



# 1-up-Troy

-this War will never be forgotten

7<sup>TH</sup> - 9<sup>TH</sup> MARCH IIT MANDI

### Introduction:

Long ago there was time when people like Leonardo used to make mechanical marvels like metal fly and wind up lion, which were very elaborate with complex systems of gears and springs.

The Battle of Troy began when Greeks sail across the sea with their Boats. Combining the two and bringing the golden era of wind-up-toys. Exodia invites you to sail across the sea with your own boat.

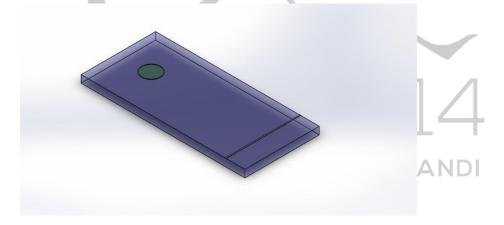
Bring yourself with intelligence and generosity of Leonardo Da Vinci to unfurl your flag on the land of Troy.

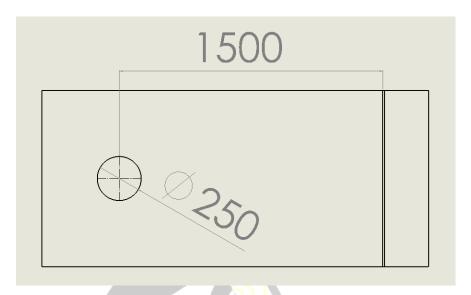
### Objective:

The aim of the participating team is to make a boat which can perform the following task.

### Task:

To run a straight path of about 1.5 metres, and as it reaches the destination it has to raise a flag.





Boat should go on its own to perform the task, once its loaded and triggered, participants with will not be allowed to touch the toy after that.

The stick of the raised flag should be perpendicular to the boat.

The flag have to be on the top of the stick.

The boat should be able to stand in water for a long period.

Any internal or external electric power source will not be allowed in the toy, the toy must be complete mechanical system.

Teams need to have their toy complete before the mentioned start time of the event.

Submit an abtract of your design and mechanism you are using in your toy. Abstract guidelines are given afterwards.

# **Rules:**

- 1. A team can consist of minimum 2 and maximum 3 members.
- 2. Students from any department can take part in the contest.
- 3. Students from different institutes can form a team.
- 4. Any kind of damage to the arena will attract disqualification.
- 5. Judges have the right to disqualify any team if they feel the team is not playing with fair interests.

### **Specification:**

- 1. The toy should fit inside a box of dimensions 25cmx25cmx100cm (lxbxh).
- 2. The stick for the flag can be of 15-25 cm long.
- 3. The flag can be of paper, cloth or plastic.

# **Loading & Triggering:**

A mechanical energy storage should be employed.

Only bare hands are allowed to give power to the toy, (like keys are rotated in gerenal wind-up-toys. So, here you can use only bare hands to rotate the key. No device like motor etc. are allowed to use.)

Any kind of (button or fire) trigger can be used, but the trigger should not push the boat with a huge force itself.

### Criteria:

- 1. The toy will be judged on the basis of design, mechanism and the task completion.
- The mechanisms with more mechanical elements like springs, gears, pulleys, cams, knuckle etc and using it effectively and efficiently will be considered better.

Weightage distribution:

Design-25%

Mechanism-40%

Task Completion-35%

- 3. There will be extra points for innovativeness.
- 4. Teams will be given 2 chances to perform with their toy, and best of the two will be considered.
- 5. Teams will need to demonstrate the functionalities in front of judges.

### <u>Abstract</u>

The written abstract should be prepared on the following lines:

- 1. Materials used for different parts.
- 2. Layout of the mechanism, for running the boat and to raise the flag.
- 3. Points considered for making the boat design.

Team name, Name of all the team members, college, degree pursuing, year should be mentioned on the front page of the abstract.

Last date for abstract submission is February 28, 2013.

Send your abstracts to <a href="www.wut@exodia.in">wut@exodia.in</a>

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