

RC FLIGHT COMPETITION

Task

Design and make a fast, light, wireless remote controlled aircraft (using electric motors only), Which can manoeuvre around in a rectangular path and perform a figure of eight and land in the specified zone.

Task1 – Manoeuvre around a rectangular path (not to go beyond the ground boundary)

Task 2 – Manoeuvre with path of figure eight.

Task 3 - land within the landing zone. (Within 25 m)

The specifications of the task:

The following order of the task has to be followed:

1. Start from the launch/landing zone.
2. Execute a flight path in a rectangular shape within the boundaries of the ground.
3. Execute a flight path forming a figure of eight within the boundaries of the ground.
4. Enter the safe landing zone and land. Within 25m from the touchdown point.

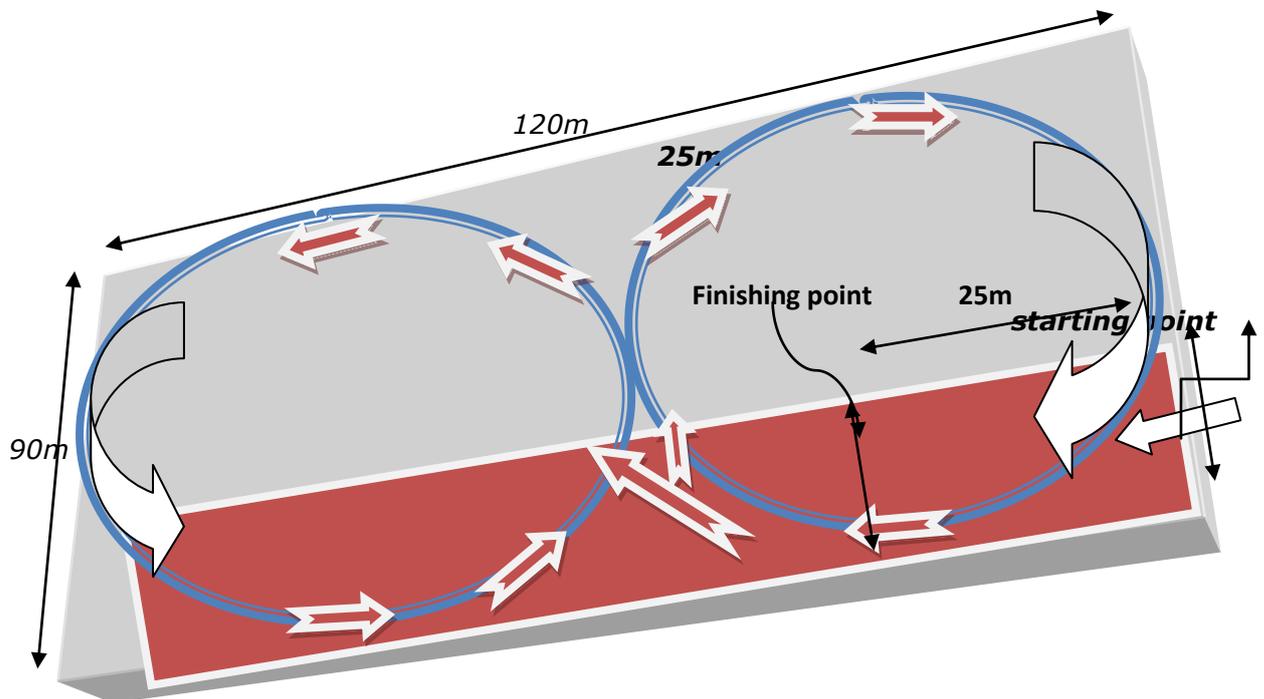


Figure 1: Path

Arena

1. An aircraft is defined as an object that has the four forces of flight, namely lift, drag, weight (Gravity) and thrust due to propeller acting on it at any point of time.



2. The aircraft is to be designed in such a way that it travels quickly in air and is easily manoeuvrable.
3. The use of launching mechanisms is prohibited. The aircraft should be hand launched.
4. The participants are free to use the materials of their choice. However the use of Balsa Wood/foam (sun board)/sun pack is advisable. Using Balsa wood being light, easy to handle and Fabricates the best choice.
5. Participants must make all parts of the aircraft themselves. However, the kit comprising of unassembled cut pieces Of Balsa wood is allowed.
6. Use of readymade actuators/motors, remote controls and propellers are allowed.
7. Any dimension of the aircraft should not exceed **1m** i.e. Maximum allowed dimension is Including, whether it is the wingspan or the length of the aircraft.
8. Any exception to this rule will render the participant disqualified.
9. Anyone found not following the above rules will be disqualified

Machine Specifications

A model aircraft made according to the rules which are controlled using Radio control

Event Rules

1. The participant will be considered for scoring only if his plane follows the mentioned path. Otherwise, his score stands at zero.
2. All parts must remain attached to the aircraft during flight and landing.
3. Broken propellers are allowed, and will not invalidate a flight attempt.

Judging Criteria

Marks

- | | |
|--|----|
| 1. Launch Phase: | 5 |
| 2. Rectangular Flight Path execution: | 10 |
| 3. in Figure of Eight flight path execution: | 20 |
| 4. Landing in 25 m. Safe landing zone: | 15 |

Provisions at Competition Site

The students would have to bring their planes and fly in the given gaming arena.

Faculty Coordinator Details

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