



# Proposal: Motion – Tech Robo Competition

Organized by: Motion Robotics, Pune

 Dates: November 16, 2025

 Venue: Pune

## Vision & Purpose

The Motion – Tech Robo Competition is more than just a contest—it's a movement to inspire the next generation of creators, engineers, and innovators across Maharashtra. By engaging students in hands-on robotics and drone challenges, we aim to:

- Spark curiosity in STEM fields
- Encourage teamwork, creativity, and problem-solving
- Provide a platform for showcasing technical talent
- Build a community of future-ready thinkers and builders

## Event Categories

Event Name	Eligibility	Description
<b>Mech – Tech</b>	Grades 1–4	Introductory mechanical challenges for young minds
<b>Robo Soccer</b>	Grades 3–10	Fast-paced robot soccer matches requiring strategy and control
<b>Robo-Race (Obstacle Race)</b>	Grades 3–10	Navigate robots through a dynamic obstacle course
<b>Trace The Track</b>	Grades 3–10	Line-following robot challenge focused on precision
<b>Drone Dash</b>	Grades 3–10	Aerial drone race testing agility and navigation
<b>Robo Wrestling</b>	Grades 6–10	Bot-versus-bot wrestling matches showcasing strength and tactics
<b>Innovative Challenge Exhibition</b>	Open to all with valid ID proof	Showcase original tech projects—no age limit, just creativity

## Venue Requirements

- Secure storage area for equipment and participant kits
- Smooth flooring for robot track events
- Adequate ceiling height for drone events (minimum 15 ft clearance)
- **Special Requirements:**
  - Parking space for participants and visitors
  - Washrooms and sanitation facilities
  - Drinking water and basic refreshments
- **Facilities:**
  - Clearly marked entry/exit points
  - Fire extinguishers and safety officers on standby
  - First-aid and emergency support
- **Safety & Logistics:**
  - Safety mats and barriers for robot race tracks and drone flying zones
  - Tables and chairs for participants, judges, and organizers
  - Projector and sound system for announcements and presentations
- **Technical Setup:**
  - High-speed Wi-Fi for live scoring, streaming, and project demonstrations
  - Backup power (generator/inverter)
  - Reliable electricity supply with multiple sockets and extension boards
- **Power & Connectivity:**
  - Breakout rooms for team preparation and practice
  - Dedicated exhibition space for the Innovative Challenge Exhibition
  - Separate outdoor/large hall area for drone challenges
  - Large indoor hall or auditorium for main events
- **Space & Layout:** To ensure smooth execution of the Motion – Tech Robo Competition
  - Adequate ceiling height for drone events (minimum 15 ft clearance)
  - Smooth flooring for robot track events
  - Secure storage area for equipment and participant kits.

## **Rewards & Recognition**

Participants will compete for exciting prizes, certificates, and public recognition. Top performers may also be featured on our website and social media platforms, amplifying their achievements.

## **Collaboration Opportunities**

We invite schools, tech companies, and educational organizations to join us as:

- Sponsors – Support the event and gain brand visibility
- Knowledge Partners – Conduct workshops or mentor participants
- Media Partners – Cover the event and amplify its reach
- Volunteer Networks – Engage students and educators in event execution


## **Promotional Tagline**

“Are you ready to build, battle, and break limits?”

Join the ultimate arena of robots and drones. Be part of Maharashtra’s innovation wave.

## **Contact Information**

Coordinator: Motion Robotics Team

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 Website: [www.motionrobotics.in](http://www.motionrobotics.in)

## **Event Categories – Detailed Descriptions**

### **Mech – Tech (Grades 1–4)**

- Type: Mechanical challenge (no electronics required)
- Goal: Introduce younger children to basic mechanics and problem-solving.
- Examples: Building simple pulley systems, gear models, or mini-bridges with given materials.
- Duration: 30–45 minutes.

### **Robo Soccer (Grades 3–10)**

- Type: Robot vs. robot soccer match.
- Goal: Control robots to score goals against opponents.
- Requirements: Teams build simple robots (wired or wireless) capable of movement and ball control.
- Judging: Points awarded for goals, teamwork, and robot efficiency.
- Arena: Mini football-style ground with boundaries and goalposts.

### **Robo-Race (Obstacle Race) (Grades 3–10)**

- Type: Speed + Obstacle navigation.

- Goal: Navigate robots through a track filled with obstacles (ramps, hurdles, zig-zags, see-saws).
- Challenge: Fastest time with minimal errors wins.
- Judging: Time taken + penalties for missed obstacles.

#### **Trace The Track (Grades 3–10)**

- Type: Line-following robot competition.
- Goal: Program/build a robot that follows a black/white track using sensors.
- Challenge: Curves, intersections, and tricky track patterns.
- Judging: Accuracy and completion time.

#### **Drone Dash (Grades 3–10)**

- Type: Drone racing challenge.
- Goal: Fly drones through checkpoints, tunnels, or hoops.
- Challenge: Avoid obstacles and complete laps in the fastest time.
- Safety: Enclosed net area for drone flying.
- Judging: Time + accuracy of completing checkpoints.

#### **Robo Wrestling (Grades 6–10)**

- Type: Robot vs. robot combat challenge (non-destructive).
- Goal: Push the opponent's robot out of the arena ("Sumo-style") or disable movement temporarily.
- Rules: Weight/size limits on robots; no sharp or dangerous parts.
- Judging: Best of 3 rounds.

#### **Innovative Challenge Exhibition (Open to All)**

- Type: Project showcase.
- Goal: Students present their original innovations, prototypes, or research-based projects.
- Examples: IoT devices, renewable energy models, AI/ML applications, social impact solutions.
- Judging: Creativity, problem-solving, real-world application, and presentation skills.