THRUST

INTRODUCTION

Every one of us has fantasies of space missions and travelling to the far distant points of light and other planets, so as to explore every nook and cranny of the universe. And the vehicle that has made such an exciting travel possible is "ROCKET". But just imagine if you could build your own rocket with the help of simple elements like water & air!

YANTRASHILPA gives you such an opportunity to build your own rocket with readily available materials. No need to have a complex knowledge of Aeronautics. All you need is water and air to power it, and a bottle for the body. Fuel your creativity with imagination and ignite it with your passion to reach the top of the sky! So come and be a part of this simplistic but amazing rocket science event.

PROBLEM STATEMENT

1. Design a single stage water rocket using a plastic container of maximum 2 litre capacity that uses a combination of pressurized air and water for propulsion to complete a defined task.

2. A launcher should also be constructed that can launch the water rocket safely. It should be equipped with a standard nozzle so that it can be used with the pump provided by us.

RULES

1.The maximum length of the rocket should be 70cm (excluding launcher and pipe length).

2. Only water should be used as a propellant. No gas other than air is allowed to be pressurized and provide thrust to the rocket.

3. Only pressurized air and water assembly should be used for launching. No other potential, kinetic, or any other form of energy will be permitted for the launch.

4. The launcher must remain intact and stationary on the ground or in you hand while and after the launching of the rocket

5. The neck of the container must remain intact and unaltered

6. The flange and the mouth of the bottle can be used to hold the rocket while pressurizing.

7. No metal parts should be attached to the rocket.

8. The participants are free to get their own air compressing device. We will provide a foot pump having a nozzle of standard size.

9. All methods of compression should be manual.

10. Mixing of any kind of substance is not permitted.

Teams violating any of the above rule will be disqualified.

EVENT

Rockets will be tested for maximum range. Rockets will be launched by the team itself, a standard size pump will be provided and the team will be solely responsible for its launch. Any event of damaging the pump or any part provided by us will lead to disqualification.

GAMEPLAY

The rockets will be tested for maximum range. The distance will be measured in a straight line perpendicular to the launch line. For this purpose the point where the rocket first touches down will only be considered.

Each team will be given two trials, best of two will be considered. If any broken part of your model is require to be fixed after 1st trial then it should be done with the permission of event coordinator.

The team whose rocket will travel farthest will be the winner.

All final decisions lies within the hands of judges and event coordinators