
SKY SHOOT
Aeromodeling Competition
ST
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1. Overview & Aim

Sky Shoot is an aeromodelling competition where participants design, build, and fly their own Remote Controlled (RC) planes. The main objective of the event is to fly through a marked circuit, clear hurdles, and drop a ball right inside a target circle on the ground.
The event tests aircraft design, smooth flying, control, and precision payload dropping within given time limits.

2. Team Structure & Roles

- **Team Size:** Maximum 05 members allowed per team.
- **Team Captain:** Only the captain is allowed to speak with the Referee regarding scoring or rules.
- **Pilot:** One designated team member who will fly the plane during the match.
- **Technical Knowledge:** At least one or more team members must thoroughly understand all technical aspects of their plane.
- **Team Name:** Must be unique and approved during registration; commercial brand names or offensive names are strictly not allowed.

3. Aircraft & Ball Drop Specifications

All planes must clear the technical inspection round before taking off on the field.

Feature	Requirement
Wingspan	Minimum 100 cm to Maximum 150 cm
Total Weight	Maximum 5 kg (including battery, frame, and ball payload)
Motor	Single electric motor setup only
Battery	Commercially available LiPo (Lithium-Polymer) battery packs
Radio Receiver Battery	Minimum 1000 mAh capacity if using a separate pack
Radio Control Frequency	2.4 GHz DSS only; telemetry allowed on 433 MHz / 2.4 GHz
Materials Allowed	Open choice (balsa wood, foam, carbon fiber, 3D printed parts, gearboxes, etc.)
Readymade Plane Kits	Strictly prohibited (ready-to-fly commercial kits are not allowed)
Ball Drop Mechanism	Plane must have an RC-controlled trigger mechanism to hold and release the ball on command

4. Ground & Arena Layout

- **Field Area**: Approx. 200Mtr flying zone with clearly marked takeoff, landing, and maintenance areas.
- **Hurdles & Markers:** Hurdles will be kept at specific locations, and directional arrows will mark the required flying path.
- **Drop Target:** A ground-marked circular area where the ball needs to be dropped.

5. Competition Rounds & Game Play

The tournament will be conducted in two main stages:

 # Pre-Flight Preparation

* Each team will get **3 minutes** for pre-flight checking and launching.
* Launch can be done by hand launch (using one hand inside the launch zone) or takeoff from the 5-meter launch pad stretch.

 # Round 1: Elimination Round

1. Format: One team plays at a time.

2. Task: Take off, survey the ground, drop the ball over the ground target circle, and perform a proper landing in minimum time.

3. Qualification: Top **25 teams** with the fastest completion timings and successful landings will advance to the final round.

 # Round 2: Final Championship Round (5 Minutes)

1. **Attempts**: Each qualified team gets a maximum of **2 attempts** within a 5-minute time window.

2. **Task:** Fly the circuit without skipping hurdles, line up over the target spot, drop the ball accurately in the circle, and land safely.

3. **Judging Criteria:** Points will be given for ball drop accuracy, hurdle navigation, flight stability, pilot control, and quick completion.

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6. Scoring & Points System

Final Score = Drop Precision Points + Flight Completion Points - Penalties

- **Target Ball Drop:** Maximum points for dropping the ball directly inside the inner target circle; partial points for dropping within outer boundary rings.
- **Hurdle Clearance:** Extra points for cleanly crossing all placed hurdles along the arrow path.
- **Time Bonus:** Teams finishing the entire circuit and landing in the shortest flight time get bonus points.

Penalties & Negative Points:

- Plane crashes or loss of control: **Negative points**
- Avoiding or skipping hurdles: **Point deductions**
- False start or wrong launching procedure: **Fault declared / Restart required**

7. Important Rules & Discipline

- **Referee's Decision:** The Chief Referee's decision regarding scores, timeouts, and rules is final and binding.
- **Fair Play**: Jamming signals, frequency interference, or misbehaving with officials/other teams will lead to immediate disqualification.
- **Ground Safety:** Running around in pit areas, handling other teams' equipment without permission, smoking, or substance use is strictly prohibited.
- **Technical Fitness**: Any plane deemed unsafe, unstable, or loosely assembled by judges will not be allowed to take off.

8. Prizes & Rewards

- **Awards Format:** Winning teams will receive cash prizes, official certificates, and trophies.
- **Prize Pool:** A total prize pool of ₹15,000 is allocated.
- **Winners Breakdown:**
  - 1st Place: ₹10,000
  - 2nd Place: ₹5,000

- **Certificates:** All participating teams will be issued official certificates.

9. Official Contact Details

- **Faculty Coodinator :**

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Thank You