## RobotChallenge – Robot Rugby Rule

Note: All rules are subject to change without notice.

Name of Event: Robot Rugby

**Short Description:** The game is a team (registered with one captain from among the players) Both use a robot (radio controlled type) originally manufactured in a defined court according to the game rules.Each other competes in the number of goals.Each team need a team leader.

#### Changelog

18.06.2023 The revised 1.1 Field Dimensions/ 2.1 General Robot Specifications / 3.6. Resume of the game

20.12.2020

The revised content of the Rules relates to 6. Foul

## **1. General Requirements**

#### **1.1. Field Dimensions**

Junior& Senior			
Length	350cm		
Width	150cm		
The distance from the center of	150cm		
the court to the goal area			
The goal area length	25cm		
The goal area wide	150cm		
The distance from the center	75cm		
kick-off points of the court to two			
other kick-off points on both			
Sides			
Protective wall	10cm		
•	•		

As shown in the figure:

- A. The black circle is the kick-off points.
- B. The green area is the game field area.
- C. The red area is the goal area
- D. Outside the blue area is the remote control robot area for the players. The distance is about 50cm-100cm.

## 1.2. Ball

The ball is oval and made of rubber, and has a length of 16cm to 19cm, a diameter of 10cm to 12cm, and a weight of 160g.

As shown in the figure:



## 2. Requirements for Robots

## 2.1. General Robot Specifications

	Junior	Senior
Robot size	less than 20cm $ imes$ 20cm $ imes$ 20cm	
Weight (No remote control)	less than 1.5KG	less than 3KG
Robot Extension	After the start of the game, the robot can expand its size.	
Robot number	3 robot and 3 player (Less than 3 players are allowed to	
	register)	
Robot ID	Before the start of the game, each team robot needs to	
	attach numbers 1, 2 and 3 respectively	

## 2.2. Class Specifications

	Junior	Senior
Robot Requirements	Controller and motor must be LEGO EV3/NXT or VEX IQ, sensor and structure are not limited.	not limited
Robot Controller	Limit 1 controller per robot	not limited
Motor	The number of motors per	not limited

	team is limited to no more than 9 motors.	
Game field	The material of the field is	The material of the field is
	paper or cloth.	carpet. Please pay
		attention to tire skid-proof.
Remote control	Lego EV3/ NXT/Spike	Restrict the use of 2.4
	controller, limit the use of	band remote controllers
	Lego controller as a	(including Bluetooth control
	remote control, please pay	remote controllers)
	attention to Bluetooth	
	matching debugging before	
	the competition. VEXIQ	
	equipment, please use the	
	corresponding remote	
	control.	

## 3. Game

#### 3.1. Prohibited matter in game

- A. Do not incorporate a jamming device.
- B. Do not suck on the ball itself or hide it intentionally.
- C. Do not mount a device to fix the ball to the robot.
- D. Do not use parts that damage or stain the coat.
- E. Do not set up a device that contains liquid, powder and gas and sprays on the other.
- F. Do not incorporate an ignition device.
- G. Do not incorporate a device that separates the robot body.

## 3.2. Game time

- A. The match takes three minutes.
- B. Measurement of the interruption, resumption and termination of the game shall be at the discretion of the referee.

## 3.3. Start of the game

- A. The team follows the instructions of the referee, and places the robot in the goal area in the court. (A part of the robot should not appear in the playing area.)
- B. The referee put the ball in the center ball place, confirmation of the readiness of both parties. When the referee whistles, the game begins

## 3.4. End of the game

The game ends with a referee's whistle, both teams stop operating the robot.

## 3.5. Interrupt the game

The game will be suspended if any of the following conditions occur during the



game:

- A. When the ball jumps out of the side line.
- B. When it is judged that the game is in a scrum state and the game does not progress.
- C. If the referee determines that there is a risk of interfering with the game progress.

#### 3.6. Resume of the game

The resumption of the game starts as follows:

- A. To resume the game after the goal, put the ball in the center ball place, and the team that scored a goal placed the robot at a position 25 cm or more away from the ball. The team who scored points places the robot in the goal area and resumes with a signal from the referee.
- B. When the ball jumps out of the game field. The ball in the ball place closest to the position where the ball came out, and the team who has not put the ball in a position at least 25 cm away from the ball. The team who has released the ball places the robot after the line 75 cm. away from the ball position and resumes by the referee's signal.

The resumption after the interruption of the game shall be made promptly. However, if the referee determines that the reopening of the game has been delayed, the team shall be warned

#### 3.7. Continue the game

If the robot goes out of court during the game, the game shall continue. In the case of the preceding paragraph, if the robot is pushed back into the court by its own power or the opponent robot, the game can be continued. In addition, after a goal loss or interrupt the game, he shall be able to return to the court.

#### 3.8. Player substitution, operation time and maintenance

- A. Substitution of players and robots during the game is free, and the substitution can be made with the permission of the referee before reopening of the game after half time, score loss and suspension of the game. In addition, it will be done promptly so as not to disturb the progress of the game.
- B. Each game can have an operational time of 30 seconds each time. Acquisition of the operation time shall be declared from the supervisor or the captain to the referee and obtained permission after the score loss and when the game is suspended.
- C. If it is determined that the robot can not be played due to a failure or the like during the game, it can be evacuated out of the court according to the instruction of the referee.
- D. Robots can be maintained during the game only in the designated area.

#### 3.9. Leaving

If a matcher falls under any of the following items, he / she will be ordered to leave. Robots and players (pilots) who have been dismissed can not

participate in the game.

- A. When it violates the "standards of robots" .
- B. If you make a robot that violates the "Prohibited items " mentioned and you enter the game.
- C. If the robot fires or if the referee determines that the situation is the same as the fire.

## 4. Scoring

The goal is to give one point.

- A. The robot is united with the ball and at least a part of the ball enters the opponent's goal area.
- B. When the robot and the ball are separated and only the ball enters the opponent goal area, a score is recognized when the team robot touches the ball.
- C. If you decide to win or lose by defeat or disqualification, give 5 points to the winner and 0 points to the loser. (The disqualified person's score will be void.)

# 5. Warning

It will be a warning if the player has performed any of the following actions:

- A. If you receive two warnings, give the opposing team one point.
- B. When a player or part of a player (such as a propo) gets in the court during the match. However, this is not the case after the referee's sentence.
- C. If the robot operates before the referee's start notification.
- D. If there is an act that seems to harm the fairness of the game otherwise.

## 6. Foul

In case of the following circumstances, it shall be considered as a violation of the rules:

- A. Before the referee starts the game, the robots shall not start or expand its size. If the same team robot has 2 consecutive violations, the team will be warned once by a yellow card.
- B. The referee did not declare that he was allowed to take the robot, and the team members should not touch the robot, otherwise the referee will give a yellow card warning once.
- C. If the same player is shown two yellow cards by the referee, who will be sent out of the game with a red card, and the team will be less than one player and the robot.
- D. Do not damage the opponent's robot. If the case is serious, the saboteur will be directly punished with a red card. In case of any more serious destructive behavior that the referee thinks, the destructive team will be directly judged negative, and the score will be zero, and the opponent will win by adding 5 points directly.
- E. At the end of the group match or knockout match, if the score is the same, the referee will compare the number of yellow or red cards obtained by

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the players	the players of both sides to judge the winning team, as follows:		
Case	Yellow Card	Result Judgment	
Case 1	Only one team of AB team was given	The team without yellow card	
	a yellow card	will win by adding 1 point	
Case 2	All AB teams were given yellow cards,	Team A wins by adding 1 point	
	while A was given less yellow cards		
Case 3	All AB teams were given yellow cards,	Team B wins by adding 1 point	
	only A has red cards		
Case 4	All AB teams were given yellow cards	The team with a yellow card	
	and the same red cards	wins by adding 1 point	
Case 5	Neither team AB were given a yellow	The group match is evenly	
	or red card	divided, and the knockout	
		match is won by the golden	
		ball	

# 7. Disgualification

If a matcher does any of the following actions, he / she will be disqualified and will not be ranked.

A. In the case of violating the opponent team or the referee or Linesman, etc., slandering or any other action contrary to the spirit of fair play.

# 8. Request to suspend the game

If a player is injured during the game and can not operate the robot, he may request the game be suspended. However, if either party scored on the referee's "stop game" statement, the score is acceptable.

# 9. Declaring Objections

- A. No objections shall be declared against the judges' decisions.
- B. The lead person of a team can present objections to the Committee, before the match is over, if there are any doubts in the exercising of these rules. If there are no Committee members present, the objection can be presented to the judge before the match is over.

# **10. Flexibility of Rules**

As long as the concept and fundamentals of the rules are observed, these rules shall be flexible enough to encompass the changes in the number of players and of the contents of matches. Modifications or abolition of the rules can be made by the local event organizers as long as they are published prior to the event, and are consistently maintained throughout the event.

# 11. Liability



- A. Participating teams are always responsible for the safety of their robots and are liable for any accidents caused by their team members or their robots.
- B. The RobotChallenge organization and the organizing team members will never be held responsible nor liable for any incidents and / or accidents caused by participating teams or their equipment.