Float-e-Barco

Problem Statement

Introduction

Techzion'19 presents Float-e-Barco to provide students with an opportunity to participate in a design-oriented event, Float-e-Barco is an event which will bring the intellect out of you and involves designing a boat fully driven by chemical reaction/process in which you have a chance to make a boat driven by chemical energy.

STAGES OF COMPETITION:

1. Abstract: 20% weightage

2. Performing Round: 80% weightage

1. Abstract Round:

- Principle involved (for the propulsion of the boat) and a brief description of boat design.
- Main chemical reaction (process) used.
- Chemicals used.

The abstract should contain:

• Principle involved (for the propulsion of the boat) and brief description of boat design.

• Main chemical reaction (process) used.

• Chemicals used.

Send your abstract to ideas.techzion@gmail.com in PDF format with subject of the mail: **Float-e-Barco Abstract, Techzion'19, "Team Name".**

2. Performing Round:

- INITIATING BOAT: Ten minutes will be given for the setup of the boat. Once the boat crosses the starting line, the team cannot touch their boat, i.e., no chemicals can be added after crossing the starting line.
- Pushing the boat or a mechanical starting device is not allowed.
- TRACK DETAILS: Mentioned in gameplay.

RULES

1) Load and Distance

Each boat will be given two opportunities to traverse a specified distance carrying a certain additional load. The distance will be 5-7 ft.

2) Course Layout and Distance Measurement

The boat will start with its front end just touching the designated starting line. The goal of the competition is to have your boat stop closest to the specified finish line. If the boat should stop at some point or go in a random direction, then volunteer will stop the timer and you can push the boat towards finish line direction but if you force the boat then penalty of 5sec will be given to that participant(s).

3) Boat Drive System

• The only energy source for the propulsion of the boat is a chemical reaction.

• The chemical reaction should not be harmful to environment.

• Chemicals used should not be corrosive and should be easy in handling and logistically safe.

4) Boat Design Component

• Any boat that is purchased from a vendor without major modifications to its operation will be disqualified

• No commercial batteries are allowed.

• The boat must be autonomous and not be controlled remotely

• All chemicals to be used should be brought on your own. No chemicals will be provided.

JUDGING CRITERIA

Team which will complete the maze in minimum time will be the winner. Abstract, Boat Design, Chemical Reaction Used, and the Performance in the arena are of great importance hence.

***TEAM FLOAT-E-BARCO RESERVES THE AUTHORITY TO CHANGE THE RULES OF THE EVENT AT ANY TIME WITHOUT ANY PRIOR NOTICE**

Event Head (Final Year)

Akanksha Agarwal (CH) Rimjhim Nigam (CH) Shubhendra Singh (CH)

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