

# 1. Event Overview:

Robosoccer is a competitive robotic event where manually controlled robots compete inside a soccer-inspired arena. The competition focuses on practical robotic engineering, where teams are required to design stable, responsive and competition-ready robots capable of performing under pressure.

The event emphasizes robot design quality, mechanical robustness, control accuracy and team coordination. Participants are expected to demonstrate real-world problem-solving skills rather than relying solely on theoretical knowledge.

The competition environment is designed to simulate real-time pressure conditions, encouraging innovation, reliability and effective teamwork.

## 2. Eligibility Criteria:

The Robosoccer event is strictly limited to undergraduate-level participants to ensure a fair and competitive environment.

- The competition is open to all students.
- All participants must have a valid ID card during the event.
- Each team must consist of **2 to 4 members** only.
- A participant is not allowed to participate in more than one team in this event.

Any violation of the above eligibility rules will result in **immediate disqualification**, irrespective of the competition stage or match status.

## 3. Team Registration:

- Every team is required to register with a **distinct team name**.
- After registration, the **composition of the team cannot be altered under any circumstances**.
- Teams must arrive at the event venue **at least 30 minutes prior** to their designated time slot.
- Late arrivals may result in **disqualification or a walkover**, depending on the organiser's discretion.

Teams are encouraged to complete the registration process meticulously, as any incomplete or inaccurate information may result in cancellation of participation.

## 4. Arena Description:

The Robosoccer arena is designed to resemble a standard soccer field in a compact robotic format

- The arena will be a **rectangular, enclosed field** resembling a soccer ground.
- The playing surface will be **flat and non-slippery**, constructed using wood or synthetic material.
- The arena will have **clearly marked boundaries** for smooth gameplay control.
- Goal posts will be placed at opposite ends of the arena.
- A **standard lightweight ball** (tennis ball or equivalent) will be used throughout the event.

The exact arena dimensions may vary slightly depending on setup conditions and will be announced on the event day. The arena is designed to test **maneuverability, control, and mechanical stability** under competitive interaction.

# 5. Robot Specifications:

## 5.1 Size Constraints

- Maximum allowed dimensions:  
**30 cm × 30 cm × 20 cm (Length × Width × Height)**
- The robot must remain within the specified dimensions at all times.
- Any mechanism that expands beyond the allowed size is **strictly prohibited**.

## 5.2 Weight

- Maximum allowed weight of the robot is **2 kg** (including battery ).
- Robots exceeding the weight limit will be **disqualified during inspection**.

## 5.3 Power Supply

- Robots must be **self-powered**.
- External power sources are **not allowed**.
- Batteries must be **properly insulated and securely mounted**.
- Maximum **24 Volts** supply is allowed.

## 5.4 Control & Interference

- Robots must be **manually controlled**.
- Both **wired and wireless** control systems are allowed.
- Teams using wireless control must ensure no **frequency interference** with other robots.
- Grabbing, push, pull and jump mechanism are strictly prohibited.
- Cant hold the ball for more than 3 seconds
- Fangs shouldn't have a sharp edge
- The use of planetary geared motors is strictly prohibited



## 6. Fouls and Penalties:

The following actions are strictly prohibited

- Intentionally damaging or disabling opponent robots.
- Using sharp edges, spikes, blades, flames, liquids, or hazardous materials.
- Deliberately lifting, flipping, or entangling opponent robots.
- Any action deemed unsafe or unethical by the judges.
- First violation: Warning
- Repeated violations: Penalty or Disqualification, based on severity.

## 7. Disqualification Criteria:

A team may be disqualified if

- The robot does not meet size or safety constraints.
- The team violates eligibility or registration rules.
- Unsafe or unethical practices are observed.
- Instructions from officials are repeatedly ignored.