ROBO 3.0 RUMBLE

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INSIDE THE EVENT: RULES & PROCESS

RC FLYING

"An aerial challenge where remotely controlled flying models are maneuvered with precision, testing pilot skill, stability, and control."

OBJECTIVE:-

The objective is to provide a platform for participants to demonstrate aerial control and precision using RC flying models. The event tests stability, maneuvering skills, and understanding of aerodynamics. It enhances hand–eye coordination and real–time decision making. The competition promotes safety, innovation, and technical excellence.

GENERAL GUIDELINES:-

- Each team must consist of 3 to 5 members; solo participation is not allowed.
- All team members must belong to the same school/college/institute.
- Only one aircraft per team is permitted.
- Aircraft must be remotely controlled (manual flying only); autonomous or GPS–assisted systems are strictly prohibited.
- Standard RC transmitters are required (2.4 GHz preferred) with failsafe enabled.
- Practice flying is allowed only during assigned time slots.
- Judges' decisions will be final and binding.
- Participants must carry valid institute ID cards.
- Any damage to property or individuals will be the sole responsibility of the team.
- Registration amount is ₹400/- per team

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DIMENSION OF AEROPLANE:-

- Aircraft type: Fixed-wing RC aircraft only
- Maximum wingspan: 1.5 meters
- Maximum takeoff weight: 2 kg (including battery)
- Power source: Electric motor only (IC engines not allowed)
- Maximum battery configuration: 6S Li-Po
- Allowed models: - Only Handmade models made by Students.
- Allowed materials: Foam, balsa, and composite structures

REWARDS AND PRIZES:-

- 1st Position: 10,000 Rupees + Winning Certificate + Trophy
- First Runner Up: 6000 Rupees + Winning Certificate + Trophy
- Second Runner Up: 4000 Rupees + Winning Certificate + Trophy
- All the participants will get Participant e-Certificate

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FLYING ARENA AND SAFETY RULES:-

- Flying will take place in a designated open flying zone.
- Takeoff and landing must occur within the marked runway area.
- Safety boundary lines must be strictly followed.
- Flying over people is strictly prohibited.
- Propellers, wiring, and batteries must be secure, insulated, and undamaged.
- Organizers reserve the right to stop any flight if safety is compromised.

EVENT FORMAT/ CATEGORIES:-

The competition may include one or more of the following categories:

Basic Flying

- Smooth takeoff
- Stable straight flight
- Controlled turns
- Safe and proper landing

Precision Flying

- Figure-8 maneuver
- 180-degree sharp turn
- Loop and rolling maneuvers
- Charlie maneuver
- Target landing

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TIME CHALLENGES(if applicable):-

- Complete the assigned flight pattern within the given time limit.
- Exceeding the time limit will result in score reduction

PENALTIES:-

- Crossing safety boundaries
- Hard landing or runway overshoot
- Loss of control during flight
- Unsafe flying behavior

DISQUALIFICATIONS CONDITIONS:-

- Aircraft exceeding size or weight limits
- Use of prohibited electronics (GPS, autopilot, stabilization systems)
- Unsafe aircraft construction or operation
- Manual throwing of aircraft without permission
- Misconduct with judges or organizers

Frequently Asked Questions (FAQs)

- Can beginners participate? — Yes, the Basic Flying category is beginner-friendly.
- Are foam planes allowed? — Yes, foam, balsa, and composite aircraft are allowed.
- Can we repair after a crash? — Minor repairs may be allowed only with judges' permission.
- Can we hand-launch the aircraft? — Yes.

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