

CODEAVOUR 7.0

INTERNATIONAL

Track 3 - Robo Soccer League

Rules and Regulations



Score with Skills, Win with Code

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1. Robo Soccer League- Build.Code.Compete

Get ready for the thrill of **Robo Soccer League** in Track 3 of Codeavour 7.0 International. Build and code your robot in **PictoBlox**, take the controls, and battle on the field to score goals and defeat your rivals. It's fast, fun, and the ultimate mix of gaming, coding, and robot sports.

1.1. **Get Started:**

- 1.1.1. **Design and build** your Soccer Robot.
- 1.1.2. **Code** it in **PictoBlox**.
- 1.1.3. **Connect wirelessly** and **drive manually** from your phone/ laptop/ tablet/ Quarky.
- 1.1.4. **Compete head-to-head**, score goals, and climb the leaderboard.

1.2. **Skills you'll sharpen:**

Robo Soccer helps you be creative, code with confidence, and design better robots while playing fair. At Codeavour International, you practice real 21st-century skills, feel the thrill of robot sports, and grow through structured learning, teamwork, and hands-on innovation.

- 1.2.1. **Coding:** Logic, control flows, real-time decision making.
- 1.2.2. **Robotics:** Sensors, actuators, drivetrain, wireless control.
- 1.2.3. **Engineering Skills:** Mechanical design, reliability, rapid iteration.
- 1.2.4. **Strategy & Planning:** Game tactics, teamwork, adaptation under pressure.

2. Eligibility, Team Composition & Identification

2.1. **Age requirements:**

- 2.1.1. **Elementary:** 7-10 Years
- 2.1.2. **Junior:** 11-14 Years
- 2.1.3. **Senior:** 15-18 Years
- 2.1.4. **Mixed-age teams** compete in the **oldest member's category**.
 - a. *Example:* two Junior + one Senior ⇒ **Senior**.

*NOTE: All the participants must meet the age group and team size criteria. Category is based on **age**, not school grade.*

2.2. **Team Structure:**

- 2.2.1. **Members: 2–3 students** per team. All must fit the chosen age category.
- 2.2.2. **Mentor/Coach: Exactly 1 adult (18+)** responsible for conduct, safety, and logistics.
 - a. May **advise between** matches/time-outs; must **not operate** the robot or device during live play.
 - b. Must ensure the team follows safety and event rules.
- 2.2.3. **One-team rule:** No person (student) may register for more than one team in the event.

2.3. Robot and Team Sharing:

Team members and robots must not be shared across teams.

- 2.3.1. **Active/Build robot limit:** Maximum two robots on the field at any time; a third robot may be kept as backup.
- 2.3.2. **Inspection:** Only robots that pass inspection and receive an official inspection tag are eligible to play.
- 2.3.3. **Substitution:** Teams may switch which inspected robots are active **between matches**. **Mid-match substitutions** are allowed **only** during an official **Reset**; robots must enter and exit as directed (e.g., via the D-box at restart).
- 2.3.4. **Control & drivers:** Each active robot must have 1 student driver (maximum 2 drivers per team). Control devices must follow wireless/RF rules.
- 2.3.5. **Failure/safety:** If a robot becomes unsafe, the Referee may order its removal; the team may continue with its **remaining active robot(s)**.
- 2.3.6. **No cross-team sharing after inspection:** Robots and major assemblies must **not** be **shared across teams** once inspection is complete.
- 2.3.7. **Parts sharing:**
 - a. **Before inspection:** sharing is allowed.
 - b. **After a team's robot passes inspection: no sharing** of **major assemblies** (chassis, drive modules, control board, batteries, radios, sensors already mounted).
 - c. **Consumables** (screws, zip-ties, tape, lubricants) may still be shared.
- 2.3.8. **Team Members:** After registration and final confirmation by country partners, no team members can be added or shared across teams.
- 2.3.9. **Driver & device:** Each team designates its **driver(s)** and uses its **own control device** (phone/tablet/laptop) meeting the event's RF/connection policy.

3. Team Registration/Documentation & Deadlines

3.1. Registration Link:

To register, participants must visit the Codeavour 7.0 International website and complete the registration form.

<https://codeavour.org/register-now>

3.1.1. **Portal only:** Complete the online process via the **official Codeavour portal** within the notified registration window(s).

3.1.2. **Account & accuracy:** Use a single team account. Ensure **names, age category, school, mentor details, and contact email/phone** are accurate—these will be used for official badges and schedules.

3.1.3. **What you agree to:** By registering you accept the **rulebook**, safety policy, and media/consent terms published on the portal.

3.1.4. **Official communications:** Teams are responsible for reading all **pre-event circulars** (schedule, logistics, safety, arena specs) posted on the **announcement board/channel**.



3.2. Submission Policy:

All details must be submitted via the portal in the specified formats. Missing, late, or incorrect submissions may result in ineligibility or scheduling exclusion.

3.2.1. **Team Intro Document** (*follow official template post registration*)

- Members (age/category), mentor, school, and short team bio.
- Contact details for day-of communications.

3.2.2. **Robot Document** (*generated via website; bring a printed copy for inspection*)

- Robot name(s) and configuration(s); declare up to **3** robots to field.
- Drive system, control method (**PictoBlox/Dabble**), radio/connection details, power/battery type, safety features.
- Dimensions/weight, key components, and any custom parts.
- Compliance checklist signed by mentor.

3.2.3. **Design & Control Video (≤ 3 minutes):**

- Show the robot(s) driving under **manual wireless control** from your device.
- Briefly explain **design rationale**, materials, and control mapping.
- Capture basic maneuvers (start/stop, turn, ball approach). Clear audio/visuals; no heavy edits needed.
- File naming: **TeamCode_AgeCategory_Video** (follow portal convention if provided).

File rules & revisions: Follow portal limits for format and size). You may resubmit within the window; the **latest timestamp** before the deadline is final.

3.3. On site Readiness:

- 3.3.1. **Spares & tools:** Bring essential **spare parts, fasteners, tools, chargers, power strips** (if permitted), and **approved batteries**. Clearly label all items with your **Team Code**.
- 3.3.2. **Devices ready:**
 - a. Install/update **PictoBlox** and any required drivers **before** arrival.
 - b. Prepare your phone/tablet/laptop; **disable auto-updates**, set **Do-Not-Disturb**, prevent **sleep/screen-timeout** during matches.
 - c. Verify your **wireless link** works per **Track 3 guidelines**.
- 3.3.3. **Power & safety:** Use safe chargers; carry batteries safely; follow venue charging rules. The Referee/Inspector may remove unsafe equipment.
- 3.3.4. **Documents at check-in:** Printed **Robot Document, photo IDs**, and any additional forms requested in pre-event circulars.
- 3.3.5. **Participant briefing & inspection:** Attendance is **mandatory**. Only **inspected/tagged** robots may enter the field.

3.4. Deadlines & Late Policy:

- 3.4.1. **Hard deadlines:** All registration and submission cut-offs are **hard stops**. The Organizer **may reject** or **waitlist** entries received after capacity/deadline.
- 3.4.2. **Corrections:** Administrative fixes (typos/contact) may be allowed until the **admin cutoff** posted on the portal. Technical content changes after the submission deadline are **not guaranteed** to be accepted.
- 3.4.3. **No-show / withdrawal:** Teams that withdraw or fail to check in on time may forfeit their slot.
- 3.4.4. **Organizer discretion:** Minor extensions or addenda may be issued via official bulletin for fairness/safety; teams must monitor the website.

4. Glossary

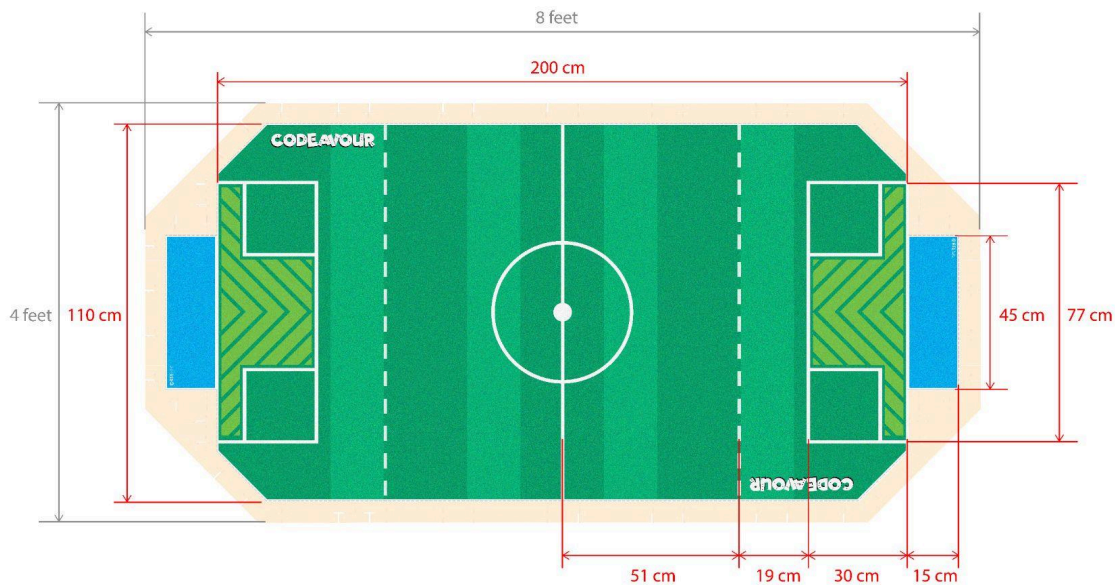
Know the Lingo

Learn the key terms you need before you play

Term	Meaning
Arena	The marked area where you must play.
Kick-off (KO)	How play starts or restarts after a goal, from the center dot on the Ref's whistle.
Pause	Temporary stop where the ball is placed at the centre, robots stay frozen, and play resumes on the referee's signal.
Reset	A full restart like a kick-off, with the ball at the center and robots re-placed in their D-boxes; also occurs after two consecutive Pauses.
Out of Bounds (OOB)	Ball or robot completely crosses the boundary line. The *Ref restarts play.
D-box	The square in front of each goal used to place robots at kick-offs and full resets.
Foul	A rule break. The Ref gives a penalty.
Red Card	Serious misconduct or too many fouls. Big penalty for the team.
Match Clock	Official timer for the game. Only the Ref can start or stop it.
In-match Score	Your goals minus any foul points for that match.

*Ref: Referee

5. Arena, Ball, and Event Equipment

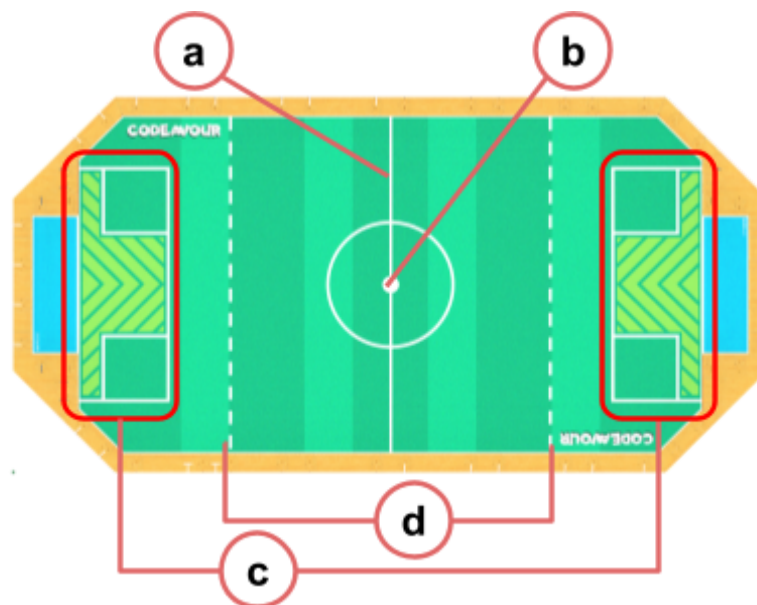


5.1. Arena Field Specifications:

- 5.1.1. **Arena Area:** 8 ft × 4 ft
- 5.1.2. **Playing Area:** 6.5 ft × 3.6 ft
- 5.1.3. **Boundary Wall:** 110-15cm high, with slightly filleted corners.
- 5.1.4. **Goal Post:** Width- 40cm, Height-25cm, Depth- 20cm
- 5.1.5. **Surface:** Flat, **matte printed wooden board** with **high-contrast white markings;** low-glare finish to aid vision sensors.

5.2. Arena Markings:

- 5.2.1. **a) Centre Line-** White Straight line dividing the Arena for both teams.
- 5.2.2. **b) Centre Dot -** White color Dot at centre- Ball Reset Point
- 5.2.3. **c) D box- (44x15cm)** white color box Line- Start and reset line for Robots.
- 5.2.4. **d) Penalty Point-** White dashed line on Arena.



5.3. Marking Notes/Care:

- 5.3.1. No team member enters the field or touches the ball/markers **without Referee permission.**
- 5.3.2. **Arena, ball,** and other official elements may have up to **±2% size difference** or small colour/print variations. **Things provided at the event will be final.**
- 5.3.3. Only **official** field lines/labels are valid. No team can add stickers, tapes, or beacons on the field/walls.
- 5.3.4. Any temporary reference markers (if provided by officials) are **identical** for both sides and removed upon request of the Referee.
- 5.3.5. **Access control:** Only **officials** may place/adjust the **field, ball, or event equipment** during matches.

5.4. Ball Specifications:

- 5.4.1. **Type:** Game Ball (Only the official competition-supplied Game Ball will be used in matches.)



- 5.4.2. **Material:** Lightweight, durable, soft-impact foam/rubber design
- 5.4.3. **Size/Mass:** 7 cm (± 0.5 cm); 60-80g.
- 5.4.4. **Features:**
 - a. Hollow and light for smooth robot interaction
 - b. High rebound and easy to control on the arena surface
 - c. Safe for indoor play and suitable for younger participants
- 5.4.5. **Materials note:** Balls are **non-magnetic** and not designed for adhesion; designs exploiting anchoring/suction are prohibited (see **Code of Conduct 5.3**).

6. Gameplay Rules

The game consists of two teams with their 2 robots playing soccer against each other.

6.1. Team and Time:

- 6.1.1. **Active Robots:** Up to **2 robots per team** allowed on the field under **manual control**.
- 6.1.2. A **third robot** may be held as backup (see substitutions below).
 - a. Backup robots may be swapped **only at a Kick-off/Reset** with Ref approval. The incoming robot must have **passed inspection**.
- 6.1.3. **Match Length: 5 minutes total** → **2 × 2-minute halves** with **1-minute halftime**.

6.2. Pre Match Setup and Inspection:

- 6.2.1. **Precheck:** Teams must ensure robots are fully prepared, charged, and in working condition before the match.
 - a. Teams must bring their **printed Robot Document** and be ready to open project files if requested by the Inspector.
- 6.2.2. **Call:** Teams report to the arena **5 minutes** before their match.
- 6.2.3. **Inspection:** Size/mass check, safety check, control demo (PictoBlox/Dabble) will be done.
- 6.2.4. **Briefing:** Referee confirms key rules, addresses questions, assigns sides.
- 6.2.5. **Ready Check:** Controllers connected; robots stationary; hands clear.
- 6.2.6. The team proceed to the main Arena and take their positions. (Refer 6.4)
- 6.2.7. **Coin toss & sides:** Before the match, Referee tosses a coin; first-named team calls. The winner chooses a side to play. Teams switch sides at halftime.

6.3. Initial Configuration and Robot Position:

- 6.3.1. Ball will be initially positioned at centre point (refer image A), and both team's, both robot's will be inside marked boxed in their D area side (refer image B).
- 6.3.2. Robots must be placed completely inside the marked area, not on or outside the boundary line. Orientation within the box is allowed.
- 6.3.3. Once placed, you cannot touch and move it again, unless the referee asks you to adjust it.

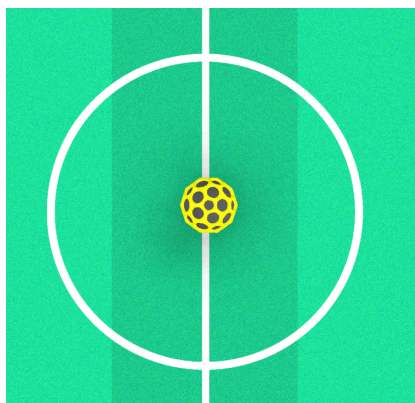


Image A

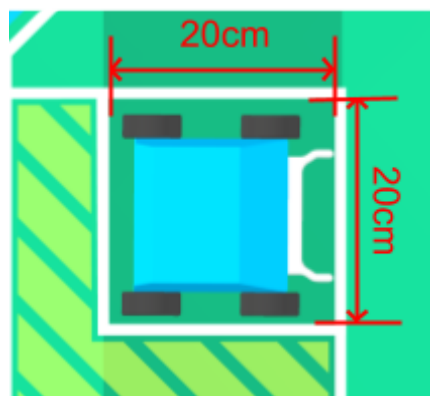
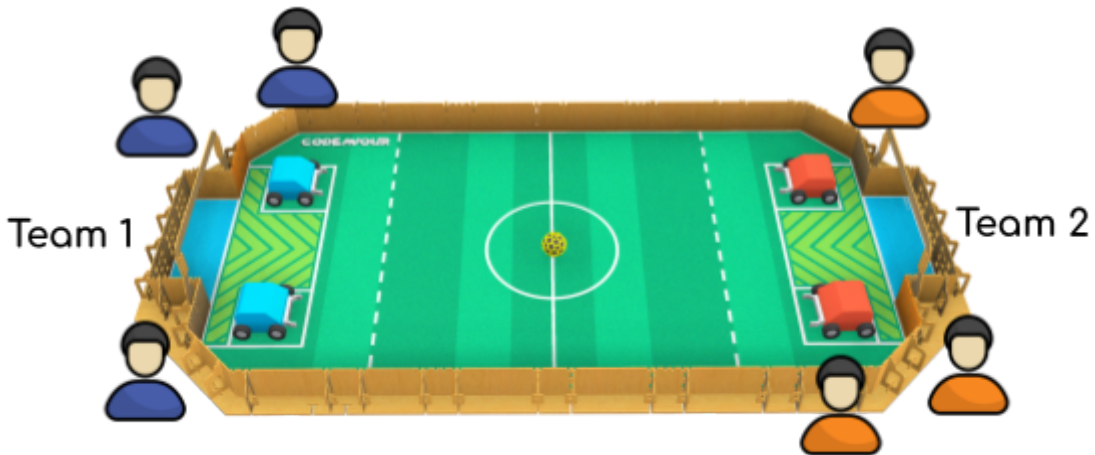


Image B

6.4. Participant Position:

- 6.4.1. After sides are decided, each team must stand on **their own side of the arena**.
- 6.4.2. Team members should stand at the **corners of their side**. (refer image below).
- 6.4.3. Once positions are set, **switching places within the team is not allowed**, except **one allowed change during every RESET**.



6.5. Kick-off:

A kick-off happens at the start of each half and after every goal. Both teams start together at kickoff to score a goal.

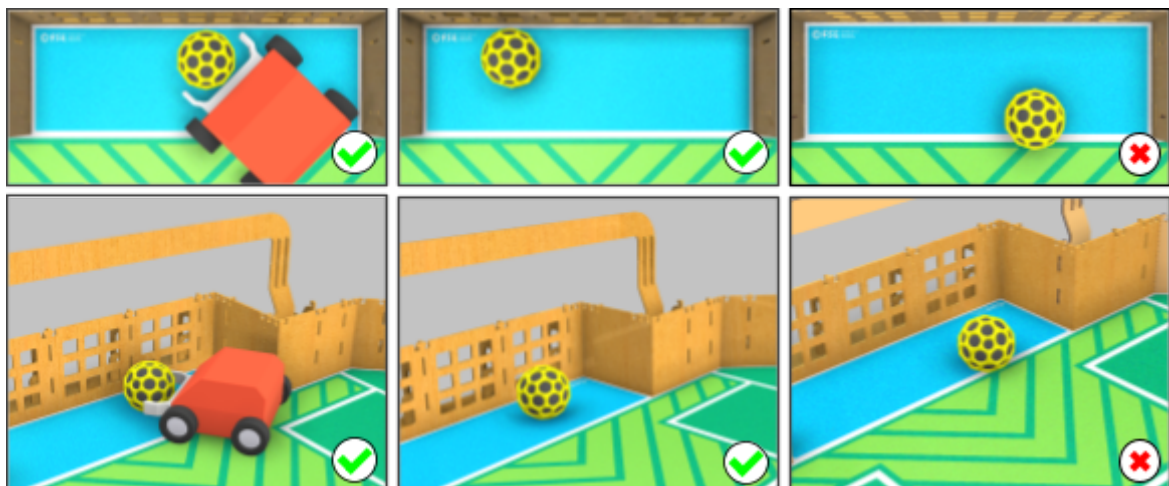
6.5.1. Kick-off placement:

- a. Ball on **centre dot**.
- b. All robots are fully **inside their own D-box** and **stationary**.
- c. Match Start **only on the whistle/signal**.

6.5.2. **False Start:** Any robot movement before the whistle = **False Start. (Refer-Clause 8)**; typical remedy: **reset kick-off** and warning/escalation for repetition.

6.6. Goal/Score:

A goal is scored when the ball completely crosses the goal line and touches the ground inside the goal or hits the back wall of the goalpost.



- 6.6.1. For each goal, the **scoring team earns 10 points**.
- 6.6.2. After a goal:
 - a. After a goal, the referee gives a 15–20 seconds window to reset.
 - b. The referee will **return the ball to the center** for kick-off.
 - c. The referee will give the teams their robot in their half.
 - d. Teams will **place robots inside their marked areas** (as per Placing Robots rule).
 - e. The game will **resume with a kick-off**.

6.7. Pause vs Reset:

Essential Match Terms for All Participants and Officials.

- 6.7.1. **Pause(Temporary stop):**
 - a. The ball is placed at the center circle.
 - b. **Robots remain** (“frozen”) no one touches them unless the Referee instructs.
- 6.7.2. **Reset (full restart):** Reset is the same as Kick-off, just
 - a. Used after **goals**, or when fairness/safety requires a clean restart.
 - b. Ball to **centre, both teams re-place robots** inside their **own D-box**.
 - c. Two consecutive Pause will also lead to Reset.

6.8. Out of Play and No-Progress:

- 6.8.1. **Ball out of playing area:** If the ball goes outside the arena, the game will be paused and the referee will place the ball back at the center, resume on whistle.
- 6.8.2. **No-Progress (5 s):** If play stalls (e.g., ball wedged against wall/robots, prolonged pushing with **no net movement, simultaneous disconnects**) the Ref counts **5 seconds** and calls **Pause**.

6.9. Disabled/Damaged Robots:

- 6.9.1. **During live play:** Overturned, disconnected, or damaged robots **remain in place** until the next **Kick-off/Reset** unless the Ref orders removal for **safety** or **field clearance**.
- 6.9.2. Examples:
 - a. **Turned over by self or opponent:** stays in place; driver may attempt to self-correct using controls.
 - b. **Stuck or disconnected:** remains still until restart.
 - c. **Broken/detached parts**(e.g., wheels, wires, covers): Referee will remove only the loose/damaged part, not the entire robot.
- 6.9.3. **Goal entrapment:** If a robot is overturned or **stuck inside the goal line** and cannot self-recover, it will be removed and returned at the next restart.
- 6.9.4. **Unsafe condition:** The Ref may **remove** any robot presenting a hazard (e.g., exposed battery, smoking motor). The team may continue with its **remaining active robot(s)**.
- 6.9.5. **Backup introduction:** Backup robots may enter **only at Kick-off/Reset**, ensuring no more than two robots per team are on the field at any time.

7. Scoring, Standings and Tie-Breakers

7.1. In-Match Score:

- 7.1.1. **Goal:** +10pts
- 7.1.2. **Fouls:** Deduct points exactly mentioned in table clause 8.2. Scores can be negative after deductions.
- 7.1.3. **Result:** The highest score in-match wins the match.
- 7.1.4. **Worked Example:**
 - a. Team A: 3 goals (**30 pts**), 3 **False Start (-12)** = **18**
 - b. Team B: 2 goals (**20 pts**), **0 fouls** = **20**
 - c. **Result:** Team B wins **20-18**.

7.2. Match Tie:

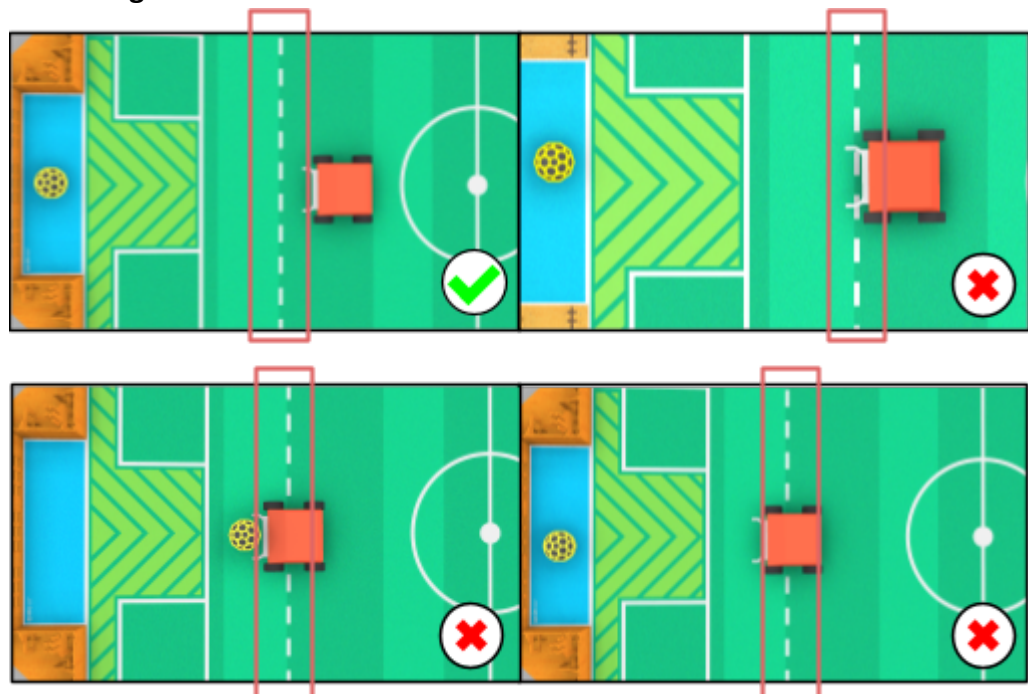
If both teams are tied at the end of a match, a Penalty Shootout will decide the winner.

7.2.1. Penalty Shoot-out:

- a. Each team selects **1 robot** for penalties. Once chosen, it cannot be changed.
- b. Each team gets **3 attempts**. Team members take turns in rotation to control the robot.

7.2.2. How To Penalty :

- a. Chosen Robot will be placed according to the placing robot rule(7.3)
- b. Once time starts, the robot has **15 seconds** to attempt and score.
- c. Invalid Penalty: overstepping the penalty line/mark or failing to shoot in time= **no goal**.



7.2.3. If still tied after penalties:

- a. In **league matches:** Match record as draw, Both teams get **1 point**.
- b. In **knockout matches:** **Golden Goal** (open play; **first to score wins**). The Ref may apply **short restarts** to keep play flowing.

8. Fouls, Sanctions & Card System

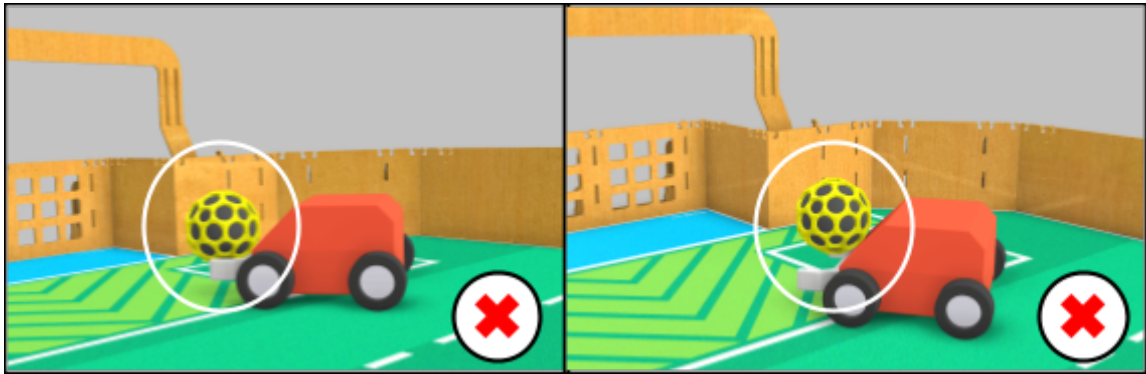
While playing, team players have to adhere to certain rules which can lead to Fouls mentioned below.

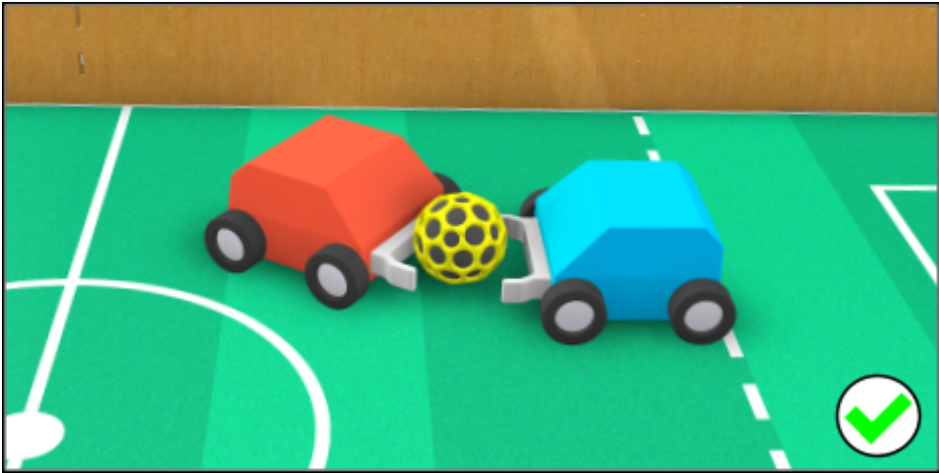

8.1. Card System: Warnings and Removals

- 8.1.1. **Yellow Card(YC):** For each foul (listed in 8.2) teams get a **Yellow Card**
- 8.1.2. **Red Card(RC):** Accumulation of 4 Yellow Cards result to 1 Red Card
- 8.1.3. **1 Red Card:** Team must **remove one (1) active robot** (team’s choice) for the **remainder of that half**. No replacement may enter during that half.
- 8.1.4. **Scope:** Yellow Cards are tracked across the entire match (both halves). They reset after the match ends and do not carry over to the next match.

8.2. Foul Systems and Penalties:

All fouls are assessed by the Referee. Points are deducted immediately from the team’s score, and some fouls also cause a restart.

Foul	Definition	Penalty	Restart
Hand Touch	Any deliberate touch of robots or ball by team members without Ref permission.	-12 pts	Reset
False Start	Robots move before the kick-off whistle/signal .	-4 pts	Reset (re-do kick-off)
Movement During Pause	Any robot moves after “Pause” is called .	-4 pts	Play resumes per Pause
Ball Carry	> 3 s intentional carry/enclose that prevents free roll-away (see 10.4).	-4 pts	Pause
			
<i>Exception: Mutual Entanglement</i>	Both robots unintentionally move together with the ball (e.g., entangled bumpers).	<i>No deductions</i>	Pause only (Ref discretion)

			
<p>Wrong Connection</p>	<p>Attempting to connect/control an opponent's robot or non-assigned device.</p>	<p>-4 pts</p>	<p>As directed</p>
<p>Goal Camping</p>	<p>Intentionally idle inside the goal area more than 5s without active defense/play (blocking the mouth).</p> 	<p>-4 pts</p>	<p>Pause</p>
<p>Crossing Sides</p>	<p>Team participants enter the opponent half of the arena/bench area during play.</p>	<p>-4 pts</p>	<p>As directed</p>
<p>Severe Misconduct</p>	<p>Dangerous mechanical action, confirmed RF/IR interference, abusive behaviour, sabotage.</p>	<p>Immediate Disqualify</p>	<p>Match/Event DQ (HR decision)</p>

Escalation: Repeated offences (same or varied) may escalate to **YC to RC** at the Ref/Head Ref's discretion, even if point penalties have been applied.

8.2.1. Timing & Measurement Notes:

- a. "**>3 s**" **carry** and "**>5 s**" **camping** are judged by the Ref's visible/count timing; partial resets of the count may occur if the robot clearly disengages.
- b. **Intent** matters: incidental brushes or brief contact that do not confer advantage may be **warned** first.
- c. **Team-level responsibility:** Fouls by **any** active robot or team member count **against the team**.
- d. Examples to understand Fouls: (Refer Clause 9)

9. Game Play Examples for Clarity of Fouls

- 9.1. **Example A: False Start:** Team A's robot creeps forward **before** the whistle at kick-off → **-4 pts to Team A + Reset** (kick-off re-taken) + YC to the team.
- 9.2. **Example B: Ball Carry:** Team B's front cage pins the ball to the wall and **moves with it for 4 s** → **-4 pts + Pause + YC**. On resume, **ball at centre, robots stay** where they are (unless safety repositioning is ordered).
- 9.3. **Example C: Goal Camping:** TeamA parks a robot **fully inside its own goal mouth** for **7s** without engaging the ball → **-4 pts + Pause + YC**. Repeated camping in the match may escalate to **YC**, then **RC** if persistent.
- 9.4. **Example D: Hand Touch:** A driver steadies a tipping robot with a hand during live play → **-12 pts + Reset**. A second incident in the event may draw **YC/RC** depending on circumstances.
- 9.5. **Example E: Movement During Pause:** After a **Pause**, a Team D robot rolls **2–3 cm** forward before the restart signal → **-4 pts**; positions otherwise held. Ref warns for control discipline.
- 9.6. **Example F: Wrong Connection:** Team E attempts to pair with an **opponent's robot** (seen in Bluetooth dialog) → **-4 pts** and warning; a repeated/intentional attempt may be escalated to **DQ** if malicious.
- 9.7. **Example G: Severe Misconduct (Interference):** Head Ref confirms TeamA used a device causing **Bluetooth jamming** near the field → **Immediate DQ** from the event.

10. Robot Regulations and Specifications

10.1. General:

- 10.1.1. Robots must comply with specifications mentioned below at the start **and throughout the match**.
- 10.1.2. Teams are responsible for maintaining connectivity and communication at all times.
- 10.1.3. All required components, tools, and spares must be brought by the team.

10.2. Core Requirements:

- 10.2.1. **Programming: PictoBlox only** for all robot logic and driver interface.
- 10.2.2. **Communication:** Manual control via **PictoBlox or Dabble** over **Bluetooth** (BLE or Wi-Fi or Classic per device).
- 10.2.3. **Microcontroller:** Any board **compatible with PictoBlox** (e.g., Quarky, Arduino Uno/Nano/MEGA, micro:bit, ESP32-BLE).
- 10.2.4. **Add on Board:** Can use any, making sure not exceeding the size limit.
- 10.2.5. **Robot Size limit: 20×20×15cm(L×B×H)** at all times—including bumpers, guards, antennas, and any moving parts/mechanism in their **most extended** position.
 - a. Robots must fit fully within the size box during inspection and at any time in play. Mechanisms that intentionally expand or flex beyond the limits are not permitted.
- 10.2.6. **Max weight:** Robots cannot exceed more than **800gram**.
NOTE: Removing or swapping any parts in mid/match is not allowed.
- 10.2.7. **Power:** Battery-powered only. Any battery compliant with standard safety norms with a **maximum rated voltage of ≤ 9 volts between any two terminals** on the robot.
 - a. Examples: 1S–2S Li-ion/LiPo (4.2–8.4 V) OK; **3S (12.6 V) NOT allowed**.
 - b. DC-DC converters are permitted **only** if **every output** remains **≤ 9.0 V**. No mains/AC, no tethers.

10.3. Allowed/Not Allowed:

The Codeavour team reserves the right to disqualify any robot it deems dangerous at any point in the competition. As follows,

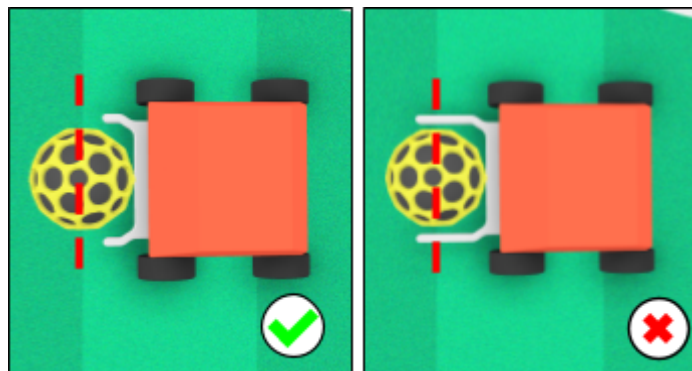
- 10.3.1. **Allowed:** Teams may design and customize their robots, provided they strictly follow all rules and regulations. The following are allowed:
 - a. **Custom frames (wood, plastics, composites, 3D-printed parts).**
 - b. **Standard fasteners (nut,bolt,screws)**
 - c. **Safe adhesives** like thread-lockers or double-sided tape can be used inside the robot (e.g., to secure wires).
 - d. **Identification:** Each team must **leave a 4 × 4 cm space on the top side** of their robot for official labeling during inspection, clearly visible from above.
- 10.3.2. **Not Allowed:** The Codeavour team reserves the right to disqualify any robot it deems dangerous at any point in the competition. As follows,
 - a. **No exposed sharp edges:** The entire design of a robot must not have sharp edges or pointy structure that may harm the Arena/ball/robot around it.
 - b. **No hazardous materials:** No dangerous, flammable, or harmful substances (fluids, powders, aerosols).

- c. **No Anchoring or adhesion:** No tethers, suction cups, sticky coatings, electromagnets, or mechanisms that anchor to the floor/walls/ball..
- d. **No Destructive mechanisms:** No devices intended to damage, wedge, flip, or trap opponents (e.g., saws, spikes, entangling tools, directed heat).
- e. **Interference:** No infrared, electromagnetic, RF, or Wi-Fi/Bluetooth jamming; only approved Bluetooth/Wi-Fi control is allowed.
- f. **Unauthorized radios:** No custom transmitters/receivers. Any device intentionally generating **RF/IR interference is not allowed.** (see Code of Conduct & Fair Play).

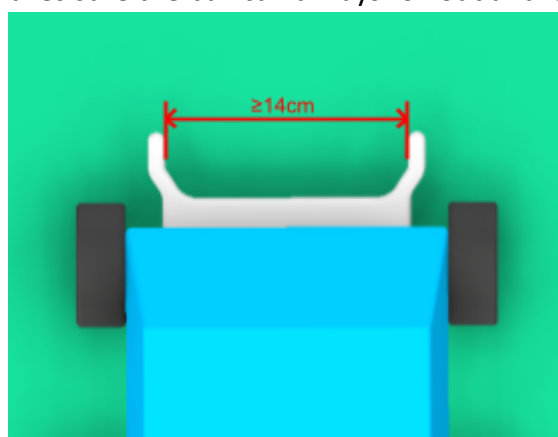
Inspector’s discretion: If a design is **unsafe** or **against the spirit** of fair play, it may be required to modify before approval—even if not explicitly listed above.

10.4. Robot Claw Rules:

- 10.4.1. **Coverage:** From any viewpoint, the robot must **not cover > 50%** of the ball’s circumference.(refer image below).



- 10.4.2. **No Grab:** The ball must remain **free to roll away** when lightly pushed by an official—no full cages, pincers, or traps.
- 10.4.3. **Claw Opening:** Your robot must have a minimum ≥ 14 cm of open space where the ball sits. This makes sure the ball can always roll out and is not trapped.



Example:

- a. **Legal:** Like holding the ball gently in a “U” shape so it can roll away.
- b. **Illegal:** Any design that traps, squeezes, or sticks to the ball so it cannot roll out freely.

10.5. Safety Reliability:

- 10.5.1. **Mechanical:** All screws and parts must be tight. Cover moving parts like belts/gears. Round off sharp edges. Robots should not drop pieces on the field during play.
- 10.5.2. **Electrical:** Cover battery terminals. Keep wires neat and tied. Use strain relief on high-power cables.
- 10.5.3. **Batteries:** Only safe batteries allowed—no swelling, leaking, or damaged packs. Referees can remove unsafe batteries.
- 10.5.4. **Weight and Size:** Robots must always meet size and weight rules, even after paint, tape, or repairs. They can be checked again anytime.

10.6. Connectivity and Control

- 10.6.1. Robots must pair and demonstrate basic manual control (forward/turn/stop) using PictoBlox or Dabble at inspection.
- 10.6.2. Use **Airplane Mode + Bluetooth ON** (or Do-Not-Disturb if Airplane Mode unavailable) to avoid call/notification drops.
- 10.6.3. Each robot must use its **own control link**. Non-essential radios must remain OFF near the field.
- 10.6.4. To prevent interference, teams should set a unique device name/channel and follow any RF channel assignment given by officials.
- 10.6.5. USB cables for charging or connectivity can be used only in the **pit area**, not on the match field.

10.7. Inspection Rules:

- 10.7.1. Only robots with a **passed inspection tag** can enter the field.
- 10.7.2. Any change to frame, wheels, controller, battery, or ball guide requires **re-inspection**.
- 10.7.3. If a team declares multiple robots, **each one must pass inspection separately**.
- 10.7.4. Referees may **re-check size, weight, and voltage anytime** during matches.

10.8. Good Practice:

- 10.8.1. Design slightly smaller (≤ 19.5 cm, ≤ 780 g) for safety margin.
- 10.8.2. Mark the front of your robot clearly for easier driving.
- 10.8.3. Keep wiring neat and secure.
- 10.8.4. Carry spare batteries or Bluetooth modules.

11. Code of Conduct and Fair Play

11.1. Principles and Behaviour:

- 11.1.1. Respect, safety, and learning first.
- 11.1.2. Be polite, professional, and disciplined. No taunting, profanity, harassment, threats, or disruptive conduct.
- 11.1.3. **Zero tolerance for discrimination** (race, gender, age, disability, nationality, beliefs).
- 11.1.4. Maintain sportsmanship—no foul play, sledging, or mocking opponents.

11.2. Mentor Boundaries and Team Roles:

- 11.2.1. Mentors/Coaches may **advise only off-field or between matches**.
- 11.2.2. No in-match control or covert signaling.
- 11.2.3. Mentors must not touch robots, the field, the ball, or control devices during live play.
- 11.2.4. Only the **team captain** may communicate with the Referee during matches.

11.3. Fair and Play Integrity:

Strictly prohibited (examples, not exhaustive):

- 11.3.1. **Anchoring/adhesion:** Hidden magnets, suction, sticky compounds, or mechanisms intended to **anchor** to walls/floor.
- 11.3.2. **Signal interference:** RF/IR/Bluetooth/Wi-Fi jamming, spoofing, or deliberate noise; **covert control** of an opponent's robot or device.
- 11.3.3. **Field manipulation:** Moving/altering goals/lines, obstructing sensors, or intentionally damaging field elements.
- 11.3.4. **Sabotage & tampering:** Interfering with another team's robot, batteries, chargers, code, or tools.
- 11.3.5. **Match fixing/collusion:** Arrangements to alter competitive outcomes (throwing games, coordinated fouling).
- 11.3.6. **Deception:** False IDs, age/category misrepresentation, or falsified documents.

Penalty: Immediate Disqualification (DQ) possible for intentional cheating; may escalate to **event expulsion** and result invalidation.

11.4. Arena Conduct:

- 11.4.1. **Authorized access only:** Enter the field with Referee permission.
- 11.4.2. **Zones clear:** Keep pits/walkways/charging areas unobstructed.
- 11.4.3. **Noise & decorum:** Reasonable tool use and celebration volume; no horns, sirens, or disruptive lights near active fields.

11.5. Safety and Operations:

- 11.5.1. **Power & charging:** Use safe chargers in designated areas; follow Li-ion/LiPo rules; no exposed wiring.
- 11.5.2. **Tools:** No flames/solvents near charging; secure sharp tools.
- 11.5.3. **Batteries & spares:** Transport in protective cases; remove from robots if instructed.
- 11.5.4. **Compliance checks:** Submit to inspections on request; unsafe items may be impounded.

11.6. Reporting, Sanctions and Escalations:

- 11.6.1. Report misconduct, safety issues, or suspected interference promptly to the Control Desk/Head Referee.
- 11.6.2. Provide clear facts and supporting logs/photos (video review not guaranteed).
- 11.6.3. Officials may apply one or more of the following, depending on severity and repetition:
 - a. **Non-foul behaviour (e.g., decorum) may receive verbal warnings. Rule infractions listed in always yield a YC.**
 - b. **Red Card (RC)**
 - c. **Match forfeit / Walkover (WO)**
 - d. **Robot removal** (unsafe or non-compliant)
 - e. **Team Disqualification (DQ)** from the event for gross/intentional violations

11.7. Media, Privacy & Inclusion:

- 11.7.1. Filming/photography is allowed if it does not obstruct officials, players, or walkways, and does not cause glare or interference.
- 11.7.2. Respect privacy and consent policies, especially for minors.
- 11.7.3. Teams needing accommodations must inform organizers at registration/check-in; approved accommodations will be shared with Referees.

11.8. Spirit Clause:

- 11.8.1. If a behaviour is **unsafe, unsporting, or clearly against the intent** of fair competition—even if not explicitly listed—the **Head Referee/Organizer** may act to restore safety and fairness, including modifying procedures or issuing sanctions.

12. Authority & Interpretation

These rules apply to **Track 3 of Codeavour 7.0**. By entering, teams agree to follow this rulebook and any official updates/clarifications.

12.1. **Who's in charge?**

- 12.1.1. **Organizer:** Sets event rules and final decisions.
- 12.1.2. **Head Referee (HR):** Oversees referees and event-level rulings.
- 12.1.3. **On Site Referee (Ref):** Controls the match and makes on-field decisions.
- 12.1.4. **Volunteers:** Support operations and communicate schedules/announcements.

12.2. **Final say:**

- 12.2.1. **During matches:** The **Ref's decisions are final** for that match.
- 12.2.2. **Event level:** HR/Organizer rulings (briefings/bulletins) override printed rules when needed for fairness, safety, or scheduling.
- 12.2.3. **Conflicts:** The **most recent official bulletin/briefing** always prevails over earlier text.

12.3. **Clarification:**

- 12.3.1. **Who:** Only the **team captain** may request.
- 12.3.2. **When:** Within **10 minutes of match end** or before the team's next game (whichever comes first).
- 12.3.3. **How:** Submit the form at the Control Desk. Evidence (logs, code snapshots) may be accepted at HR's discretion, but **video review is not guaranteed**.
- 12.3.4. **Outcome:** HR may clarify rules for future matches or uphold the original call.

12.4. **Communication During Matches:**

- 12.4.1. Teams must not talk to the Ref unless through the **captain**, and only when acknowledged.
- 12.4.2. **Arguing, delaying, or ignoring instructions** can lead to penalties or disqualification

12.5. **Updates:**

- 12.5.1. Organizers may issue updates/changes during the event. Teams must check the announcement board/channel regularly.
- 12.5.2. Safety changes override all rules.

12.6. **Safety and Spirit of the Game:**

- 12.6.1. Safety and fairness come first. Referees/organizers may pause, reset, or end a match to protect players, robots, or the arena.

13. Safety, Risk and Liability

- 13.1. Teams are fully responsible for safe construction, handling, transport, and charging of their robots.
- 13.2. Use only safe batteries and approved chargers. Do not charge damaged/swollen packs. Charge only in designated areas.
- 13.3. Unsafe robots (e.g., exposed wires, leaking or swollen batteries, sharp edges, smoke) may be stopped and removed until fixed and re-inspected.
- 13.4. Teams must follow all safety instructions from referees and inspectors.
- 13.5. Organizers are not responsible for loss, theft, or damage to robots, tools, or personal property.

14. Annexure

- 14.1. **Organizer (ORG):** Codeavour 7.0 host/authorized staff responsible for event operations, official bulletins, and final interpretations.
- 14.2. **Head Referee (HR):** Senior official overseeing referees and issuing event-level rulings/clarifications.
- 14.3. **Referee (Ref):** Appointed on-field official controlling play, timing, restarts, and sanctions for a match.
- 14.4. **Inspector (INS):** Official verifying robot compliance and safety before approval to compete.
- 14.5. **Arena / Field:** The marked play area used for matches, including touchlines, goal lines, goals, and each team's **D-box**.
- 14.6. **D-box:** The marked square placement zone in front of each goal used at kick-offs and resets for robot placement.
- 14.7. **Robot:** A team-built soccer robot meeting inspection and safety rules.
- 14.8. **Device:** The participant's phone/tablet/laptop used to wirelessly control the robot (permitted interfaces only).
- 14.9. **Kick-off (KO):** Start/restart of the robot from the centre dot on the Referee's whistle.
- 14.10. **Pause:** Temporary stoppage; ball is placed on the centre dot; robots remain where they are unless instructed.
- 14.11. **Reset:** Full restart; ball to centre and both teams re-place robots inside their own D-box as directed by the Ref.
- 14.12. **Ball in Play:** From the Ref's whistle/signal to stop; the ball is considered live unless out of bounds or a stoppage is called.
- 14.13. **Dead Ball:** Ball is out of bounds (OOB) or play has been stopped by the Ref.
- 14.14. **Out of Bounds (OOB):** Ball or robot wholly crosses a boundary line or contacts an area outside the field; restart as directed by the Ref.
- 14.15. **Goal:** a goal is considered when the ball completely crosses the goal plane, and the ball either touches the ground inside the goal post or inside the boundary of the goal post.
- 14.16. **Foul:** A rule infraction penalized by the Ref. See **Fouls & Sanctions**.
- 14.17. **Red Card:** Sanctions for misconduct or at least 5 fouls committed by the team in the match.
- 14.18. **Safety Stop:** Immediate halt ordered by the Ref/HR for hazard or field fault; follow the Ref's instructions for Pause or Reset.
- 14.19. **Match Clock:** Official time kept by the Ref; only the Ref can stop/start the clock.
- 14.20. **In-match score:** Goals scored minus foul points in a single match (as defined in **Scoring & Fouls**).
- 14.21. **League points:** Table points for standings—**Win 3 / Draw 1 / Loss 0**.
- 14.22. **Walkover (WO):** A forfeit awarded when a team fails to present a compliant robot/drive team on time as per schedule.
- 14.23. **Drive Team:** Student member(s) designated to operate the robot during the match (driver, spotter, etc.), as permitted by event rules.
- 14.24. **Control Desk (CD):** Operations point for scheduling, forms, and official communications.
- 14.25. **Bulletin / Addendum:** An Organizer / HR update that clarifies or amends rules; latest timestamp/version prevails.

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