



## ROBO SOCCER HEAVY WEIGHT RULES AND REGULATIONS

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## 1. Team Composition

- Each team can have a maximum of **5 players**
- Starts with **Grade 6 to Grade 12**
- Each team must consist of **3 remote-controlled robots**:
  - **1 Goalkeeper** — must remain inside the penalty box.
  - **2 Strikers** — free to move throughout the field.

## 2. Robot Specifications

- **Size**: Each robot must fit into a **30 cm x 30 cm x 30 cm** box.
- **Weight**: Maximum weight is **7 kg**, with a **± 5% tolerance** (up to **7.35 kg**)
- **Control** : Robots must be controlled **wirelessly** using:
  - **Bluetooth , Wi-Fi, or RF/RC modules.**
- **Identification** : Robots must be marked as **1 2 3** or **A B C**
- **Restrictions** :
  - **No sensors of any kind (e.g., IR, ultrasonic, cameras, etc.) are allowed.**
  - All movements and decisions must be made by the human controller via remote.
  - Planetary gear motor strictly prohibited

## 3. Soccer Ball

- The ball shall be a **40 mm diameter ping pong ball or a 3D printed ball** (preferably orange or white).

## 4. Field Specifications

- **Field Size** : Recommended size is **2.4 m x 1.5 m**
  - Clear boundary lines Marked **penalty**
  - **boxes** on both ends

- **Goal Area:** Defined and visible, only the goal keeper may stay within their team's penalty box.

## 5. Match Duration and Structure

- **TotalTime:** Each match lasts 7.5 minutes ,split into:
  - **Two 3-minute halves**
  - **1.5-minute break** between halves
- **Robot Repair Time :**
  - If a robot is damaged,the team may use the **1.5-minute interval** to fix it.
  - No extra repair time will be allowed during active play.

## 6. Gameplay Rules

- **Kick-off:**Decided by coin toss at the start.
- **Goalkeeper Rule:**Must stay **within the penalty box** at all times.
  - Violations result in a **warning**, and repeated offenses may lead to a **free kick** for the opponent.
- **Ball Possession:**
  - If **Team A kicks the ball out of the field**, **Team B** is awarded possession from the sideline.
- **Ball Hoarding:** Robots cannot trap the ball for more than **5 seconds**.
- If a robot becomes damaged during the match, it may be removed from the arena. In such a case, the goalkeeper is allowed to take the role of a striker, and the team may continue the game with the remaining two robots.

## 7. Scoring and Tie-breakers

- A goal is valid only if the **entire ball** crosses the goal line.
- After each goal, the non-scoring team starts from the center.

## Tie-Breaker Rules

- **League Matches :**

- If the game ends in a tie, each team takes 3 penalty kicks.
- If still tied, a **coin toss** determines the winner.

- **Semi-final and Final :**

- If the game ends in a tie, 1 minute of extra time will be provided.
- If tied after 3 penalties, the match continues with a **Golden Goal** (first to score wins ).

## 8. Fouls and Penalties

- **Illegal Contact :** No intentional damage or ramming allowed.
- **Unsportsmanlike Conduct:** May lead to disqualification.
- **Out-of-bounds Play :** The team that kicks the ball out loses possession.

## 9. Power and Communication

- **Power Supply:** All robots must use **internal batteries**.  
No wired power connections allowed.
- **Communication:**
  - Robots must be controlled via **Bluetooth Wi-Fi**, or **RF**.
  - **No autonomous or sensor-based actions** are permitted.

## 10. General Conduct

- All robots must pass a pre-match inspection for compliance.
- All teams must respect referees and opponents.
- Referee decisions are **final and binding**.