1. Event Overview:

This is a single-round RC fixed-wing aircraft competition designed to evaluate precision flying, control accuracy, and effective time management.

The event emphasizes accurate maneuvering and consistent aircraft performance under predefined operational constraints. Participants are challenged with real-world flight scenarios that demand sound decision-making, stable handling, and controlled execution.

Overall performance is assessed based on flying precision, operational discipline, and efficient completion of tasks within the allotted time.

2. Eligibility Criteria:

The Wingfury event is strictly limited to undergraduate-level participants to ensure a fair and competitive environment.

- The competition is open only to undergraduate students from recognized universities, institutes, or colleges.
- All participants must present **a valid college** ID card during the event.
- Each team must consist of 2 to 4 members only.
- A participant is **not allowed to participate in** more than one team in this event.

Any violation of the above eligibility rules will result in **immediate disqualification,** irrespective of the competition stage or match status.

2. Team Registration:

- Each team must register with a unique team name.
- Once registered, team composition cannot be changed under any circumstances.
- Teams must report at the event venue at least 30 minutes before their scheduled slot.
- Failure to report on time may lead to disqualification or walkover, subject to the organizer's decision.

Teams are advised to complete registration formalities carefully, as incomplete or false information may lead to cancellation of participation.

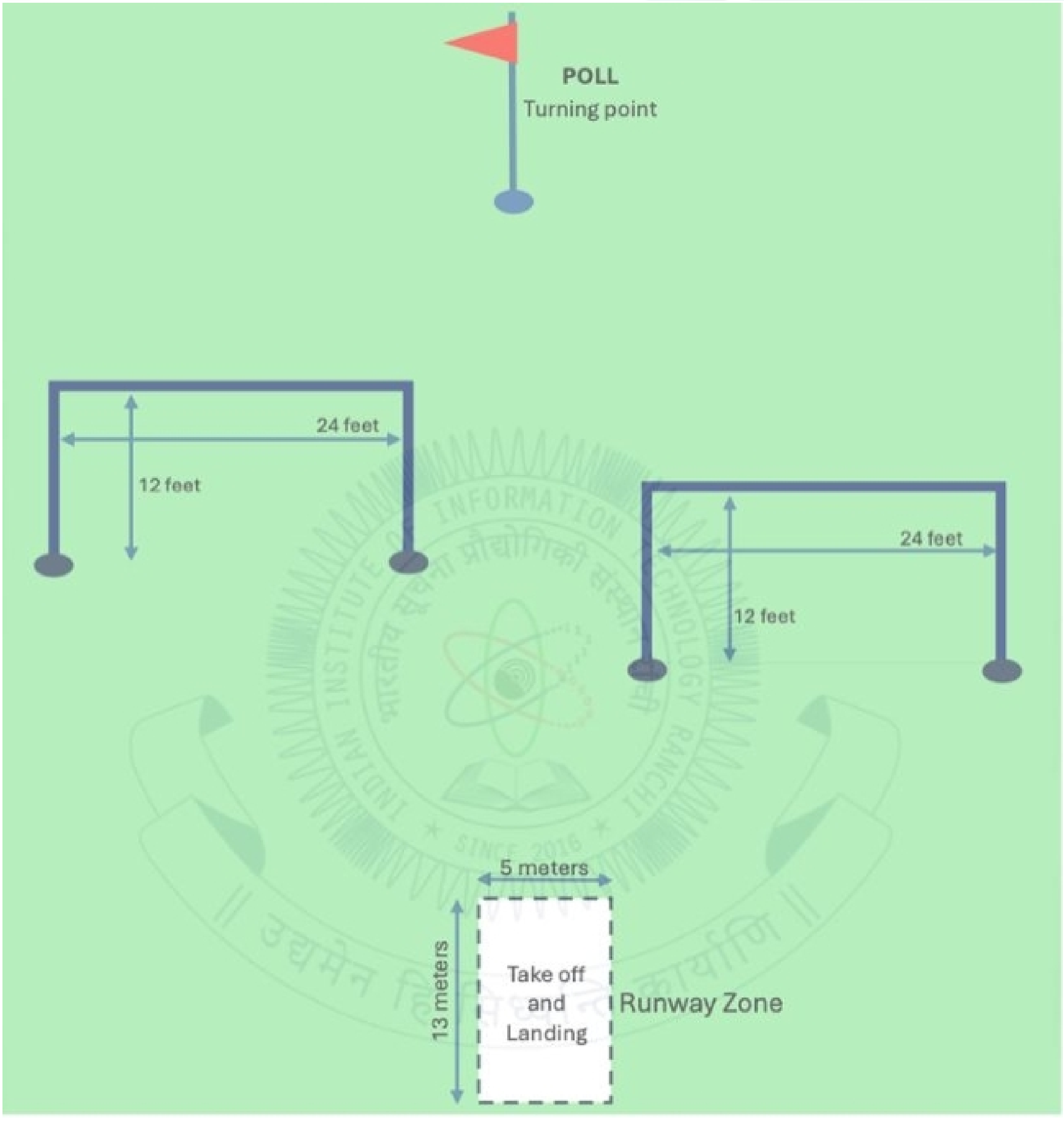
4. Problem Statement:

The team must design, build, and showcase a fixed-wing aircraft that can complete the tasks outlined with the given constraints.

Problem Statement for the Round

- Team is responsible for designing and operating a radio-controlled aircraft.
- The goal is to design an aircraft which can pass the checkpoints.
- The arena will be an open ground.
- There will be only one round in the campus competition.

5. Arena:



6. Format of the competition:

- There will be only one round in the competition.
- Changing the aircraft during the competition is not allowed. The arena will be an open ground.

- The aircraft will start from the Runway Zone, pass the checkpoints clearly and smoothly in an airborne state and then land again on the Runway Zone.

- Marking Scheme:
  -> Checkpoint 1: 50 points.
  -> Checkpoint 2: 30 points
  -> Checkpoint 3: 50 points
  -> Landing on runway zone: 20 points

- If aircraft touches the checkpoint ring or the poll then 10 points will be deducted from the team's score.

- If aircraft touches the ground after clearing the checkpoint 1 then 20 points will be deducted from the team's score.

- With every ground touch the aircraft will start from the previous checkpoint (in case of checkpoint 1 it will start from the runway zone).

- A maximum of 3 ground touches is allowed.

- A Time limit of 7 minutes will be allotted to each team (timer will not stop in any case).

- Winners will be decided by total points scored. Ties will be broken using time taken and other on-spot constraints.

- In case if aircraft broke or unable to fly then the team will be disqualified.

- Any additional rules, clarifications, or modifications not mentioned here in will be announced on the spot and shall

be binding on all participating teams.

- In all unforeseen situations or disputes, the decision of the Event. Management Committee shall be final and binding.

- The method and criteria for winner declaration shall remain confidential and will be determined solely by the judging panel.

- Max flying height is 40m.

- Remove Dot after Event.

Design Constraints for the Aircraft

- Teams must design and fabricate their own fixed-wing RC aircraft, ready-made models including RTF, ARF, and BNF are not allowed.

- 3D printed not allowed.

- The propeller diameter should not be greater than 13 inches (Metal propellers are not allowed).

- The wingspan should be a maximum of 1.4m.

- Only electric motDrs are allowed. Using IC engines or any other means of providing thrust is prohibited.

- Use of gyroscopes (gyros), flight controller and programming assistance in receivers is prohibited.

- The models can have powered take-off with landing gear or be launched manually by a person standing at ground level.
- Programming for any step of the mission is not allowed.
- Use of FPV or any other support for flying is not allowed.