HOVERCRAFT

(CONTROL WITH AIR)

INTRODUCTION:-

HOVERCRAFT is an air-cushion craft which is capable of travelling over surfaces. It should produce a cushion of high pressurized air and propels itself on this air cushion using a thrust producing mechanism.

PROBLEM STATEMENT:-

Each team has to design and fabricate a lightweight and easily manoeuvrable hovercraft which must be quick and strong enough to push objects.

RULES:-

1. The overall craft dimensions must not exceed 50 cmX50cmX50cm.

2. Hovercraft can be fabricated using foam, wood, coroplast (sunpack) or any other material which do not damage the arena.

3. Control is generally achieved by the use of rudders, though it's not a only solution.

4. Participants must make all parts of craft themselves.

5. Usage of readymade kit is strictly prohibited. Use of readymade motors/actuators and remote controls is allowed.

6. Use of IC engines is prohibited. Only electrical motors are allowed.

7. In case of damage to craft small modification time will be provided.

8. A team should not have more than three students.

9. Team members should be of same institution.

10. All team members should have a valid identity card of their respective institutions.

11. COORDINATOR'S DECISION WILL BE FINAL.

12. Human interference is strictly prohibited.

GAME PLAY:-

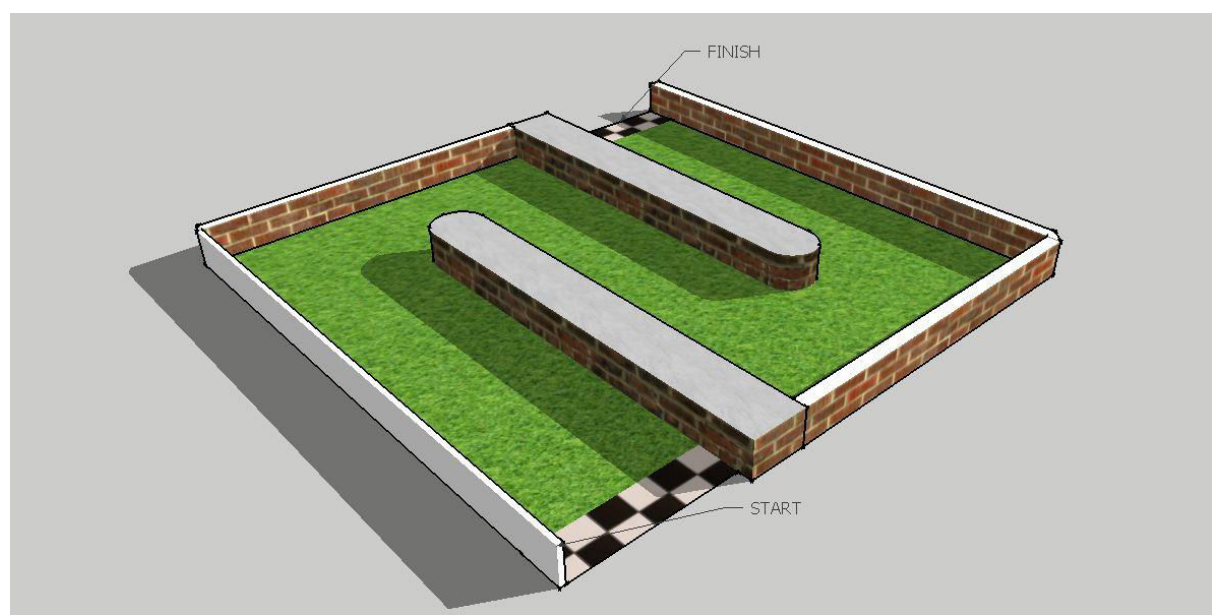The event comprises of two rounds.

Round 1:

1. Each team has to complete a given path in **minimum time**.

2. Stability of hovercraft and operator's skills will be checked.

3. Hovercraft should not touch the walls otherwise penalty of 10 seconds will be charged.

> *Top teams will be promoted to the round 2.*

Round 2:

1. In this round hovercraft have to push objects into their respective goals in minimum time.

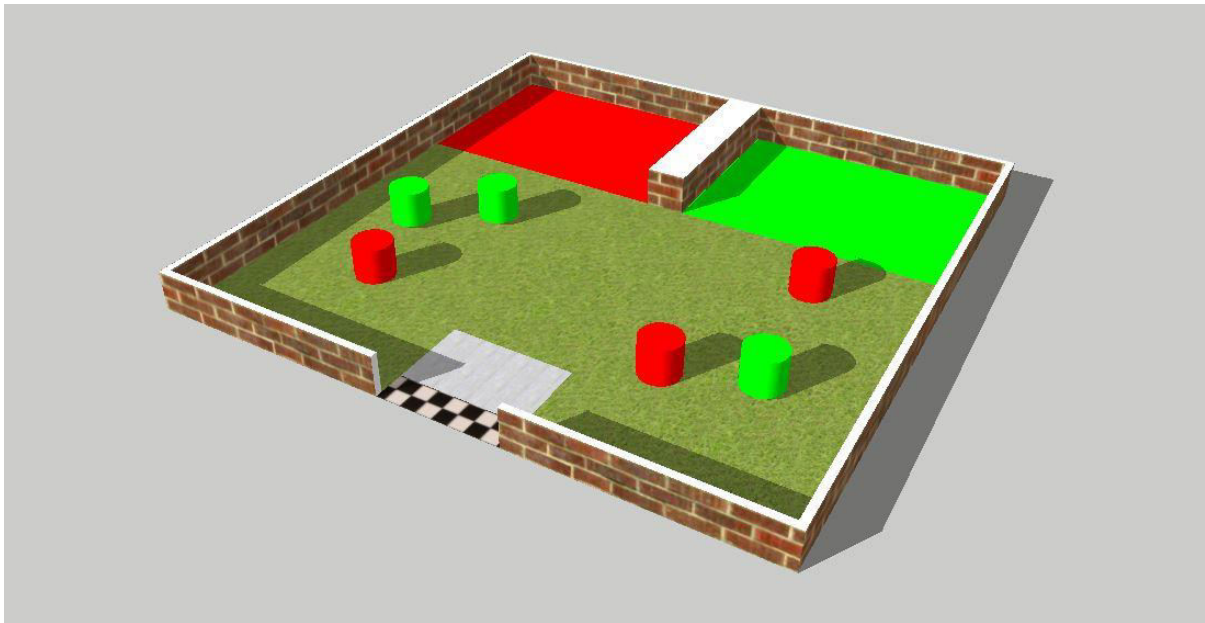2. "Maximum goals in Minimum time" will be the winning criteria.

ARENA:-

Arena for round 1

Arena for round 2