot lands outside while resting on the opponent.
 - **Referee Stoppage:**
 - Restart possible after 3 minutes of no progress, deadlock, or entanglement.
 - Round may be ended and a winner declared in case of rule violation.
 - **Contestant Stoppage:** Stopping the round manually = forfeit that round.
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Disqualifications

- Violating size, weight, or autonomy rules.
 - Using prohibited mechanisms (flying, sticky traction, jamming, weapons, etc.).
 - Damaging the ring or showing harmful behavior.
 - Unsportsmanlike conduct or refusing referee instructions.
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Code of Conduct & Other Conditions

- Fair play and respect for opponents and referees are mandatory.
- Judges' and referees' decisions are **final**.
- The organizing committee reserves the right to modify rules if necessary.
- All participants must accept the decisions without dispute.