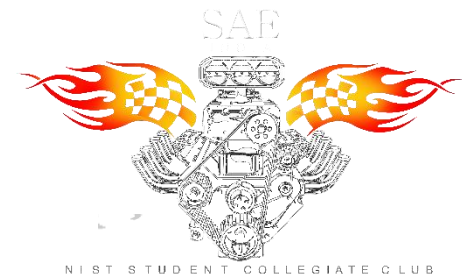


SANKALP 2K19



When Elegance meets Extraordinary



SAE
INDIA



N I S T S T U D E N T C O L L E G I A T E C L U B

AMBU YUKTI (AQUATRIX)

The competition requires participants to design to fabricate their own boats and perform a set of manoeuvring in the provided arena.

PROBLEM STATEMENT

The task is to come up with the design of a boat and fabricate it using materials like corrugated fiber sheets, glue, machine tape, other scraps, etc. After building the boat participants are required to show up with their boats near the arena where the real game will take place. The arena consists of a small water pool where team have to race the respective boats. The arena will also have several obstacles that are needed to be cleared first. The boats will always flood, shrink, shred under its own weight mostly owing to difficulties in waterproofing the cardboard.

EVENT CO-ORDINATORS

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VENUE

Back side of Atrium

DESCRIPTION OF ROUNDS

ROUND 1:

Elimination round: 2 team will compete against each other at a time, in the provided arena. The team winning the round will move to the next round. The losing team will be eliminated from the event.

ROUND 2:

Elimination round: 2 team will compete against each other at a time, in the provided arena. The team winning the round will move to the next round. The losing team will be eliminated from the event.

QUALIFIER ROUND:

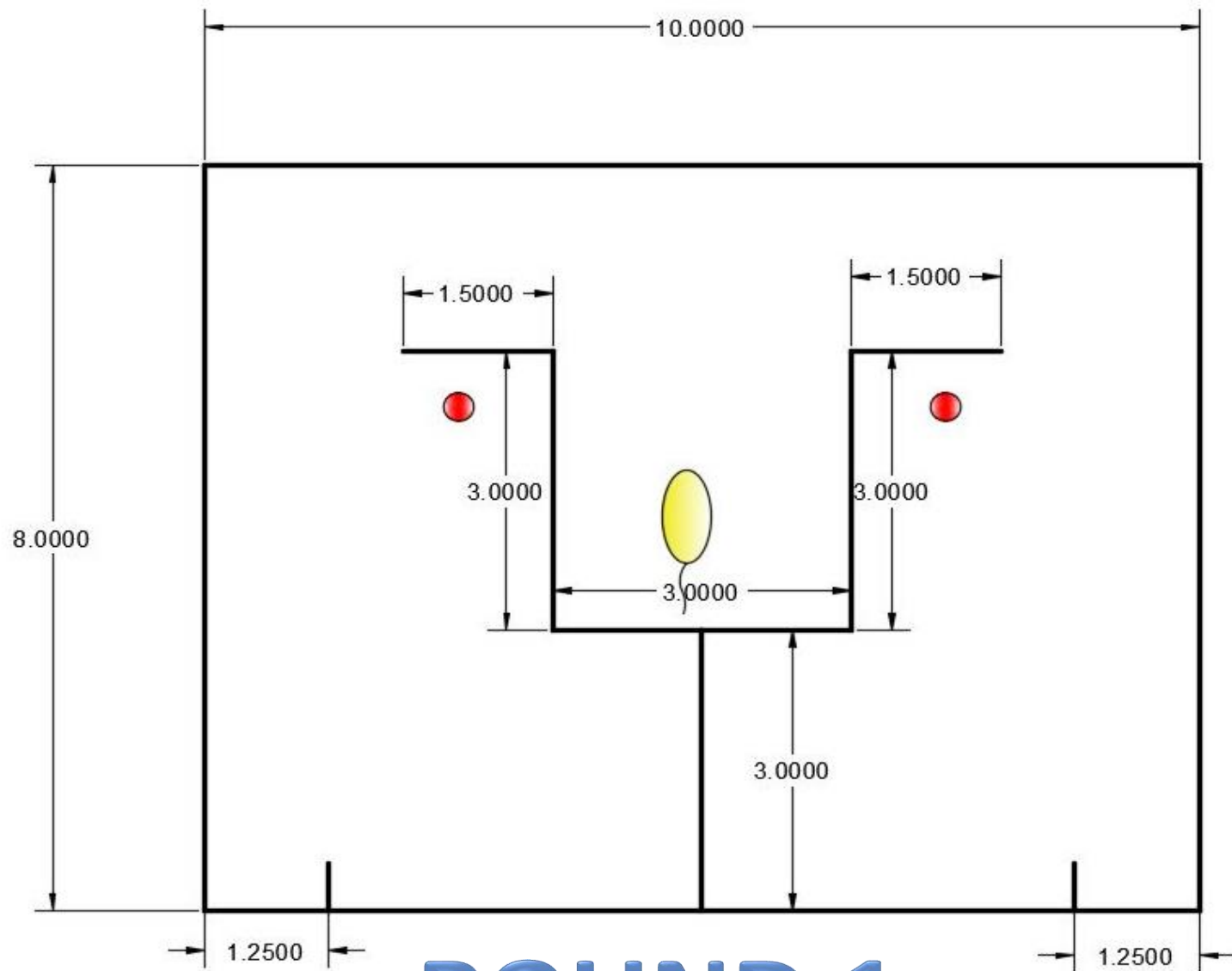
In this round, each team will race their boat to complete the given objective, individually. After all the teams has finished their tasks, the top 4 team will move on to Semi-finals. Ranking will be decided by the time taken to complete the tasks.

SEMI FINAL:

2 teams will compete against each other at a time, in the provided arena. The team winning will move to the finals.

FINALE:

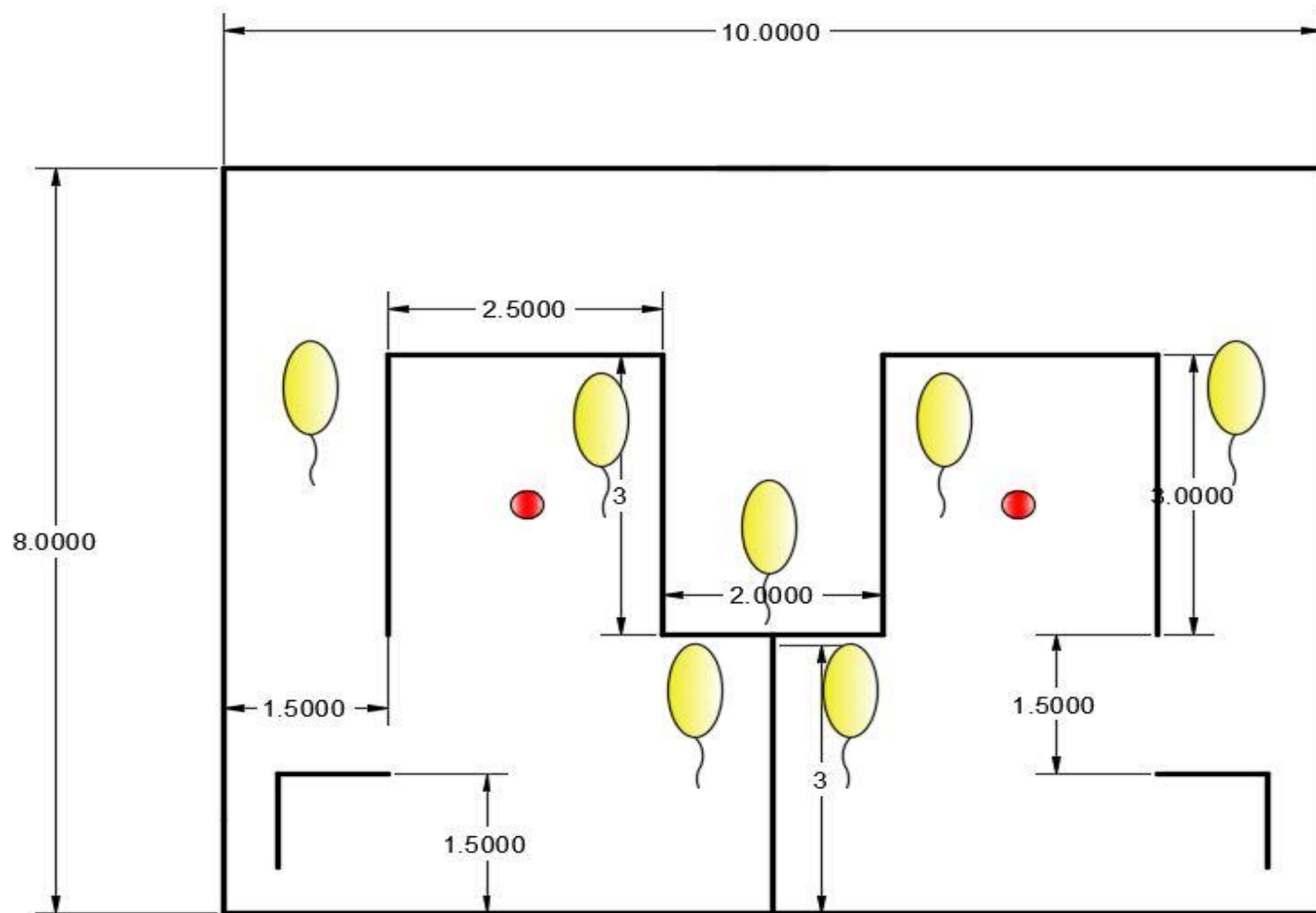
The remaining two teams will compete against each other at a time, in the provided arena. The First team to complete the task wins the mega event – **AMBU YUKTI**.



MAX. TIME LIMIT: 3 MINUTES

ROUND 1

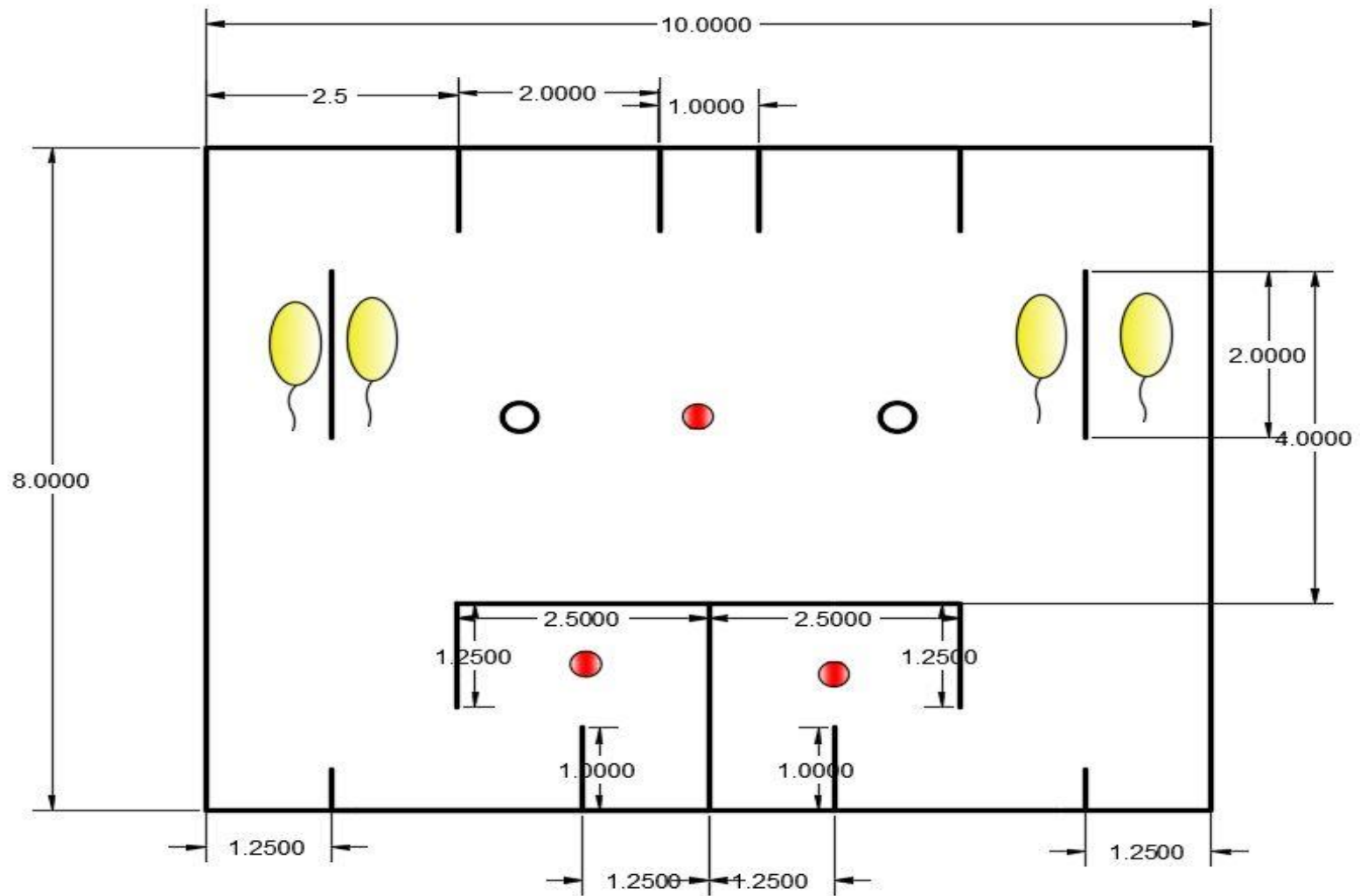
**** Event Co-ordinators holds all the rights to make changes in the max. time limit during the event.**



ROUND 2 & QUALIFIER

MAX. TIME LIMIT: 6 MINUTES

**** Event Co-ordinators holds all the rights to make changes in the max. time limit during the event.**



SEMI FINAL & FINALE

MAX. TIME LIMIT: 10 MINUTES

**** Event Co-ordinators holds all the rights to make changes in the max. time limit during the event.**

AQUATRIX RULES

Aquatrix is a Boat race event, in which students have to fabricate a remote controlled Water boat, taking consideration of the limitations stated in the rule book.

Though it looks simple, but it requires a basic engineering skill to understand the buoyancy and body weight distribution.

Limitations to develop the boat:

Dimension:

The outer dimension of the boat should not exceed **10" * 12"**.

Motor:

A maximum of **2** motors can be used in the boat, and each motor should not exceed **150RPM**.

Use of weapon to Pop the Balloon:

Any sharp pointed object, like Needle, can be used to pop the Balloon. The maximum length that can be used should not exceed **2"**, measured from the outer surface of the Boat.

Use of Adapter:

Maximum **12V, 2A**.

Shape of boat:

The competitor is free to use his imaginative and creative skill to design the boat.

Insulation:

All the wirings and motors should be **properly insulated.**

Testing of Boat:

The boat will be put in a frame of **10"×12"**. If it fits into the frame, only then you can take your boat ahead in the competition.

