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Drone Zone

INTRODUCTION

This competition tests the ability of participants to make a DIY Drone (Quad Copter) and make it stable as well as some autonomous tasks. In this competition, participants will require to go through the basics of a drone and comprehend its dynamics, and apply it to real-world situations.

PROBLEM STATEMENT

This tournament will consist of two rounds. There will be an online phase in which participants must submit a report, followed by an offline round in which they must execute a task. Competitors must choose appropriate components, provide a complete report, and build the drone using the same for subsequent rounds.

PRIZE MONEY

1st Prize: Rs. 45000

2nd Prize: Rs. 30000

ROUND 1

- Mode: Online
- Submission of the following document about the Quadcopter is to be done:
 - Detailed report outlining all of the components used for the Drone within the competition's stipulated limits.
- The above details will be collected through a google form.

ROUND 2

- Mode: Offline
- The course will not be disclosed prior to the round.
- The Quadcopter need to reach two checkpoints.
- The quadcopter would first take off, navigate through the obstacles placed in its route, and reach at Checkpoint 1.
- The timer will be paused at Checkpoint 1 and the team will be given the GPS coordinates for Checkpoint 2.
- Each team will receive two trails to complete the track.
- Quadcopter need to maintain specific height while completing the course.

CONTACT DETAILS:

Devanshu Vyas - 9157120402

Megh Modi - 6354742209

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GENERAL RULES:

- No readymade drones are allowed.
- Also FPV's with headset will not be entertained.
- Use of camera is permitted.
- No composite material frame or propeller is allowed.
- The diagonal size of the Drone should be between 350mm to 450mm.
- The Thrust to Weight Ratio should not exist beyond 2.5.
- The Quadcopter must have Hardware Safety Switch.
- There should a switch on rc transmitter to arm/disarm the Quadcopter.
- There should be some attachments to carry the payload.
- Every team should pass the technical inspection before entering Round 2.
- For Round 2, Drone will have to time 1 lap on the fixed arena.
- Two trials will be given in Round 2.
- Once the drone has taken off it should not touch the ground until it reaches the endpoint.
- Minimum 3 minutes of flight time will be required otherwise the team will be disqualified.
- Any misbehavior will lead you to disqualification from the competition.
- Decision Taken by Judges will be final and binding for all
- All decisions taken by the organizing team will be deemed final, and no more changes will be encouraged.
- Bring your college/student I-Card at the time of the competition.

TEAM SPECIFICATIONS:

- You can participate individually or with a team of a maximum of 6 members.
- Any number of candidates can participate from one college/school.
- Participants are required to bring their school/college ID cards.
- Once registered, the same candidate cannot register with another name for the event.
- Organizers have the right to reject entries for any inappropriate username of the candidate.
- Organizers must be notified if a candidate's username has been changed.

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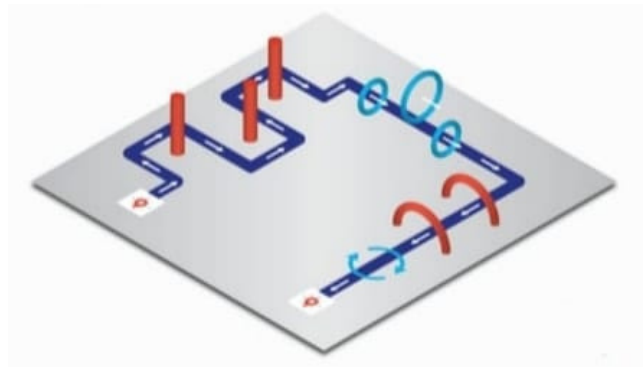


JUDGING CRITERIA

- The vehicles will be judged in the following events :
 - Lap Time.
 - Payload carrying of minimum dimension 10cm x 10cm x 10cm.
 - Minimum weight of payload should be 150g.
- Points will be awarded based on the dynamic performance of the Drone in Round 2.
Points awarded in the events will be summed up.
- Point system:
 - Percentile of maximum payload weight.
 - Percentile of minimum lap time.

TRACK DETAILS

- A similar type of track will be given in Round 2.



Registration fee: 50

Register on our official website!

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