



ROBO CARNIVAL 2019

SOCCER BOT CHALLENGE

RULEBOOK



discovering new degrees of freedom

BUET ROBOTICS SOCIETY

First glance

- A match will held between two teams
- Each team may bring more than one bot but in a single match they can use only one
- Match time will be 4 minutes with extra 1 minute break time. Team can only touch the bot during break time
- Opponent team will be selected by lottery
- Team must follow all the rules and regulations of the rulebook

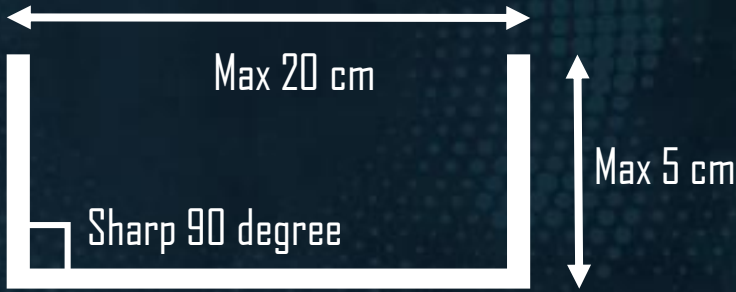

TEAM

- Each team will consist of maximum 4 members
- Team members must be undergraduate students
- Maximum two members can enter the certain arena during gameplay
- Team members from different universities are not allowed

Bot Specifications

- Bot may be wireless manual or semi-autonomous
- Bot must have an on-board power supply not more than 24 volts. No wired or external power supply is allowed.
- Max Length : 25 cm , Max Width : 25 cm , Max Height 25 cm
- Weight must not exceed to 2 KG
- Bracket Can be used but it must be open type bracket and must not enclose the ball
- Max Bracket Length : 20cm , Max Bracket Width : 5 cm
- Using any kind of weapon is not allowed

Bracket Shape

 <p>Max 20 cm</p> <p>Max 5 cm</p> <p>Sharp 90 degree</p>	Okay
	Not Okay

Communication Method

- Bot may use radio frequency , WiFi or Bluetooth module
- Using any kind of jamming device is strictly prohibited
- Joystick , wireless gamepad , Mobile or any kind of wireless device is allowed to control the bot manually

Ball Specification

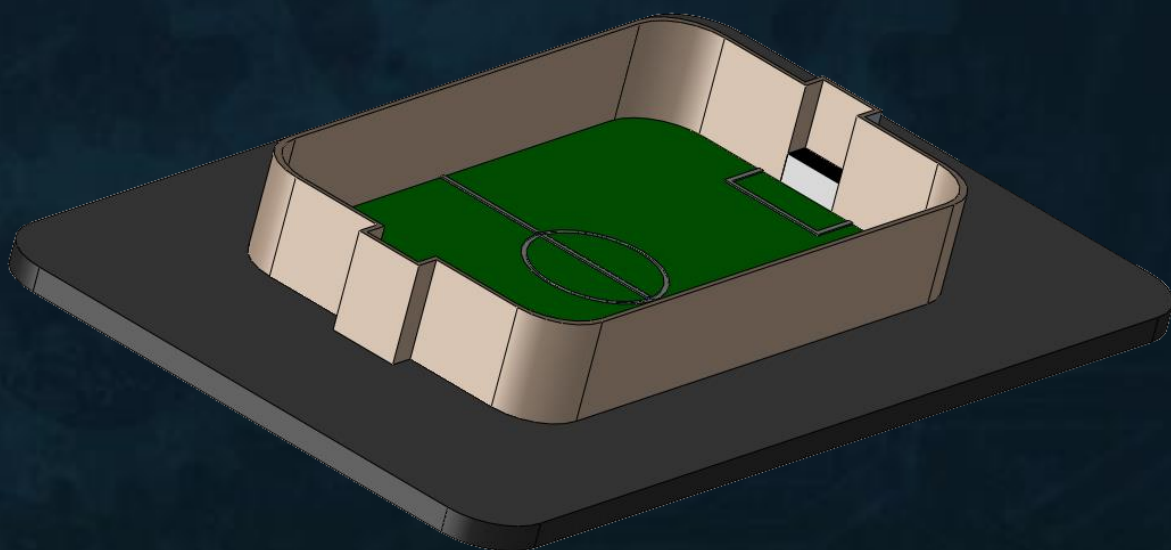
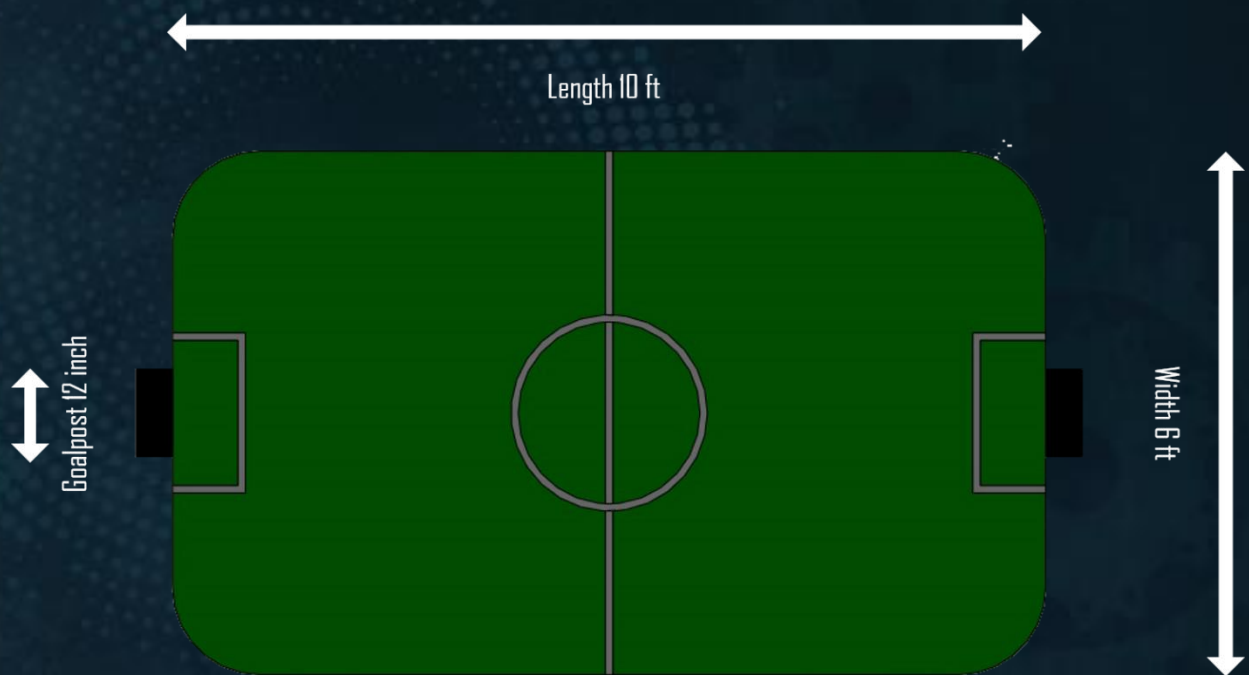
- Round Shape
- Weight not more than 200 grams
- Max diameter 3 inch



ARENA

- Arena Length : 10 Feet, Width : 6 Feet
- Goal bar Length : 5 inch , Width : 12 inch , Height : 6 inch





GAMEPLAY

- Fighting will be counted as penalties while ball is not there
- Any kind of damaging arena will disqualified a team
- A team can't touch the bot during gameplay without taking restart
- A team can take max 5 restart in a single game. Can't change or modify code during a gameplay even if it takes restart



Demo Scoring

$$\text{Score} = (\text{Number of goals} * 500) - (\text{Number of Penalties} * 150) - (\text{Number of restarts} * 150)$$

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.

Thank You