

# ROBOTICS EVENTS

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## *EVENT – SUB EVENT: DIAMOND RUSH*

- **EVENT NAME** – Diamond Rush
- **EVENT DESCRIPTION** –

### **TRACK DESCRIPTION:**

1. There will be a symmetric track on each half of the square consisting of maze and other hurdles.
2. There will be two diamonds at the centre of the field.
3. The picture of field shown is just to provide you a brief view, however the original field may have some changes but the final task for the engineers is same.

### **Dimensions and Weight:**

- The robot should not be more than 30cm\*30cm\*30cm in size at start one then it can have extensions to grab the diamond.
- The weight of the any robot should not in any case exceed 6 kg.

### **Mobility:**

- The robot must have easily visible and controlled mobility in order to compete.
- Flying is not allowed.

### **Robot Control Requirement:**

- The robot(s) can be manual and/or autonomous.
- It can be wired or wireless.
- The bot should not damage the arena or perform dangerous tasks in any manner.
- Use of Lego kits is strictly prohibited.
- Lego kits are allowed for only gripping mechanism of the ball.

### **Batteries and Power:**

- Each team must have batteries to power their bots.

- The battery will be taken into consideration for the measurement to be made for the machine dimension and the weight.
- The only permitted batteries are ones that cannot spill or spray any of their contents when damaged or inverted.
- The maximum allowed battery voltage is 24 volts. No external power supply will be provided
- Voltage must not exceed 24 volts between any two points.

## **GENERAL RULES**

1. The team can have a maximum of 3 members.
2. Any team that is not ready at the time specified will be scratched from the competition automatically.
3. The machine will be checked for its safety before the race and will be discarded if found unsafe for other participants and spectators.
4. Would be 5 minutes round.
5. The time starts after the team gets ready with the setup and the robot.
6. Teams can present a part of their setup that is all robots/ additional components (if any) may or may not perform.
7. No part of the robot should go out of the arena during the performance.
8. Both the opponents start simultaneously from opposite side w.r.t. each other.
9. There will a track consists of square having maze and various hurdles.

## **POINT'S CALCULATION:**

10 point for each successful home run.(reach at the other side with one ball).

## **JUDGEMENT CRITERIA:**

- Judges decision shall be treated as final and binding on all.
- The organizers reserve the rights to change any or all of the above rules as they deem fit. Change in rules, if any will be highlighted on the website and notified to the registered participants.
- The winner is decided on the basis of MAXIMUM points and MINIMUM time.