



Lightweight Robo Soccer Rules & Regulations

www.stemifon.org | Ph.No.: 9488355175

Objective

Teams must design and operate lightweight robots to compete in a soccer match. Robots must meet the specified size, weight, and hardware limitations. The team that scores the most goals within the allotted match time is declared the winner.

Team Composition

- Each team can have a maximum of **5 players**.
- **Grade 4 to 7 - Category 1**
- **Grade 8 to 12 - Category 2**
- Each team must consist of **3 remote-controlled robots**:
 - **1 Goalkeeper Bot**
 - **2 Striker/Defender Bots**
- Each participant controls **one robot**
- Substitutions are not allowed once the match begins.

Robot Specifications

1. Motors:

- Only **BO motors** or **normal DC gear motors** are allowed.
- **Johnson motors** or **OG555 motors** are not permitted

2. Control System:

- Robots may be controlled using:
 - **Bluetooth**
 - **PS3 Joystick**
 - **Any wireless transmitter/receiver system**

3 Dimensions:

- Each robot must fit within a 25 cm x 25 cm x 25 cm box during inspection
- Robots will be checked inside the box before the event.

4 Power Supply

- Battery type: **Li-Ion or Li-Po only**
- Maximum voltage: **+12V**

5. Ball :

- A **40 mm diameter 3D printed ball** or a **ping pong ball** will be used.

Identification : Robots must be marked as 1 2 3 or A B C

Arena Specifications

- Size: **8 feet x 6 feet**
- Smooth flat surface with **clearly marked goals**.

Match Format

- **Match Duration** : 3 minutes total
 - **First Half** : 1.5 minutes
 - **Second Half** : 1.5 minutes
 - **Repair Time** : 1 minute (if required)
- The match begins with the ball placed at the **center of the arena**.
- The team with the most goals at the end of the match is the winner.

Game Rules

1. The **goalkeeper robot** must remain inside the penalty box.
2. **Striker/Defender robots** may move freely across the arena.
3. Robots must remain within the arena boundaries.
4. If a robot is damaged, **1 minute repair time** is allowed during the break.
5. If the ball goes out of bounds:
 - Possession is given to the **opponent team**.
6. Robots must not intentionally damage the opponent's robots.

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 the match remains tied after extra time, each team will be given **3 penalty kicks**.
- If the score is still level after the 3 penalties, the game will continue under the **Golden Goal rule**

Disqualification Conditions

- The robot exceeds size or battery limits.
- Use of **prohibited motors (Johnson, OG555, etc.)**.
- Unsafe behavior, intentional damage, or unsportsmanlike conduct. Failure to comply with referee instructions.