

ROBO SUMO

INSTITUTE LEVEL

DATE: 29 April 2019

Venue: Nescafe

Prize: 1st prize Rs 8000

2nd prize Rs 6000

Organizing Team: Team Ojas

Description: Two robots compete in a head-to-head match following the basic system of traditional human sumo matches. The theme is a pushing match along with hammer for hitting the opposite sumo which stops the other sumo for a short while of time. One who has strength and the mind to out play the other will emerge victorious.

Rules: 1. Team can consist of one or more contestants but only one member will be allowed to control the robot sumo.

2. Arena ring will be in circular shape.
3. One match shall consist of 3 rounds, each round will have 3 minutes.
4. The team who wins two rounds shall win the match. When the match is not won within the time limit, an extended round may be fought.
5. A round will be won when the sumo is pushed out of the arena or the opponent sumo leaves the arena by itself.
6. When both the sumos leave the arena at the same time then the point is not considered.
7. Magnets and sticky substances that hinder the movement of opponent are not allowed.
8. Any flaming devices are not allowed.
9. No augmented autonomous controls are not allowed on the robot. All robot motion must be directly due to the teleoperation of the operator.
10. Voltage across the sumo should not be more than 24V.
11. Sumo hammer should not damage the structure of the opponent's sumo.
12. Devices that throw the things at your opponent are not allowed.
13. Edges of the sumo should not be sharp enough to damage the ring or the opponent's sumo.
14. IC engines are not allowed.
15. Judges decision will be final. Violation of the above rules will lead to losing of the match.

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GAME OF VOLTS

Departmental event

DATE: 31 April 2019

Venue: lecture hall

Prize: 1st prize Rs 3000

2nd prize Rs 2000

3rd prize Rs 1000

Organizing Team: Team Ojas

Description: Let the sparks make some noise. The event is full of creativity and exposure. As we all know transformer is the backbone of electrical engineering world. So we need to get our hands on transformer construction. In this, individual teams will have to make a transformer (with materials provided) of required voltage level on the spot. So this event is going to give you a chance to prove your technical skills in electrical engineering.

QUALIFIER:-

- There will be several objective questions to test the basic electrical knowledge of the participant.
- Participants have to come in a team of two or three members

Final Task:-

- Teams are provided with 9V AC supply. They have to construct a transformer with the material provided to convert the given supply in 15V AC supply. Points will be awarded on the basis of efficiency of transformer and time taken to complete the task.

Rules:

- Participants will be selected on the basis of objective test based on general electrical concepts.
- Participants can form team of two or three members.
- A team has to obtain qualifying marks for the next rounds.
- All teams must have the knowledge of construction and working of a transformer.
- All the necessary components and equipments will be provided on the spot.

- All teams have to complete previous stage before going to next stage.
- At the end of first stage, teams will be awarded with points on the basis of their performance.
- Teams have to complete their task in given time.
- Winner will be decided on the basis of overall points obtained by the team.
- Use of mobile during the competition is prohibited.

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ELECTRICAL HUNT

Departmental event

DATE: 29 April 2019

Venue: Nescafe

Prize: 1st prize Rs 3000

2nd prize Rs 2000

3rd prize Rs 1000

Organizing Team: Team Ojas

Description: This event has the two rounds:

1. Treasure hunt
2. Circuit debugging.

Each round has its own characteristic and technical knowledge related to stream.

Rules:

1. Treasure hunt

Hints will be provided for collecting components required for the next round. The components could be available throughout the whole campus. The participants with the maximum no of components within minimum time, will be selected for next round. It is a pre nimbus event.

2. Circuit debugging

The participants are expected to form the required circuit (which will be informed on the spot by the Team), obtained from the 1st round. The participants with the minimum time and the maximum accuracy will successfully make it to the final round.

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MINI GOLF

DATE: 30 April 2019

Venue: Nescafe

Prize: 1st prize Rs 6000

2nd prize Rs 4000

3rd prize Rs 2000

Organizing Team: Team Ojas

Description: It is an event to involve the participants in a fun filled atmosphere with a challenging strategy. The participants are required to bring their bots designed for the arena. In the path, just like in golf there will be 1 Sand pit, 1 Water pit and some trees, the participant is required to put the ball in the pit safely.

Rules:

- Participants have to come with their prepared bots of standard dimension.
- Participants are not allowed temper the robots.
- There will be two individuals playing against each other at the same time.
- If an individual happens to throw the ball in other's boundary, then as a penalty that ball will be given to another team!

No participants are allowed to enter the arena and touch the balls.

POINTS DISTRIBUTION:

1. When you will strike the ball to its specified location, you will be given 10 points, if you put the ball in the center golf hole you get double points (20 points)
2. If your golf ball touches the wall of the arena or boundary made within, 10 seconds will be added to your time record.
3. If you once put the ball in your own golf hole, you won't get it (the ball) back.
4. If the golf ball crosses the boundary you will be awarded negative points for that.

5. If both the teams have put the same number of golf balls then it will be purely judged over the time taken by any team!

6. Winner will be the team having maximum number of golf balls in their respective golf holes.

DISQUALIFICATIONS AND PENALTIES:

- A robot will be penalized if

- 1.Any member of the team touches it.

- 2.Any participant not present at the allotted time will be disqualified by default.

- 3.Any participant not ready to accept the allotted coordinate will be disqualified.

- You have to move the ball by giving a strike! Dragging and pushing the ball will be marked as a penalty.

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QUIZZIE

DATE: 12 March 2019

Venue: online

Prize: 1st prize Rs 3000

2nd prize Rs 2000

Organizing Team: Team Ojas

Description: it is an online event organized on NIMBUS 2K19 app. It will be organized for 2 days, everyday there will be a set of 10 questions.

Rules:

- Every correct answer will have +3 marking.
- There will be negative marking -1 for incorrect answer.
- There will be time bound also, quickest answer will be considered for correct answer.

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