

**GUIDE BOOK**



**WIRC**

**ROBOT SOCCER RC  
BASIC**



## GAME DESCRIPTION

To improve teamwork and evaluate participants' ability to design robots with high stability and the ability to control robots to play soccer.

## PARTICIPANT TERMS AND CONDITIONS

- The competition is open to participants from Indonesia and the Indonesian Foreign participants through the following categories :
  1. Junior Category [age of Under 12 years old]
  2. Senior / Open Category [age of under 19 years old]
- Each team consists of a maximum of 7 participants including. Each participant (except assistant teacher/team manager) is only allowed to register join a team only.
- Team registration must be done online at the website.
- Eating & drinking are not provided.
- The Robot Kit is not provided by the committee

## ROBOT RULE

### ROBOT SOCCER RC JUNIOR

#### Robot Specifications.

- Each team must have two robots with clear identification (color, number, logo/team name).
- Each team must have its own robot; sharing the same robot between teams is prohibited during the competition.
- Maximum robot dimensions (L x W x H) are 15x15x15 cm.
- Maximum robot weight is 500 grams.
- Maximum battery voltage is 9 volts, measured from the battery terminal/connector.
- Yellow DC TT gearbox motors are required, as shown in the example below:

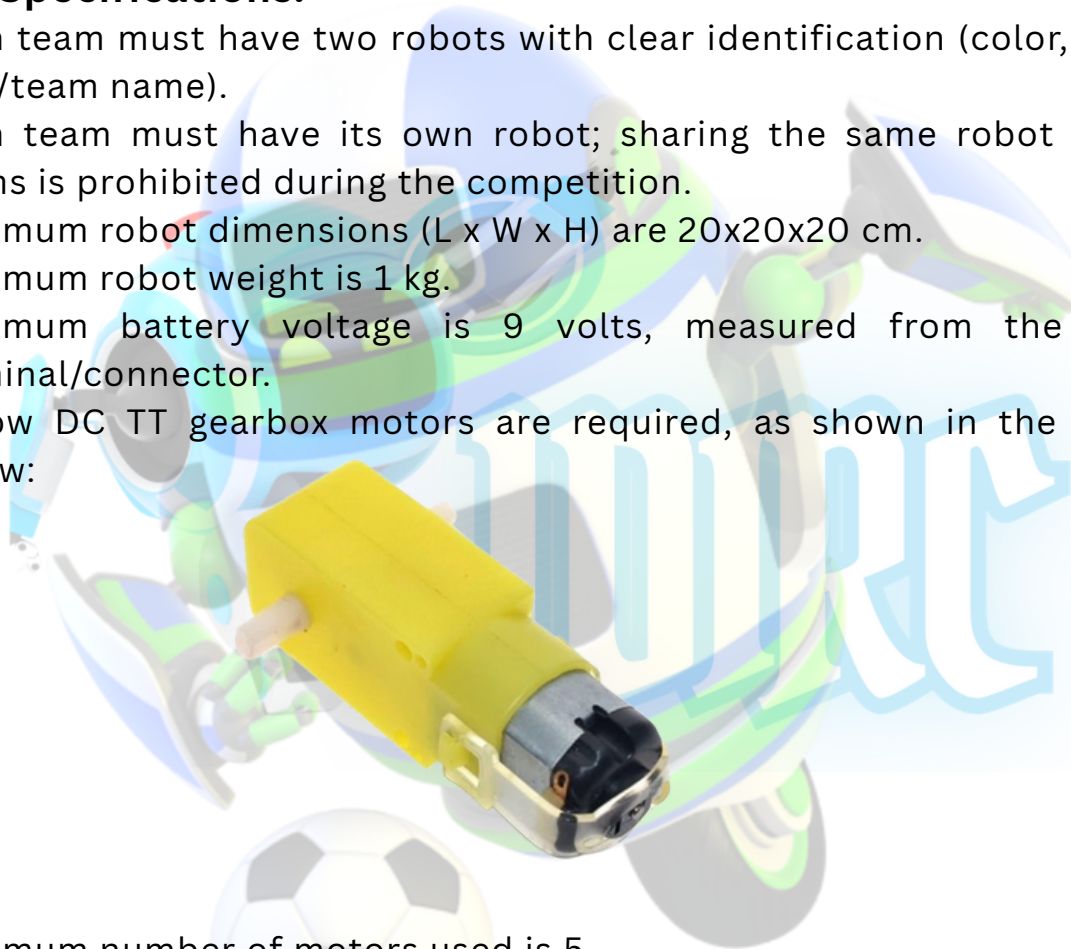


- Maximum number of motors used is 3.
- Balls are allowed to enter the robot body up to 50% of the ball's diameter.
- Robots may not enclose or hold balls with grippers.
- The front of the robot must not be shaped like a sumo robot that can lift other robots.
- Robots are prohibited from using hazardous or sharp materials.

## ROBOT SOCCER RC SENIOR

### Robot Specifications.

- Each team must have two robots with clear identification (color, number, logo/team name).
- Each team must have its own robot; sharing the same robot between teams is prohibited during the competition.
- Maximum robot dimensions (L x W x H) are 20x20x20 cm.
- Maximum robot weight is 1 kg.
- Maximum battery voltage is 9 volts, measured from the battery terminal/connector.
- Yellow DC TT gearbox motors are required, as shown in the example below:



- Maximum number of motors used is 5.
- Balls are allowed to enter the robot body up to 50% of the ball's diameter.
- Robots may not enclose or hold balls with grippers.
- The front of the robot must not be shaped like a sumo robot that can lift other robots.
- Robots are prohibited from using hazardous or sharp materials.

## BALL

The ball used is an orange table tennis ball.



## MATCH SYSTEM.

- 1.The match will be played in two halves (each half lasting 3 minutes).
- 2.The kick-off will be conducted with the ball at the center of the field and the robot outside the goal line.
- 3.If the ball is locked during a fight, the referee will count 5 and stop the match. The match will begin at the kick-off position.
- 4.While defending, the robot is not allowed to remain behind the goal line without carrying/holding the ball for more than 5 counts.
- 5.The winner will be determined by the highest number of goals scored.
- 6.Points scored: a win = 3 points, a draw = 1 point, and a loss = 0 points.

## RETRY AND ROBOT REPAIR.

- 1.If a robot experiences problems during the match, team members may request a retry from the referee.
- 2.Participants are free to make repairs to their problematic robots.
- 3.Repairs must be carried out off the field, and the match will continue.
- 4.Once repairs have been completed, robots may only enter the field when the ball is dead, and permission from the referee is required.

## DISQUALIFICATION

Teams will be disqualified if:

- Participants touch the robots
- Robots do not have the allowed specification



## FIELD

- **KIND OF FIELD**

There is only one kind of field for all sub-leagues.

- **DIMENSIONS OF THE FIELD**

The playing-field is 122 cm by 244 cm

