

## WATER ROCKET

Water Rocket is a mechanical even that involves the fabrication of a rocket whose fuel/thrust for flight is obtained by the use of water that is expelled at a large air pressure. It is an example of Newton's third law of motion. The event tests a couple of aspects of the rocket's flight. These include range, time of flight and accuracy of the launching mechanism.

### Problem Statement:

Design a water rocket that is completely powered by the thrust delivered by water expelled at high pressure along with Launchpad.

### Rules:

1. Maximum three 3 participants.
2. As its source of energy, the rocket body should be made only with plastic bottles of aerated soft drinks of maximum capacity 1.7 L and should be free of any fabrication failures or dents caused by heat exposure.
3. Each team must have their own launch pad.
4. The water rocket must use only compressed atmospheric air as its source of energy. Foot pump shall be provided at the venue.
5. Water or any non-inflammable liquids can be used as fuel (Only Water to be filled in the rocket will be provided by the organizers). Calculations regarding amount of liquid to be used is left to the choice of team.
6. The point where rocket hits the ground first will be taken as the point of landing and measurements will be taken considering this point.

### Format:

1. The event will be judged based on range and time of flight.
2. Every participating team's water rocket must cross a critical range which is 10 meters.
3. Points will be given to both range and time of flight, so teams with max range may lose if their time of flight is low. At the same time teams with max time of flight will lose if their rocket doesn't cross the minimum flight range.

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4. Each team will be given only one trial and a second trial may be given in case of close ties between the top teams.

**Contact:**

For detailed schedule of events, please visit our website. For further details contact

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