

FOR **ROBOVANZA 7.0**

THE MANUAL TO MASTER YOUR METAL





1.Game:

Build two soccer-playing robots, one as a Striker and the other as a Goal-keeper. The robot ball-handling skills are in addition to the controller's skill and precision will be tested. Each round has different judging criteria (overall points, number of goals scored) for getting through the next round.

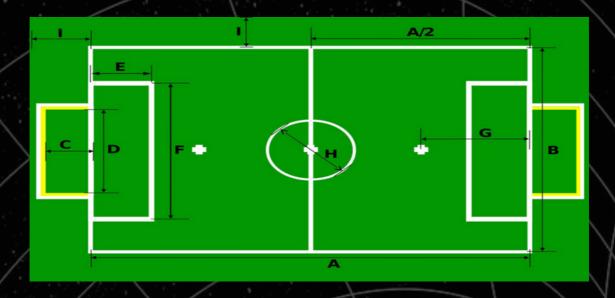
2. Robot Specifications:

- 1. Dimensions of the robot should not exceed by 30cmx30cmx30cm (1*b*h).
- 2. Weight of the robot should not exceed 5kg.
- 3.If batteries are on the bot, then they will be considered for the weight.
- 4. If the batteries are not on the bot, then they will not be considered for weight.
- 5. Max Voltage in the circuit should not exceed 12V DC at any time.
- 6. Tolerance of 5% on dimensions and power supply will be allowed.
- 7. Robots can be wired, wireless, or autonomous. (specifications.
- 8. The baskets should not be disgned to grab the ball.
- 9. Moving or rotating parts are not allowed to be used to hit the ball



3. Arena specification:

- 1. The arena dimensions of the field are 4m x 2.5m with a center circle diameter of 50cm and the goal post half circle radius is 75cm.
- 2. There could be a 10% change in the measurements in the arena.
- 3. The figures below show the dimensions of the field, the goals and special field areas, measured in millimeters between the line centers
- 4. The defending bots cannot cross the point marked on the arena



4. Team instructions:

- 1. Minimum of 2 members, maximum 4
- 2. Members of different institutions can form a team.
- 3.A team is allowed to play with only one robot in Round 1.

5.Communication Flags:

The communication flags are used to avoid gesturing and yelling with the referee during a match. These flags are responsible for communicating various intents, such as time-outs, emergency stops and challenges. The referee has to acknowledge the communication flag. Any gesturing and yelling will be considered unsporting behaviour and punished by a red card after the first warning

6.Competition Structure:

Referee: Each match is controlled by the referee. He has full authority to enforce the rules of the match to which he has been ap-pointed. The referee is encouraged to use the designated walking area next to the field. The decisions of the referee regarding facts connected with play are final.

The decision made by the referee is deemed to be final.

7.Choosing Team Colours:

The referee asks the captain of the teams about their preferred team colour (either blue or yellow). The sticker of the same colour will be given to teams to put on their bots The referee asks the captain of the teams about their preferred team colour (either blue or yellow). The sticker of the same colour will be given to teams to put on their bots.

8.Game stages:

Round 1:

Game stage	Duration
Full Time	Depends on the balls

Round 2:

Game stage	Duration
First half	90 seconds
second half	90 seconds

9. Time outs:

Each team has a total of 90 seconds Timeouts may only be taken during a game stoppage. The time is monitored and recorded by the referee.

10. Stopping the game:

Stop: When the stop command is issued, all robots have to slow down (less than 1.5m/s) or stop the bot. Additionally, all robots have to keep at least 0.5 meters distance to the ball and are not allowed to manipulate the ball. The stop command is used to pause the match after the ball crossed the field lines (including goals) or an offense occurred as well as to prepare the start or resumption of the game after halt and timeouts. There is a grace period of 2 seconds for the bots to stop

11.Gameplay:

- 1. Robots must be constructed in a way that they do not enter the goal post.
- 2. This rule applies to all robots on the field.
- 3. Any robot that moves into the goal post 3 times during a period of 20 seconds is deemed to be Foul.

12.Game Zone:

There will be two rounds.

A.Round 1:

1. For the upcoming round 1 of our competition, each team will be allocated a specific number of balls. The objective is simple: the team that successfully places all of their allocated balls first will be declared the winner of round 1.

B.Tie Breaker

- 1. A white ball will be placed in the middle of the arena.
- 2. Your bots will engage in a fierce battle to score points using their wit, speed, and strategic prowess.
- 3. The bot who puts the white ball inside the opponent's goal post wins

The participants for Round 2 will be selected if the participant manages to clear round 1

C.Round 2:

- 1.In this Round, opponents will be selected based on a lucky draw/winner of round 1
- 2. Each team should bring two robots; one plays the role of goal-keeper and another as a striker. (2 Vs 2).
- 3. Robots will be placed at the required position by the coordinators.
- 4. The robots have to score the goal in the opposite as it is done in Soccer.

D.Tie Breaker

- 1. A white ball will be placed in the middle of the arena.
- 2. Your bots will engage in a fierce battle to score points using their wit, speed, and strategic prowess.
- 3. The bot who puts the white ball inside the opponent's goal post wins

13. Sanctions:

Red Card: Red cards are given by the referee to punish severe fouls or unsporting behaviour; a bot must be taken out. After 60 seconds of playing time, the red card expires and the number of allowed bots is increased by one. The team may put a bot back in during the next opportunity.

When a team gets 2 red cards their bot will be taken out for the rest of the match

14. Disqualifications:

- 1. Unjustly grabbing the ball by any means may lead to disqualification.
- 2. The ball should be in a moving position and cannot be locked by the robot.
- 3. Any kind of damage to the arena will not be entertained, and if done, the robots will be immediately disqualified.
- 4.Lending or making the robot and participating in the same event with the different team will not be entertained.
- 5. Human interference (e.g, touching the robot, stepping into the arena) during the game will not be allowed.
- 6.If a participant does not comply with the rules of the event, the robot will be disqualified from the event.
- 7. Usage of potentiometer leads to disqualification from the competition
- 8. Entering the goal post and blocking it can lead to severe consequences

15.Competition Rules:

- 1. The goalkeeper should be within the area of their respective teams.
- 2.If a technical glitch occurs, servicing time of 1 minute will be given to each team.
- 3. Robots cannot enter the goal post, in-case penalty will be charged.
- 4. Teams are not permitted to change the parts of their robots during a run or between rounds.
- 5. Chassis, tires and motors cannot be reused
- 6. Same bots can be used in different events
- 7. Same bot cannot be reused by a different team in the event
- 8. Please be reminded that any instance of foul play during the competition will result in a deduction of one point from the respective team's score. Fair play and sportsmanship are of utmost importance in ensuring a positive and enjoyable experience for all participants.

16.Others:

- 1. All participants will be given Certificate of Participation.
- 2. Winners and runners will be given Certificate of Merit.
- 3. Member participated from a team cannot participate in another team for the same event
- 4. It's our sincere request to all the participants to go through this rule book thoroughly and not a single point mentioned in this rule book will be compromised under any circumstances. We also request you to have a copy of this book handy during the event.

17.PRIZE MONEY:

10,000

18. Event coordinators:

Saranya - 9849138777 Ujwal – 8977018599 Rashmitha - 7288096772

THANK YOU