Soccer Bot

About

The world is already moving quickly, but technological and informational innovation has made it even more so. Accepting diverse skill sets and abilities is crucial for ensuring adaptability and transformation that will increase efficiency over time. Thus, by showcasing some of your creative robotic talents, the National Innovation Competition-2023- Technocrats V. 1 gives you the chance to reveal some of your hidden talents. This event is a platform for participants to showcase their robotics Talents and also to bring alive the football spirit. They are required to build two manually controlled bots capable of playing soccer in an arena specially designed for the robotics soccer match.

Eligibility

1. Participants must be **University** (Undergraduate Level, Bachelor's, Honor's, Degree) students. Participants must have a current studentship status which could be verified by an institutional ID card.
2. Each team shall be within 1-4 members.
3. Students from different educational institutions can form a team.

Registration Fee: 2,000/-

Registration Link: rebrand.ly/TechnocratsV1_23

(Please select your following segment during registration)

Bot Specification

- Maximum dimension limit of bot is 25cm×25cm×25cm (L×W×H).

- The motors to be used for the bot's motion is within the range of 0-600 rpm. It will be checked in different conditions.

- Maximum weight can be **3 kg**.

- The robot must be controlled wirelessly. Any kind of wired controller is forbidden.

- The robot must have an onboard power supply, wired ac/dc adapters are not allowed.

- Voltage must not exceed **24 volts of** rechargeable or nonchargeable batteries.

- The robot must not have more than a single switch.

- Garbing mechanisms are not allowed. It has to control the ball only by pushing with its body.

- The ball has to remain outside the perimeter of a robot's body all the time. It cannot cover the ball with part of its body.

- Only mechanical force has to be used. Any type using fire, water, or chemicals is forbidden.

- The wireless controller should have its own power supply.

Arena Specification

- Size of the area is 10 feet in length and 6 feet in width. It is almost like a football field.

- There will be two goalposts.

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- Goalposts will be of **18-inch in** length and **6 in height**.

- The arena will be surrounded by walls of **5-inch** height

Rules

- Each team must have a maximum of four members.

- Teams will have to submit their bots an hour before starting the event.

- Readymade logo kit and IC engine are not allowed.

- Readymade gear assemblies can be used.

- Bots will not be allowed which are found unsafe for other teams or the arena.

- The ball will be dragged, pushed, or kicked by the bot.

Gameplay

- Teams will have to play a football match against another team.

- 3 minutes will be provided for each team for pregame setup and testing.

- The match will be of 8 minutes (two halves of 3 minutes and 2 minutes for maintenance.)

- The game will be started on the count of three by the referee. Teams making mistakes during the start more than twice will be punished by -2 points.

- Bot will be placed at the start zone of the arena at the start of the match.

- In case of a jam-up of bots for more than 15 seconds, the ball will be kicked off against the command of the referee.

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- In case of bot problems during the match (only motor problem, connection loose), a maximum of 5 minutes will be given for repair with -1 point for every 10 seconds.

- For each goal +10 points are awarded in the first 3 minutes of each half.

- In the powerplay of 1 minute of each half, +15 points are awarded for each goal.

- During powerplay defenders will be removed from both sides.

- Teams with maximum points will be the winner.

- In case of a tie, 1.30 minutes will be played again two times. After even the goal is not scored, then 3 each penalty shorts will be given to each team.

- For each goal on its own goal post will deduct 5 points from the respective team.

- Could not hit the opponent intentionally. Hitting a bot without a tackle will be considered a foul. Each foul will be deducted 2 points.

- Grabbing the ball is strictly prohibited.

- Any pillowy parts could not be used with the bot.

- Free kick will be done after every restart.

- Any type of intentional damage caused to the opponent team's bot will be considered a foul.

- If the bot hits, the defender of the opposing team considers it a foul.

- If a team member touches the bot during a match, it will be considered a foul.

- In case of a foul a free kick will be given to the other team from a fixed arc 'y' point during which both of the teams committing the foul will be frozen at freeze point.

- Decision of the referee will be final.

Disqualification

- If a team fails to adhere to the size of the bot as specified.

- If a team damages the arena in any way.

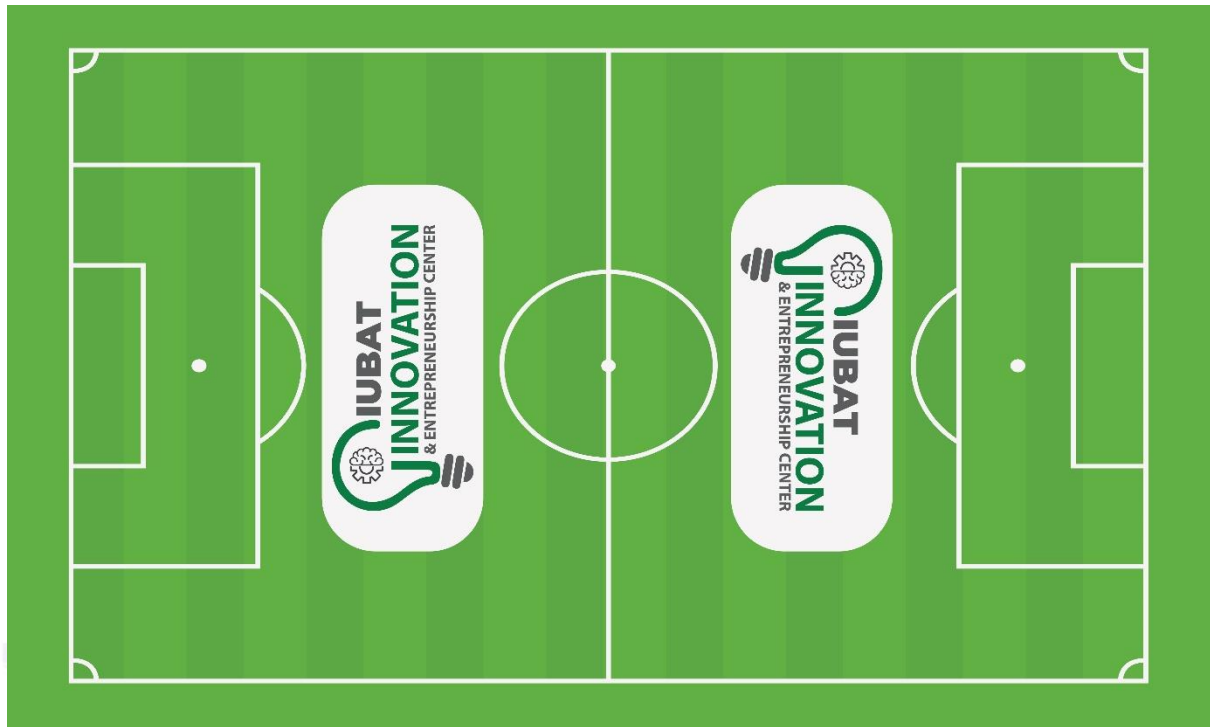- If a team commits repeated fouls more than five times.

Awards

- Champion will be given a price money of **30k** along with crest and certificates.
- Runner-Up will be given a price money of **20k** along with crest and certificates.
- 2nd Runner-Up will be given a price money of **10k** along with crest and certificates.

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Sample Arena

NOTE – The team Coordinator reserves the right to change the rules at any point in time. The change will however be highlighted on the website.

For Any Queries:

Contact/Organizers Details

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