

Plane Modeling Competition

Fifth International Robo Tech Olympiad 2025

Organized by Robo Tech Valley & Uttara University

About the Competition

The **Plane Modeling Competition** is an exciting event designed for students to **design, fabricate, and demonstrate** a fixed-wing aircraft system that meets specific performance requirements. Participants will have the opportunity to showcase their aeronautical engineering skills, creativity, and problem-solving abilities.

As part of the **Fifth International Robo Tech Olympiad 2025**, organized by **Robo Tech Valley and Uttara University**, this competition challenges participants to develop a functional model aircraft capable of meeting predefined objectives. Teams will be judged on **design, efficiency, and execution**.

Eligibility

1. Participants must be **undergraduate, bachelor's, honors, diploma, or polytechnic, college or school students** with a valid institutional ID for verification.
 2. Teams can consist of **2 to 3 members**.
 3. Students from different institutions can form a team together.
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Registration Details

- **Registration Fee:** BDT 1,500/- per team
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Competition Format

- The competition will be held **outdoors** to allow for proper flight demonstrations.
 - Each team must build a model aircraft that adheres to the specifications and successfully completes the designated flight tasks.
 - **Time Limit:** Each team will have a maximum of **10 minutes** to complete their attempt.
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Design Constraints

- The aircraft must be a **fixed-wing model**.
 - **Maximum wingspan:** 1.5 meters.
 - Only **electric motors** are allowed. No IC engines or alternative thrust mechanisms.
 - The aircraft **must be handcrafted**—ready-to-fly commercial models (RTF/ARF/BNF) are not allowed.
 - No gyroscopes, autopilot systems, or pre-programmed assistance allowed.
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General Rules

- Each team gets **two attempts**, with the best attempt being considered for evaluation.

- Teams must bring **spare parts** (batteries, propellers, motors) to avoid disqualification due to technical issues.
 - The competition **strictly prohibits the use of FPV systems** and other external aids.
 - Safety measures must be followed at all times—failure to comply may result in disqualification.
 - Judges' decisions are **final and binding**.
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Scoring Criteria

Teams will be scored based on the following:

- **Design & Build Quality** (20 points)
- **Flight Performance & Stability** (30 points)
- **Payload Carrying Ability** (20 points)
- **Landing Accuracy** (20 points)
- **Overall Innovation** (10 points)

Total Score: **100 points**

Awards & Prizes

- **Champion: 15000 BDT**
- **Runner-Up: 10000 BDT**
- **2nd Runner-Up: 5000 BDT**