Soccer Robot 1x1

Open

GAME RULE

NATIONAL QUALIFIERS FOR WORLD ROBOT GAMES 2026

Bangladesh National Round | Organized by Tech Autocrats

Section 1 Participant

Article 1

1.1 There is 1 member per team with 1 robot. Age category is **Open** (ages 8 to 99).

1.2 Every team may or may not have teacher/mentor but each team must have only 1 person (1 teacher or mentor can supervise multiple team).

1.3 Each participant can play only one team

Section 2 Playing field and components

Article 2 About the playing field

2.1 It is a flat field, but there may be a seam not exceeding 3 millimeters high. The field size is approximately 90 x 180 centimeters (3 x 6 feet) and may change without prior notice depending on the actual competition area while still maintaining the field's format.

2.2 The field floor color is green with the white penalty lines, center line and circle, and penalty area all white, as shown in Figure 1.

2.3 The field is enclosed by a boundary wall on all sides, approximately 10 to 15 centimeters high. The ball remains in play when it rebounds off the wall.

2.4 There are two goal posts, 40 cm wide, 25 cm high and 15 cm deep.

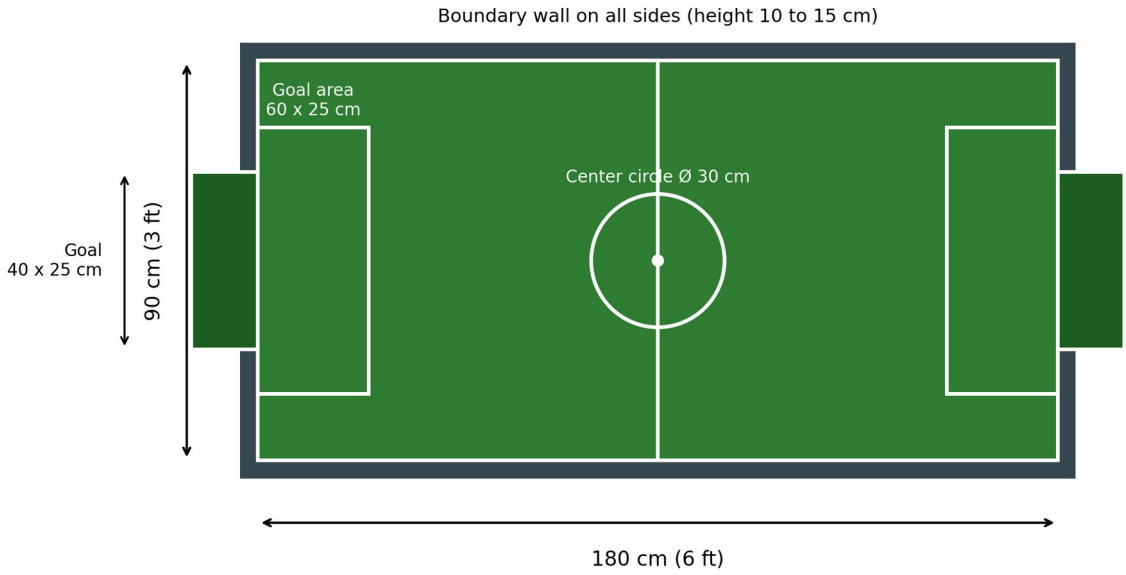

Figure 1 - Soccer 1x1 robot competition field

Section 3 Robot requirements

Article 3 Technical Requirements

3.1 Robot size must not larger than 25 x 25 cm. with no limit in height. The robot must be able to place inside a 25 x 25 cm. box which will be provided on the competition day. Weight is not more than 1,000 grams (1.0kg.) including batteries.

3.2 The control board, number of motors, external motor driver boards, and sensors must comply with the specifications as follows:

3.2.1 Participants are permitted to use any robotic platform of any nature so long as the programmable microcontroller is the main processing unit of the robot. No limit number and kind of motors, allow any external motor driver board and the no limit number of sensors.

3.2.2 If using an external motor driver board, it must be operated or controlled only through the microcontroller board following the Figure 2. **Using a motor driver board alone to drive the robot's motors is not permitted. Violation of this rule will result in disqualification from the competition.**

3.3 If the same violation occurs again in subsequent matches, the judges **shall disqualify the entire team from the competition.**

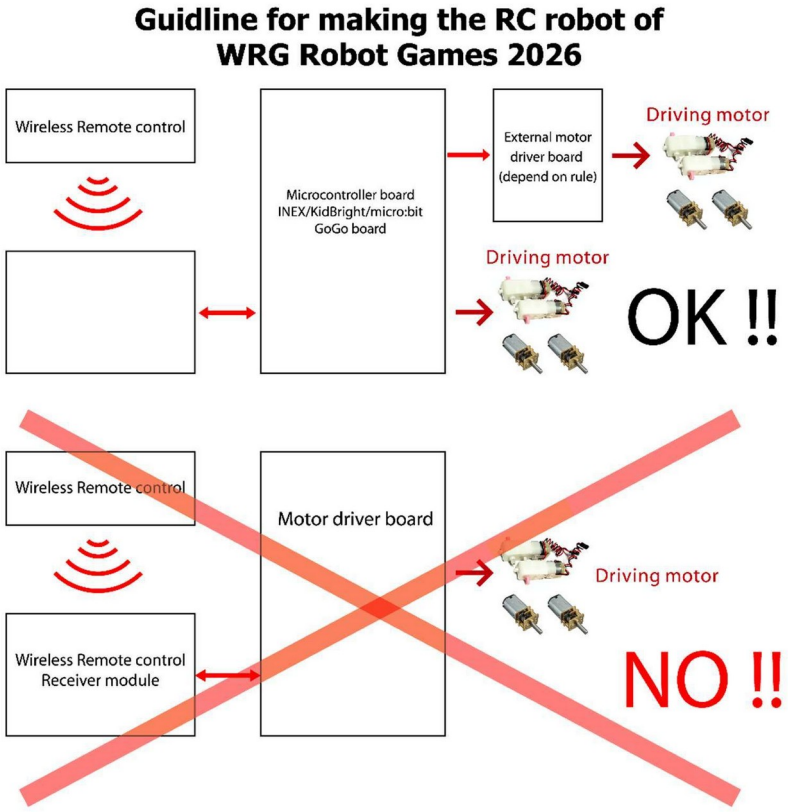

Figure 2. Guide line for making the remote control robot of WRG 2026

3.4 The robot must move on the ground without any restrictions on its movement pattern.

3.5 The robot cannot be separated or expanded during the competition, except for driving the mechanism to shoot the ball.

3.6 The robot moves autonomously or is controlled by remote control, regardless of the form of the remote control.

3.7 Participants of each team must prepare for any interference from radio waves or infrared light of the remote control during training and competition.

3.8 There is no limit on the origin and number of mechanical parts and accessories, molded from 3D printers and modified from toys.

3.9 The fastening of screws, nuts or any fastening devices in the robot must be done tightly. If during the competition, any parts fall off, break or break into the field, the referee will remove them and allow the competition to continue. The referee cannot be held responsible for the consequences during the removal of the parts that fall off the field.

3.10 There is no limit on the specifications of the computer used to program to control the robot.

3.11 Participants must install the battery tightly and prevent damage from possible collisions between the robots.

3.12 The robot should be able to move the ball.

3.13 It is not allowed to attach blades or any sharp objects to the robot.

3.14 It is not allowed to attach sheets of material or scoop that are angled in a manner similar to sumo robots to the robot.

3.15 The robot must not throw, throw or shoot any parts or materials other than shooting balls in the competition field.

3.16 There must not be any parts designed to pick up, grip or hold balls to the robot.

3.17 A robot may be equipped with a mechanism for dribbling or pushing the ball to control its movement. The maximum width of this mechanism must not exceed 4 centimeters.

3.18 The robot must be strong because it may collide with the opponents at any time.

Article 4 Prohibition

Any equipment used to damage the competition area is not permitted.

Section 4 Competition Mission

Participants must control the robot to bring the ball into the opponent's goal, similar to a human soccer match. The team that scores more points when the time is up is the winner.

Article 5 Competition Time

5.1 The competition will be conducted using one of the following two time's formats. The game organizer will select the official format and announce it to all participants on the official practice day.

5.1.1 Four-Minute Format : The total match duration is 4 minutes, divided into two halves of 2 minutes each.

5.1.2 Three-Minute Format : The total match duration is 3 minutes, conducted as a single continuous round.

5.2 The game organizer may apply different competition time formats for the first round and the knock-out round. The selected formats will be announced to all participants on the official practice day.

Article 6 Goals

6.1 Unofficial goals or scores are counted at all times. When the ball enters the goal correctly once, it is counted as 1 goal.

6.2 Official goals or scores are counted when the time is up.

6.3 A ball is considered to have scored a goal when it crosses the goal line and enters the entire inside area of the goal, regardless of whether or not it is in the possession of the ball by any robot.

6.4 The team that scores more goals or points when the time is up is the winner and receives 3 accumulated points.

6.7 In the event that the score is the same when the time is up, it is considered a draw. Each team receives 1 accumulated point.

Article 7 About the ball

7.1 The ball used in the competition is a spherical ball, which may be made of rubber or synthetic fibers, is soft and does not bounce much. Only 1 ball is used during the competition. The ball may be changed at any time during the match in case it goes out of bounds, in order to ensure the continuity of the match.

7.2 The ball shall have a diameter of no more than 14 centimeters (or size 2 of standard soccer ball size) and shall weigh no more than 200 grams. The organizer may use a smaller ball suited to the field size. The official ball will be announced on the practice day.

7.3 The ball may have any pattern or color. The referee cannot guarantee any engineering effect on the performance of the competitor's robot.

Section 5 Competition format

Article 8 Organization of the competition

8.1 The competition system in the first round is divided into groups of 3 or 4 teams, competing against each other. The winning team in each match will receive 3 points. The losing team did not receive any point. Both teams receive 1 point for draw result.

8.2 The first round of the competition will select the 1st and 2nd place teams to advance to the next round.

8.3 The competition in the second round until the final round is a knockout stage. The pairing will be drawn before the competition. The robot team that scores more points will advance to the next round. The losing team will be eliminated.

8.4 From the second round onwards, if the competition ends in a draw, a penalty shootout will be held with 3 goals per team. The team that scores more points will be the winner. If the draw is still a draw, the result will be decided by alternating penalty shootouts with 1 goal per team and 3 goals per opponent. The team that scores more penalty kicks will be the winner.

8.5 From 8.4, if after three rounds of kicks, the teams have scored an equal number of goals (or neither team has scored any goals), additional rounds of one kick each are used until one team scores and the other misses. This is known as sudden death. The team that scores the most goals at the end of the shoot-out is the winner of the match.

8.6 The losing teams in the quarter final round earn the 3rd runner-up award, a total of 4 teams.

8.7 The losing team in the semi-finals earn the 2nd Runner-up, 2 teams in total

8.8 Final round, the winning team is the champion, the losing team is the 1st Runner-up.

Section 6 Starting, Stopping, Continuing and Ending the match

Article 9 Starting the match

9.1 Before starting the match, the referee will place the ball at the center of the field.

9.2 The participants must choose the field and start the game first. The referee may use the coin toss method.

9.3 The attacking team's robot (the team that starts first) will be placed near the ball in its own territory. The defending team's robot must be placed outside the center circle of the field at any position in its own territory.

9.4 Then turn on the power switch for the robots. The participant must test that they can control the robot from a distance and move away at least 30 centimeters from the edge of the field behind the goal. Then wait for the signal to start the match.

9.5 When the referee gives the signal, the attacking team must force the robot to start working to play the ball. As soon as the ball is moved out of the center of the field, the opponent's robot can start moving immediately.

9.6 The participant must use the remote control to control the robot only within the CONTROL AREA. If it goes out of the area during the match The referee will give the opponent a penalty kick every time the rule is broken.

Article 10 Competition characteristics, stopping and continuing the game

10.1 When the referee gives the signal to start the game, the participant should control the robot to control the ball in order to bring the ball into the opponent's goal area as much as possible.

10.2 The robot must not hold, pick up, hold or lift the ball with the robot. If the robot uses parts to support the ball, it must not support more than 50% of the ball's total size.

10.3 The ball cannot go out of the field because of the boundary wall and remains in play when it rebounds off the wall. If the ball becomes stuck in a corner or between a robot and the wall for more than 10 seconds, the referee will restart play by placing the ball at the nearest corner of the goal area.

10.4 If the two robots become tangled and cannot continue playing, the referee will pause the match and restart from the starting positions.

10.5 When the ball enters the goal, the game time will stop. The team that lost the goal will place the ball at the center of the field and wait for the referee to signal to continue playing.

10.6 If the participant touches the robot during the game without the referee's permission, the referee will award a penalty kick to the opponent. If the violation is repeated, the referee will order the robot to be removed from the game.

10.7 When a robot has a problem and cannot continue the mission, the robot must be removed from the field for repairs and the game time will continue.

10.8 The robots of both sides must be moving at all times. If any robot does not move for 15 seconds, it must be removed from the field immediately and brought back to the field again when it is fixed. The referee must be notified in advance.

Article 11 End of the game

The game will end when :

11.1 All robots of both teams are damaged to the point where they cannot continue playing before the game time ends.

11.2 The game time is over.

11.3 Both teams are ordered to stop the game.

11.4 When the game ends, the referee will record the results immediately.

Section 7 Violations

Article 12

If a participant violates the provisions of Sections 4, 13 and 14 or any of the provisions, it will be considered a violation of the rules.

Article 13

A participant who insults or despises his opponent, whether by words or actions, or makes the robot make sounds, display messages or display gestures that are insulting or despising his opponent, will be disqualified.

Article 14

If a participant performs the following acts, it will also be considered a violation of the rules:

14.1 Do not perform any acts that interfere with the operation of the opponent's robot.

14.2 Perform any acts that cause the competition to stop without reasonable cause.

Section 8 Penalties

Article 15

Those who violate the rules in Section 7 will be immediately terminated. If they repeat the violation, they will be disqualified from the competition.

Article 16

If the team's mentor commits the violation, all teams under his supervision will be disqualified from the competition.

Section 9 Damages and Accidents in the Competition

Article 17 Requesting to Stop the Competition

The referee is the final judge.

Article 18 Robot Repairing

18.1 The contestant may repair the robot at any time during the competition, while the timer continues.

18.2 The repair must be done in the repair area and only with light tools. Heavy tools such as drill presses and cutting machines are strictly prohibited.

18.3 The robot and the contestant must not be changed during the robot repair.

18.4 The robot that has been repaired may return to the field again by informing the referee.