Правила состязаний «Футбол управляемых роботов»



Версия 3.2 от 12.09.2014

РОБОФИНИСТ

Controlled robots football

1. Generalities

1.1. Field

- 1.1.1. The color of the field is green.
- 1.1.2. The color of the marking lines is white.
- 1.1.3. The material if the field is felt or carpet.
- 1.1.4. The width of the marking lines is 15-20 mm.
- 1.1.5. Walls of the goal are firmly attached to the surface.
- 1.1.6. The picture demonstrates the example of the field. Real field can differ from the picture.



1.2. The ball

- 1.2.1. The standard golf ball used for the ball.
- 1.2.2. The color of the ball is orange or pink.
- 1.2.3. The diameter of the ball is 43 mm.
- 1.2.4. The weight of the ball is 46 g.

2. Robots requirements

2.1. Main specifications

2.1.1. In competition participate:

- In the «Football 3x3» category 3 robots from each team.
- In the «Football 5x5» category 5 robots from each team.



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- 2.1.2. On the start robot size must fit to the vertical cylinder of the 22cm diameter.
- 2.1.3. Robot height must not exceed 22cm.
- 2.1.4. The robot must not exceed this size during the game. The robot can have kicking mechanism with utmost position also fitting specified size.
- 2.1.5. Robot weight is not limited.
- 2.1.6. Each robot controlled by one operator.
- 2.1.7. Control can be performed by any wireless communication channel. It is allowed to use any devices for the remote control.
- 2.1.8. Robot's body must not cover more than 50% of the ball.
- 2.1.9. Each robot must have vertical flagpole as axis for the fixation of the flag corresponding to the team.
- 2.1.10. Robot's number must be placed on the robot's body and must be easily visible.
- 2.1.11. Wires must be fixed on the robot's body to prevent interference with other robots.
- 2.1.12. Goalkeeper robot must have distinctive features (if allowed by the referee, the robot that came to the goal position in the beginning of the time can be considered as a goalkeeper).

2.2. Additional specifications

- 2.2.1. It is recommended to equip robot with the external plastic or carton cylinder cover with the hole for the kicking mechanism.
- 2.2.2. The robot must not capture the goal during the game. Capture means covering more than 50% of the ball by the robot's body.

3. Referees

3.1. Authorities of the referees

3.1.1. Each match is controlled by the referees which have all the authorities directed to the compliance of the game rules.

3.2. General rights and responsibilities

- 3.2.1. Provide the compliance of the game rules.
- 3.2.2. Check the eligibility of the robots' equipment.
- 3.2.3. Provide the absence of the outsiders on the field.
- 3.2.4. Only the referees are allowed to walk on the field and touch the robots.
- 3.2.5. Remove all the details fallen from the robots out the field.

3.3. Rights and responsibilities of the main referee

- 3.3.1. At his own discretion stops the game because of the detected violations.
- 3.3.2. Resumes the game after the stop and elimination of the violation.
- 3.3.3. Has a right to take disciplinary actions against violating robots by making a warning or removing the robot from the field.
- 3.3.4. Has a right to consult with other referees about the controversial situations.
- 3.3.5. Makes final decisions during the game.

3.4. Rights and responsibilities of the assisting referees

- 3.4.1. To control activity of the robots on the field during the game.
- 3.4.2. Notify the main referee about unnoticed violations or other situations on the field.
- 3.4.3. To help in the controversial situations.

3.5. Referee's decisions

- 3.5.1. Referee's decisions about the facts related to the game moments are considered final.
- 3.5.2. Referee can change his decision before the game is resumed.



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3.6. Referee's signals

- 3.6.1. During the game referee makes the whistle signals.
- 3.6.2. One whistle during the game means that referee stops the game. Resumption of the game occurs also by one whistle.
- 3.6.3. Double whistle means end of the time/match.

4. Players (robot operators)

Control the robots during the game

4.1. Rights and responsibilities

- 4.1.1. Each robot controlled by only one player.
- 4.1.2. Listen to the referee's signals and commands.
- 4.1.3. Can notice referee about any violation during the game.
- 4.1.4. Must be outside the field behind corresponding goal during the game.
- 4.1.5. It is strictly prohibited to enter the field during the game.
- 4.1.6. The player can touch robots in action only after referee's permission.
- 4.1.7. The play can take robots during the timeouts between times.

5. The game

5.1. The goal of the game

5.1.1. To score maximum goals during the match.

5.2. Regulations

- 5.2.1. The game is played according to the Olympic system¹.
- 5.2.2. The match consists of 2 times 3 minutes each. There's a timeout between no longer than 2 minutes.
- 5.2.3. In the final matches duration of the time is 5 minutes and the timeout is no longer than 5 minutes.
- 5.2.4. Additional time can be played so as bullet series and/or the game with reduced team size if the draw is not allowed.

6. Game moments

6.1. Preparations

- 6.1.1. The die is cast and the winner team chooses to kick off or to pick the field side.
- 6.1.2. By the second time teams change the field sides and attack opposite goal. The teams can ask the referee not to change the sides and goals.
- 6.1.3. The team whose rival kicked off in the first time kicks off in the second time.
- 6.1.4. The team is forfeited if there not robots of this team at the beginning of the match/time.

6.2. Start

- 6.2.1. At the start of the game the robots must be placed on the corresponding field sides.
- 6.2.2. At the start of the game the ball is placed in the center of the field.
- 6.2.3. The rivals of the team that kicks off must be outside the central circle until the ball is kicked off.
- 6.2.4. The game starts after the whistle of the main referee.
- 6.2.5. The ball is considered as kicked off after the first touch with the robot of the team that kicks off.

¹ In case of large amount of the participants qualifying matches are played: each team play 2 games with 2 other teams.



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6.3. The goal kick

6.3.1. is played:

- if the goalkeeper is holding the ball more than 2 seconds and there's opposite team's robot in the goalkeeper zone.
- if the opposite team's robot touched the goalkeeper in the goalkeeper zone and the ball is also in the goalkeeper zone.
- if the opposite team's robot kicked the ball and it crossed the goal line (or its extension)
- 6.3.2. The ball is placed in the goalkeeper zone.
- 6.3.3. Opposite team's players must move outside the goalkeeper zone by the distance not less than 50cm.
- 6.3.4. After the whistle the ball is kicked off by the goalkeeper or other player.
- 6.3.5. Notice:
 - During the attack the ball can immediately leave the goalkeeper zone. In this case the game continues.

6.4. The corner kick

- 6.4.1. Is played if the team's robot kicked the ball and it entirely crossed the goal line (or its extension).
- 6.4.2. The ball is placed to corner closest to the place where the ball crossed the goal line.
- 6.4.3. Team's players must be outside the corner by the distance not less than 50cm until the ball is kicked off.
- 6.4.4. Opposite team's player kicks off the ball. The ball is considered in action of it was kicked off and moved.

6.5. Free kick

- 6.5.1. Free kick is appointed by the referee's whistle because of the capturing the ball by the opposite team.
- 6.5.2. The ball is placed to the point where it was captured.
- 6.5.3. The ball is kicked off after the referee's whistle.

6.6. Controversial ball

- 6.6.1. In the case of clinch² longer than 5 seconds, referee can decide to play the ball. Then the referee stops the game by the whistle and places the robots and the ball at his own discretion and gives the whistle to continue.
- 6.6.2. Recommendation to the players:
 - If the game stops because of this case please move to the distance not less than 50cm from the clinch point.

6.7. Out

- 6.7.1. Is played if the ball left the field through the side line.
- 6.7.2. The ball is placed in the point where it crossed the line and is kicked off by the opposite team after the referee's whistle.

6.8. Goal

- 6.8.1. The goal is considered scored when the ball entirely crosses the goal line and there are no violations from the team that scored.
- 6.8.2. After the goal the ball is placed in the center of the field. The team that missed the goal kicks off the ball.

² Clinch is the situation when the robots are not moving or circling grappled.



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6.9. Robot replacement

- 6.9.1. The robots can be replaced during the game (e.g. if the robot lost connection with the remote control).
- 6.9.2. There is no limitation to the number of replacements.
- 6.9.3. Replacement procedure: the player asks the referee to give (remove from the field) the robot that must be replaced by telling its number; after that the new robot enters the field in the any place on the field's border.
- 6.9.4. The robot that was removed by player can enter the field again to replace other robot.

6.10. Restart

- 6.10.1. Restart of the robot/robots is possible if it lost the connection with the remote control (or the battery is low or other problem) at the beginning of the time or during the game.
- 6.10.2. By the decision of the referee the robot is removed from the field and is given to the operator for recovery. The game is not stopping.

6.11. Finish

- 6.11.1. The game ends after the end of time allotted for the match.
- 6.11.2. The game ends because of the forfeit of one of the teams.
- 6.11.3. By the decision of the referee the game can be ended ahead of time.

7. Additional game

7.1. Additional time

- 7.1.1. Additional time is played if the draw is not allowed but happened.
- 7.1.2. Additional time is played until the first goal.

7.2. Bullet game

- 7.2.1. Bullet game is appointed after the additional time is there was no winner.
- 7.2.2. Each team plays 3 bullets in turn.
- 7.2.3. One team nominates the goalkeeper and the other nominates the player. First team to play the bullet is the team whose rival kicked off in the last time.
- 7.2.4. The ball is placed in the center of the field.
- 7.2.5. After the whistle the player tries to score the goal.
- 7.2.6. The player has 30 seconds.
- 7.2.7. The game continues
 - until the ball is out the field
 - until the goalkeeper is holding the ball for more than 2 seconds or the opposite team's player touches the goalkeeper
 - until the goal or the end of time.
- 7.2.8. The goalkeeper is not allowed to leave the penalty zone.
- 7.2.9. If after the bullet series there's no winner then, by the referee's decision, the teams either play the bullets in turn until the first goal or play "1x1" match. By the decision of the referee the game can be ended ahead of the time.

7.3. "1x1" game

- 7.3.1. The game can be appointed by the referee if there is no winner after the bullet series.
- 7.3.2. Each team nominates one robot.
- 7.3.3. The ball is placed in the center of the field, the robots are placed on the corresponding sides of the field.



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- 7.3.4. After the whistle the ball is considered in action.
- 7.3.5. Any violation is considered as violation in usual match.
- 7.3.6. Notice: in the goalkeeper zone the player becomes the goalkeeper.
- 7.3.7. By the decision of the referee the game can be ended ahead of the time.

8. Penalties

8.1. Warning is made for

- 8.1.1. capturing the ball by the robot
- 8.1.2. hooking the other robot by the wires
- 8.1.3. postponing the game resuming
- 8.1.4. damaging the ball or the field
- 8.1.5. entering the field by the robot operator
- 8.1.6. attacking (or holding) the goalkeeper in the goalkeeper zone if the ball is outside
- 8.1.7. touching the robot on the field by the operator during the game without referee's permission

8.2. Disqualification

- 8.2.1. After 3 warnings one of the robots of the guilty team by the decision of the referee must immediately leave the field until the end of time.
- 8.2.2. If there are no more robots after the removal, the team is forfeited.

9. Winner determination

- **9.1.** The teams are divided into 2 categories:
 - 9.1.1. 3 robots in team;
 - 9.1.2. 5 robots in team.
- **9.2.** In each category the winner is determined independently from other category.
- 9.3. The winner of the match is the team with greater number of scored goals.
- 9.4. Scoring points for the match:
 - For each win the team scores 3 points.
 - For each draw the team scores 1 point.
 - For each loss the team scores 0 points.
- **9.5.** In the Olympic system (play-off) the team with the maximum number of points for the match moves ahead.
- **9.6.** During the qualifying matches the points are taken into account to determine the teams that will pass to the play-off. Number of teams that pass to the play off is multiple by 4.