

Aeromodelling Competition Guidelines

Senior Category

Objective:

The competition challenges participants to design, build, and operate a remote-controlled (RC) aircraft that demonstrates exceptional design, flight performance, and maneuverability.

General Norms:

- **Team Composition:** Each team can have 2-4 members (UG, PG, Diploma; No Professional Pilots Allowed).
- **Aircraft Type:** Only fixed-wing RC aircraft are allowed. No quadcopters, VTOL designs, or pre-assembled kits are permitted.
- **Flight Control:** Aircraft must be manually operated using a remote control. Autonomous or semi-autonomous planes are not allowed.
- **Minimum Distance Rule:** A **minimum 5m distance from the ground** should be maintained throughout the flight (except the obstacles).

Aircraft Design Constraints:

- **Weight :** Maximum take-off weight **1.5kg**.
- **Wingspan:** Maximum **1m**.

Competition Format:

The competition will be conducted in a **single round**. The details are as follows:

Design Check:

- The aircraft's design will be checked by judges and the event managing team to ensure adherence to design criteria and constraints, including materials used, weight of plane, wingspan, innovation in design, and other aerodynamic features.



- **Scoring:** Design evaluation will be done on a **scale of 10 points**.

Flight Performance Challenges:

- **Takeoff:** Smooth takeoff will be **evaluated on a scale of 10 points**.
- **Obstacle Navigation:**
 - The course will include **two obstacles**, details of which will be revealed on the day of the competition.
 - **Obstacle 1:** Evaluated on a **scale of 30 points**.
 - **Obstacle 2:** Evaluated on a **scale of 30 points**.
 - A **trial round** will be given before the competition starts.
- **Landing Precision:** Land the aircraft in a designated target zone with minimal deviation.
 - **Scoring:** Awarded on a **scale of 20 points**, based on precise landing within target zones.

Additional Rules:

- **Battery Replacement:** Not allowed once the competition round begins.
- **Disqualification Criteria:**
 - Failure to follow design constraints.
 - Loss of control resulting in danger.
 - Exceeding the weight or size constraints.
 - Use of pre-assembled kits.

Junior Category

Objective:

Participants will design and build a hand-launched glider (chuck glider) to achieve the longest flight distance, best flight time, and maximum precision in landing. This competition emphasizes aerodynamic design and flight stability.

General Rules:

- **Team Composition:** Each team may consist of 1–3 members.
- **Glider Type:**



- Only hand-launched, fixed-wing gliders are allowed.
- **Paper planes and pre-assembled kits are not allowed.**
- The glider must be non-motorized and rely entirely on manual launch.
- **Launch Technique:**
 - Participants must throw the glider by hand.
 - No slingshots, rubber bands, or any external launching aids are allowed.
- **Safety:**
 - Gliders must not have sharp edges or components that could cause harm.
 - Judges may disqualify any unsafe designs.

Design Constraints:

- **Size:** Maximum wingspan: **0.6m**.
- **Weight:** Maximum **500 grams**.
- **Materials:**
 - Gliders can be made from materials such as balsa wood, foam board, or lightweight plastic.
 - Use of rubber bands, pins, etc., is allowed.
 - Use of metal components is restricted to small parts for reinforcement or balancing.
- **Assembly:**
 - The glider must be built by the team.
 - Ready-made or pre-assembled gliders are not allowed.

Competition Format:

Design Check:

- The aircraft's design will be checked by judges and the event managing team to ensure adherence to design criteria and constraints, including materials used, weight of plane, wingspan, innovation in design, and other aerodynamic features.

Scoring Criteria:

- **Design Evaluation:** Based on aerodynamics and innovation, **scale of 20 points**.



- **Takeoff by Hand:** Evaluated on a **scale of 20 points**.
- **Distance Travelled:** Points will be awarded on a **scale of 30** as per the distance travelled
- **Flight Stability:** Evaluated on a **scale of 10 points**
- **Landing on Base of Glider:** Evaluated on a **scale of 20 points**.

Best of two attempts will be considered for final scoring.

Rules and Safety:

- **Inspection:**
 - All gliders will be inspected before the competition to ensure compliance with design constraints.
- **Safety Compliance:**
 - Unsafe designs or unsafe throwing techniques will result in disqualification.

Disqualification Criteria:

- Exceeding weight or size constraints.
- Use of pre-assembled or motorized gliders.
- Violation of safety rules.
- Use of external aids for launching.

Additional Notes:

- Teams are encouraged to experiment with **wing shapes, aspect ratios, and balancing techniques** to optimize performance.
- All decisions made by the judging panel are **final and binding**.

Important Notice:

- The **organizers reserve the right to modify the rules or guidelines** at any time. Any such changes will be communicated to the participants promptly.
- **Judging decisions are final**, and no appeals or queries regarding the judgment will be entertained.



- The **prize pool** is subject to the **number of participants** and at the discretion of the organizing committee.
- Teams are responsible for ensuring their submission complies with the guidelines.
- **Cliffesto'25** reserves the right to disqualify any team at any stage for non-compliance with the rules or misconduct.

Contact Details:

For any queries or clarifications, participants are encouraged to contact the **Cliffesto'25 organizing team**.

Event Head:

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