OTOMATIKS®

PROUDLY PRESENTS

ROBOTICA-2G™

7TH INTERNATIONAL ROBOTICS COMPETITION

ROBOTICA 26 – International Robotics Competition 2026

EVENT NAME: ROBO SUMO

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1) GENERAL INFORMATION

Robo Sumo is a competitive robotics event inspired by traditional Japanese Sumo wrestling. In this contest, two manually controlled robots face off inside a circular arena. The objective is to push or flip the opponent's robot out of the ring. The main goal is for one robot to **force its opponent out of the ring** while remaining inside the boundary.

2) EVENT DETAILS

- **Event Name**: RoboSumo – Robotica 26
- **Date**: January 30, 2026
- **Venue**: VIT University, Chennai, Tamil Nadu
- **Registration Fee**: Rs. 1000 per team
- **Team Size**: Maximum 2 members
- **Eligibility:** Grades 6–12
- **Categories:** Junior - Grade 6 to 8
  Senior - Grade 9 to 12

Event Objectives

The objective of the **Robo Sumo event** is to inspire students to design, build, and program a robot capable of competing in a Sumo-style match. Each robot must use intelligent control, speed, and strength to **detect, approach, and push the opponent robot out of the circular ring**, while **avoiding being pushed out** itself.

- This event aims to:
- Encourage students to apply their knowledge of electronics, sensors, and programming in a real-world competitive scenario.
- Promote innovation, creativity, and problem-solving skills through hands-on robot design.
- Develop an understanding of control systems, motor mechanics, and strategic gameplay.
- Build teamwork, sportsmanship, and technical confidence among young learners.

3) EVENT FORMAT:

- Bots are placed inside the ring at their designated positions.
- Match begins on the referee's signal ("3, 2, 1, Start!").
- Each round lasts up to 2 minutes.
- A robot wins the round by pushing its opponent completely out of the ring.
- A robot loses if it goes out of the ring by itself.
- The event is conducted in a **knockout format**; the match winner advances to the next stage (Quarterfinal → Semifinal → Final).
- If no bot leaves the ring before time ends, the judges will decide the winner using the point system
- If both bots leave the ring at the same time, the bot that leaves last will be declared the winner

4) EVENT RULES AND REGULATIONS

- The Robot should not damage the arena.
- No test practice will be allowed on the arena.
- Your robot must be ready when a call is made for your team.
- If any of the robots starts off before the start up call, the counter would be restarted and the machines will get a second chance. If repeated again then the team will be disqualified.
- Unethical behavior could lead to disqualification. Faculty coordinators have all the rights to take final decisions for any matter during the event.
- Judge's decision will be considered final.
- The Co–ordination committee reserves the right to add or update any rule.

A.BOT SPECIFICATION:

- The maximum dimensions of the bot should not exceed **25 cm × 25 cm × 15 cm (L × B × H).**
- Construct a wireless bot with reliable Remote-Control Mechanism, only wireless robots are allowed.
- The **maximum weight** of the **bot must not exceed 3 kg**.
- The chassis and frame must be constructed using aluminium or metal.
- Wheels should be rubber; metal wheels are not allowed.
- **There is no limitation on the type of motor to be used**
- **RC cars** or commercially available **remote-controlled toys** are strictly not allowed.
- Bots must operate via participant-controlled wireless systems; **no external assistance is permitted during the run.**
- Teams must ensure their bots are **safe to operate** and will not damage the arena, track, or other bots.
- **Battery Voltage:** Must **not exceed 12V**.
- Only **DC rechargeable batteries** are allowed (Li-ion, LiPo, or NiMH).
- Battery must be **securely mounted** to the robot chassis.
- Batteries should be **safe, leak-free, and capable of powering the robot** for the entire match.

B. ROBO SUMO ARENA

- A Sumo arena will be revealed in November.
- The ring's boundary is marked with a white line, typically 2.5 cm thick.
- Base Material – Foam/Banner/Wood

*Few details about Event format and Point system, track will be revealed soon in the https://www.robotica.org.in on November, 2025

5) REGISTRATION DETAILS

- **Fee**: Rs.1000 per team
- **Deadline**: Jan 30, 2026
- **How to Register**:
    - Online: https://www.robotica.org.in
    - Offline:Via in-charge staff at respective institutions
- **Contact**: +91-81485 18703
- **Email**: robotica26@otomatiks.in

Why Participate in Robotica 26?

- Compete internationally with the best minds in STEM.
- Boost your technical profile and creativity.
- Be part of an inspiring and innovative community.

We highly encourage students and robotics enthusiasts across India to join us at **ROBOTICA 26** and showcase your robot design and racing skills. This is an excellent opportunity to push the boundaries of robotics, innovation, and technical creativity in a fun, competitive, and educational environment.

Get ready to race into the future of technology — where innovation meets speed!

Team Otomatiks
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