

robotex

International



This category is in cooperation with the MRC Global Olympiad

COMPETITION COORDINATOR

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1 Introduction

2026 is a year of football, a sport that acts as a universal language, transcends cultural, linguistic, and geographical boundaries. In this category, robots become footballers and operators become spectators of the most exciting match.

2 The Competition

2.1 Rule ZERO – Zero Tolerance and Common Sense

In all sports, **Rule ZERO** applies, which states:

► **"If you are not sure whether something is allowed, then it is probably NOT allowed."**

All rules are based on **common sense**, the **spirit of the sport**, and the **safety** of all participants.

Any **deliberate misinterpretation, violation of the meaning of the rules, or attempt to exploit gray areas** for unfair advantage will not be tolerated and may lead to team **disqualification** from the competition.

2.2 Goal

The goal of the Robot Football Players of an alliance (3-in-1 alliance, 3x3 football), which consists of 3 robots is to score as many goals as possible for the opposing team.

All alliances should be from the same school or institution. A school must have 3 teams and each team must have its own Robot Football Player to form an alliance so be able to participate in this sport.

2.3 Sub-classes

- Robotex X MRC Global Olympiad Football competition takes place in two age group:
U14 - At the competition day up to 13 y.o. (including 13 y.o.) .
U19 - At the competition day up to 18 y.o. (including 18 y.o.) .
- The age group of a team is determined based on the age of the **oldest team member**.
- You must register your team to a correct age category. If during the competition it turns out, that the team is registered to an incorrect age category, the robot of this team will be disqualified from the competition. **NB!** Teams who belong to the younger age group are allowed to compete in the older age group.
- The organizers reserve the right to check the age of the competitors during the competition. In case of violation the robot of the team, who violated the rules will be disqualified.

2.4 Participants (Team – Coach)

1. Participation in the competition is team-based, not individual.
2. Each team may consist of two **(1) to three (3) members**.
3. Each team must designate up to **one (1) Robot Athlete Technician**. Only the Robot Athlete Technician is allowed in the waiting area or competition area. **The rest of the team can watch the matches behind the control spots.**
4. The team is allowed to **change the designated Technician before each attempt** on the track, to give all members the opportunity to be actively involved in the sport, although this is not mandatory.
5. The **team's coach** must be **at least 20 years old**.
6. To ensure smooth participation in the competition, the coach must have 1 assistant for every 3 teams they register in the competition.
7. Each team is allowed to have only **one robot**. **Changing robots during the competition is not allowed.**
8. Teams are not allowed to **share the same robot**.
9. If a team encounters a serious **technical issue** with their robot, they are **allowed to replace only the microcontroller or the electronic components, after obtaining permission from the Judges.**

2.5 Alliances

1. An **alliance** consists of **3 teams**.
2. In every football match, **2 opposing alliances collide**.
3. During the matches each refer to an alliance will be with the **registered alliance name**(example: If an alliance name is Giant and each team should name Giant_A, Giant_B and Giant_C) not by the names of the teams that make it up. **Coaches should ensure that their teams know the name of the alliance**.
4. **If on the day of the games a team does not come, then the alliance competes with 2 teams**.
5. **If 2 teams from the same alliance do not attend, then the only team from the alliance competes normally without replacing the absent teams**.
6. If for any reason an alliance is **disqualified** from the category, then **victory** will be awarded to the **opposing alliance** at any stage of the competition in which this occurs.

2.6 Technical Inspection and registration

The robot needs to pass technical inspection before the competition. During the inspection, it is checked whether the robot or the operator who is handling the robot meets the paragraphs requirements. **Only one team member with a robot (*the currently selected robot operator*) can come to the technical inspection. If necessary, they can have a translator or team instructor with them.** The purpose of this is to guarantee a smooth course of the competition and technical inspection.

1. **During the initial technical check** the team will be **asked questions** on the **design** of the robot and will be asked to **demonstrate** the operation of the robot.
2. The technical inspection includes inspection of the robot and controller according to the conditions described above. If he does not meet the **specifications**, he will **not be allowed to compete and will be automatically disqualified** from the event.
3. During the technical check the **"badge"** used by the alliance on its Robot Footballers **will be checked**.
4. If a **team is not in place during the initial scrutineering**, this results in the team being automatically **disqualified** from the match.
5. **After the completion of the initial inspection, the Robot Athlete is assigned its un**

ique ID code.

6. A **secondary technical check** is also carried out **before each match** by the assistant referee.
7. If, **during the competition procedure**, the referee determines that a Robot Athlete is **violating or failing to meet the prescribed specifications**, the referee has the right to **disqualify it immediately**.

2.7 Lighting conditions

The lighting in the area needs to be as close to real sunlight as possible (*Midday*), with consistent color and stability. Field cannot have shadows while the match is running. Lighting is allowed to change between matches. The competition area must be evenly lit.

2.8 Delay of the competition

When competitions start to delay, organizers have the authority to act in accordance with rules to minimize the delays and bring the competition back on schedule.

The competition will continue as smoothly as possible, eliminating any rematches or any moments that could cause delays, and instead using a less time-consuming judging system based on rules. Any objections will not be accepted during the delay, and competition will not be delayed to resolve the objections. If the robot cannot be found in the designated area, the match will result in a loss.

3 Technical Specifications

The Competition is for Robot Soccer Players regardless of the robotic package or hardware used.

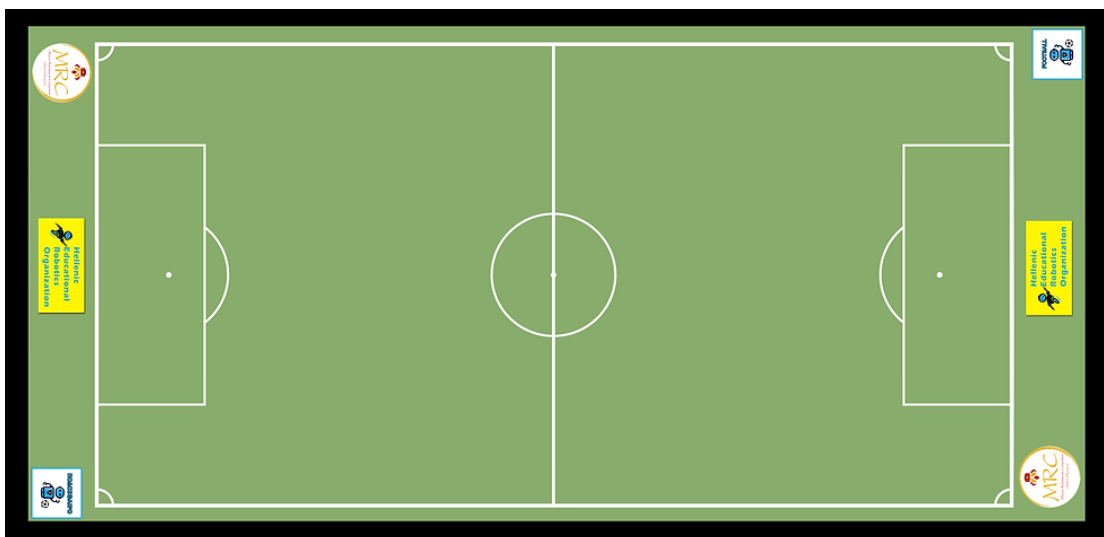
All Robot Soccer Players compete together in each age category.

1. The Robot Football Player must be remote-controlled.
2. The use of a remote control OR an application is allowed for 2026.
3. Remote control is allowed to be carried out in any way.
4. If your remote control is connected via **wifi** to your Robot Football Player you should consider that during the competition the stadium **network is not available for the teams** and visitors, but only for the needs of the Referees and the Organization Team.
5. The **maximum dimensions** of the Robot Football Player must be **20cm Width x 20cm Length**.
6. The weight of the Robot Athlete must be a minimum of 700 gr and a maximum of 800 gr.
7. The height of the robot must be a maximum of 15 cm (excluding the team's identifier — e.g., a small flag may extend above the robot).
8. To confirm the specifications listed above, the Robot Football Player will be **weighed** and must comfortably **fit in a control box**.
9. The **control box** measures **20 x 20 cm** plus two (2) mm tolerance.
10. The Robot Football Player should be placed in the control box without applying pressure.
11. The Robot Football Player **must not wear or damage the pitch or pose a threat to spectators** in any way.
12. The Robot Football Player **MUST** have a **shooting mechanism**.
13. The shooting mechanism must be motor-driven. The mechanism may share motor(s) with the drive system (wheel motors).

14. ► **CAUTION:** The shooting mechanism, at its maximum extension, must remain within the overall dimensions of the robot (20x20). The mechanism is not allowed to extend the overall dimensions of the robot in any way.
15. Each Robot Football Player is **allowed** a maximum of **4 motors** and **1 single microprocessor**.
16. The Robot Football Player must have a **start and stop button**.
17. For Football ball will be used **LEGO Mindstorms ball – Part Number 41250 (diameter 52mm)** red or blue color
18. The Robot Football Players of an alliance should bring in a **visible place** of their construction some "**signature**" that the alliance should have agreed on in advance, for example a **flag, label, color combination**, etc., so that one is immediately recognized by the referee in which alliance belongs.

4 Field

- The **field** is rectangular, with dimensions of **236.2 × 114.3 cm**.
- The **playing area** measures **197.34 × 98.42 cm**.
- The **penalty area** has dimensions of **230 × 560 mm**.
- The **goals** measure **35 cm** in length, **12 cm** in height, and **8 cm** in depth.
- The field is surrounded by a **2.5 cm thick safety frame** to protect the robots.
- The surface is **green**, made of **tarpaulin**.



- [DOWNLOAD MAT FOR PRINT](#)

5 General rules

5.1 Goal

- A goal is scored when the **ball crosses the entire goal line**.
- If the **ball**, as it moves towards the goal, **touches a defending robot** whose part is inside the goal, then the referee will charge the **defending alliance** with a **goal**.

5.2 Score

For the matches of a Group:

1. **3 points** will be awarded for each **win**.
 2. **1 point** will be awarded for each **tie**.
 3. For each **defeat 0 points** will be given.
- The alliance with the **most points from each Group** advances to the **quarterfinals**.
 - If **2 or more alliances** have the **same points** then the alliance with the **most goals** in all Group matches advances to the quarter finals.
 - If there is **still a tie** then the alliance that conceded the **fewest goals** in all Group matches advances to the quarter-finals.

For the quarter-final, semi-final, short-final and final matches:

- The alliance with the **most goals** advances to the **next phase**.
- If there is a **tie** then 2 minutes extra time is given for "**Golden Goal**". Whichever alliance scores the first goal advances to the next phase.
- If **no alliance scores** then there will be a **penalty** shootout. **Each alliance** will be given the opportunity to take **3 penalties**. Each penalty can be taken by a **different Technician** of each team in the alliance. The alliance with the **most goals** goes to the **next stage**.
- For the penalty shootout each alliance will shoot 3 penalties in turn as follows:
 - The **ball** is placed by the referee on the **center white bullet** and each Robot Football Player takes a turn and heads towards the ball to **shoot into an empty net**.
 - The robot's **wheels** are **not allowed to touch or cross the center line**. Therefore, players should hit the brakes in time. Otherwise their **penalty will be canceled and count 0 (zero)**.

5.3 Time Between Matches

Between the matches of a group, a time of **1 minute** will be given to each alliance. In this minute if a team wishes, it can **change Technician**. If the new Technician does not arrive within 1 minute, the previous Technician will continue in the next match.

5.4 Match Duration

1. The match lasts a total of **7 minutes**.
2. There is **no halftime**; teams **retain their accumulated score throughout the entire match**.
3. **Time runs continuously**, with no stoppages during the game.
4. When not actively playing, teams may make **adjustments** to their Robot Football Player.
5. Before each match, the Robot Football Player must undergo a **technical inspection** conducted by the referee.

5.5 Match Preparation – Start – Restrictions

1. At the **start of the match**, the ball is placed on the **cue ball in the center of the court**. All Robot Football Players should have **some part of them behind the white line** of the defending area.
2. The match **starts with the referee's whistle**. All Robot Soccer Players should **start moving after the referee's whistle**.
3. If an alliance **scores a goal**, then, **without stopping time**, the **ball is placed in the center of the court** by the referee and is **free for both alliances to claim again**. The **match is not interrupted but continues until the end of the 7 minutes**. If there is a Robot Football Player **on the target point** at that time, then the **ball is placed as close as possible to the target**, but **not directly in front of the robot** located there. The referee will place it to **the right or left of the center line** at the point of **intersection with the cross circle**, so that **no advantage** is given to any Robot Football Player.
4. If some of the Robot Football Players get **stuck together**, then the **referee can separate them by moving them as little as possible**.
5. The referee will **blow the whistle for "illegal marking"** if a Robot Football Player att

empting to get the ball behind an opposing Robot Football Player is found to be **pushing and dragging** him onto the pitch. After the whistle, the **ball is placed in the center of the court and play continues**, without stopping time. **If a goal is scored due to pushing, it is disallowed.**

6. The referee will whistle a **"red card"** if any Robot Football Player is found to be deliberately trying to **injure an opponent**. In this case the Robot Football Player is **kicked out of the match** and the alliance **continues with 2 Robot Football Players**. The referee places the ball back in the center of the field and the match continues with **the Robot Football Players in the position they were in when the referee blew the "red card" whistle.**
7. The Technicians are **not allowed to touch their Robot Football Players throughout the match** without the permission of the referee.
8. If the ball goes out, **outside the boundaries of the court behind the goal posts**, the referee **places the ball back on the cue ball located in the center of the court**. If there is a Robot Football Player on the target at that time, then the ball is placed as close as possible to the target, but not directly in front of the robot located there. The referee will place it to the right or left of the center line at the point of intersection with the cross circle, so that no advantage is given to any Robot Football Player.
9. It is **forbidden** for any Robot Football Player of the defending alliance **to stand still in front of their goal intentionally or move parallel to the goal line for more than 3 seconds**. If it is determined by the referee that the ball was thus prevented from heading towards the goal, the Robot Football Player is **rejected from that match** and the alliance **continues with 2 Robot Football Players**.
10. **The decisions of the referees are final. Objection** to these decisions can only be lodged with the **Headjudges. Disputing the final decisions of the Headjudges** may result in a team or alliance being **disqualified**.

5.6 Robot Football Player Injury

A Robot Football Player is deemed injured by the referee when:

- some part of it has been **disassembled**,
- **remains stationary** (lost connection to laptop, controller or tablet),
- An **injured Robot Football Player** remains out of the field of play until **repairs** are completed by the team. **After permission is given by the referee, he returns to the match.** The Robot Football Player returning to the match is **placed in the corner of the defense area, right or left at the players' choice.** It is **forbidden**, however, to place the Robot Football Player in a **position that gives him an advantage** in possession of the ball, e.g. right in front of the ball. The **referee can indicate which side** the robot will return from **if he judges that such an advantage is being created.**
- If a Robot Football Player **falls over** for any reason, with the help of the **referee it gets back up** and continues the game.
- If **all Robot Football Players** in an alliance are **injured** and out of the game, **time stops** and **restarts** when **even one Robot Soccer Player** returns to the field.
- If a Robot Football Player is **injured during the match due to the fault of the referee**, then the **timer stops** and the team is given **time to repair**. Time starts ticking again after the return of the Robot Soccer Player. The players and the ball are placed in the starting position of a match.

5.7 Ball Control – Shooting

1. A Robot Football Player should **not hold the ball in any way.**
2. The ball may **not penetrate more than 2cm** in any part of the Robot Football Player construction.
3. A Robot Football Player is **not allowed to pick up the ball** by placing it **on his body** in any way.
4. A Robot Football Player is **not allowed to pick up** the ball by placing it **under his body.**
5. If the referee detects that the ball is **trapped in any way**, he places the **ball back in the center** of the field and the Robot Football Player away from it. If the blocking is **repeated** then it is considered intentional and the Robot Football Player is **disqualified**.

ified from that match. The match will continue as normal with 2 Robot Football Players for this alliance.

5.8 The Referee places the ball back in the center of the field

- When the **match starts**.
- When a **goal** is scored.
- When the referee blows the whistle for "**irregular marking**" of an opponent.
- When the referee whistles a "**red card**" on a Robot Football Player.
- When a Robot Football Player **traps the ball** as above.
- When the ball **crosses the entire end line parallel to the goals**.

5.9 The Referee releases the ball

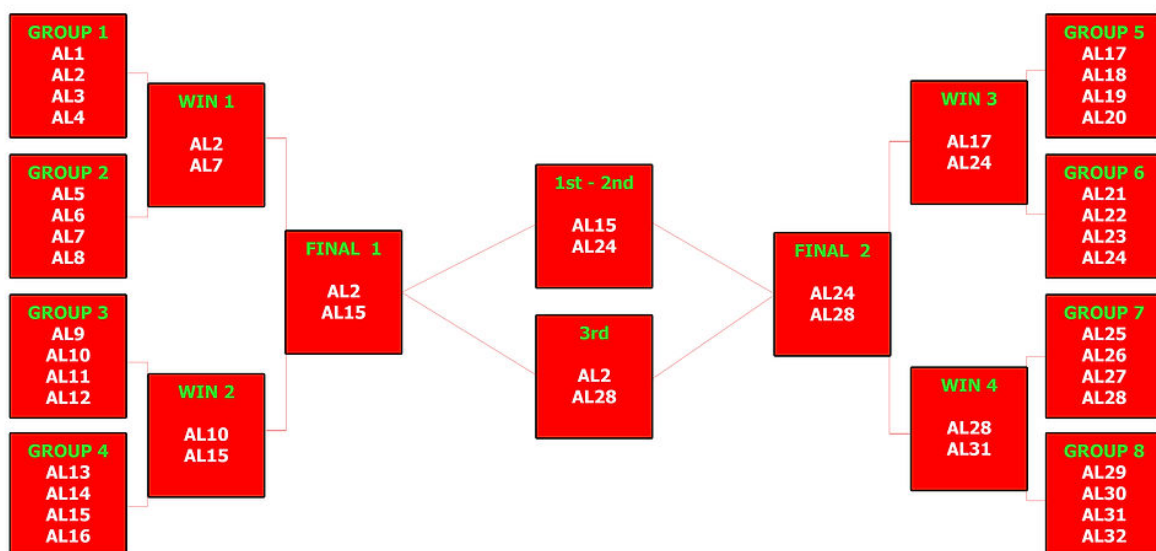
When he/she unblocks 2 or more Robot Football Players who have **trapped the ball**.

5.10 A Robot Soccer Player is placed in the corner

When an **injured Robot Football Player** returns to the game.

6 Match Procedure – Groups

- The competition is conducted with the **Group system** as shown in the example in the images below.
- The ranking in the Groups will be done 10 days before the competition in a Live draw which all teams will be notified to follow.
- The **number of synergies placed in a Group**, as well as the **number of matches between synergies** in a Group will be adjusted **according to the number of teams** participating in the Sport.



AL1 vs AL2

AL4 vs AL1

AL3 vs AL4

AL1 vs AL3

AL2 vs AL3

AL2 vs AL4

7 Disqualification

In the following cases the team is excluded from the Sport and will have to withdraw. Team results are not taken into account and are not included in the list of competition results.

1. If the team's Robot Football Player does **not comply with the requirements** specified in the rules of the Sport and the team **refuses to accommodate it**.
2. If any Robot Football Player's Technician **behaves in an inappropriate or disrespectful manner**, swears at or provokes or verbally or otherwise attacks teammates or the referees.
3. If even one of the **coaches of a team behaves in an inappropriate or indecent manner**, swears or provokes or verbally or otherwise attacks other teams, teammates or the referees.
4. In cases indicated in the **rules of the Sport above**.

7.1 Allowed

- Clean the Robot Football Player wheels only with **wet cleaning cloths or cleaning fluid** and paper.

7.2 Prohibited

- Robot Football Players to use parts that can **harm** their teammates.
- The use of **glue** to increase adhesion, (cleaning wheels with adhesive tapes that may leave glue on the wheels or suction cups). The tires and other parts of the Robot Football Player in contact with the track must not be able to lift and hold a standard **A4 paper (80 g/m²) for more than two seconds**.
- The use of **pneumatic** in all categories of robots.
- The use of **pullback** motors in all classes of robots.
- The cases listed in the **rules above**.

8 Objections

The decisions of the referees are not subject to appeals. Complaints must be submitted during or immediately after the match. If no settlement is reached with the referee, claims must be submitted immediately to the Robotex Head referee. Any later complaints will not be accepted. In case of any conflicts or disputes, the final word will be said by the referees and/or the organisers. **NB! Rude behaviour is not tolerated and the team who does not respect the referee's / head referee's decisions can be disqualified by the head referee and/or event organisers.**

9 Changes and cancellations in the rules

Changes and cancellations made to the rules are adopted by the main organizer of the competition according to the regulation of the regulatory committee of the competition.

10 Organizing

10.1 Lighting and infrared noise

The arena has at parts uneven lighting and infrared noise, which may disrupt the work of sensors during the competition. For this reason, the organizers recommend using covers or blinds for sensors, testing the sensors under intense lighting conditions or even under direct sunlight to imitate the lighting conditions of the competition arena.

10.2 Winners one-year break

Winners of 1st place cannot compete in the same category next year– they must take a one-year break from that category. At least 50% of the team must consist of non-winners. If the winners' team has three members, next year they should have at least one new member who was not previously on this team to compete in the same category again instead of taking a year off from it. *This rule is aimed at bringing new people, giving everyone a fair chance and encouraging recurring winners to try new competitions they usually do not participate in and to educate and engage new beginners in the field of robotics.* *

*** The rule complies only with Robotex International standards and is used for Robotex International competition.**

11 Revision History

- 22.08.2026 Rules are created.

