

GOVERNMENT COLLEGE OF ENGINEERING AURANGABAD, CHHATRAPATI SAMBAJINAGAR

DRONIX

1. INTRODUCTION:

DRONIX is a technical drone competition exclusively designed for B. Tech / Engineering students with the objective of evaluating practical drone piloting skills, control accuracy, safety compliance, and real-world operational understanding. The competition focuses on engineering discipline, safety, and precision, rather than only speed.

2. ELIGIBILITY CRITERIA:

- The competition is open to B. Tech / BE students from recognized institutions.
- Team size: 1 to 5 members.
- Only one participant is allowed to operate the drone during the flight.
- Inter-college mixed teams are not permitted, unless explicitly allowed by the organizing committee.

3. DRONE SPECIFICATIONS:

- To ensure fairness and safety, all participating drones must comply with the following specifications:
- Drone type: Quadcopter only
- Maximum take-off weight (including battery): 1.5 kg
- Maximum frame size: 30 cm × 30 cm
- Battery type: Li-Po / Li-Ion

4. ARENA SPECIFICATIONS:

- Arena dimensions: 20 m × 20 m
- Maximum permissible flying height: 10 meters
- Arena type: Indoor / Outdoor (subject to weather conditions)

5. COMPETITION STRUCTURE & ROUND

The competition will be conducted in three rounds, with progressive difficulty.

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ROUND 1: QUALIFIER ROUND

Objective: To assess basic flight control and safety awareness.

ROUND 2: MAIN ROUND

Objective: To evaluate complete piloting skills and obstacle management.

ROUND 3: FINAL ROUND

Objective: To determine the most skilled and disciplined drone pilot/team.

6. SCORING SYSTEM & PENALTY RULES:

- Touching any obstacle: +10 seconds
- Skipping an obstacle: +15 seconds
- Unsafe flying behavior: Immediate disqualification
- A maximum of 2 obstacles can be skipped

7. SAFETY REGULATIONS (MANDATORY):

- A functional kill-switch is mandatory
- Pilots must remain within the designated pilot zone
- Flying over spectators, judges, or organizers is strictly prohibited

8. GENERAL RULES & CODE OF CONDUCT:

- Only the registered pilot may operate the drone
- Teams must follow instructions given by judges and coordinators
- Any form of misconduct, argument, or misbehavior will not be tolerated
- Judges' and organizers' decisions are final and binding
- The organizing committee reserves the right to modify rules if required for safety or fairness

9. TIE BREAKER POLICY:

In case of a tie, the following criteria will be considered in order:

- Fewer penalty
- Higher precision landing score
- Faster completion time

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10. GROUNDS FOR DISQUALIFICATION:

- Intentional damage to arena or equipment
- Repeated safety violations
- Flying beyond permitted limits
- Disrespectful behavior toward judges or organizers

11. For any Query - Contact:

- Pooja Satav - 9359523685
- Yug Sonawane-9822201940