

# **CAT-A-PULT**

**Introduction:** Most of us have learnt projectile motion in class 11. So now it's time to apply that knowledge in real life. So, here we challenge all the physics enthusiasts to build a catapult not just for distance but most importantly for accuracy. Rounds of this event are based on the this year's theme of mindbend. Get ready with your amazing catapult to conquer the enemy region!!

# **Prize Money:**

1st Prize: 7000 2nd Prize: 5000 3rd Prize: 3000

**Problem Statement:** Participants have to design an object throwing mechanism that can throw an object of specific dimensions upto a particular range as needed.

### **ROUND 1:** 'SMASH THE ENEMY'

In this round, participants are supposed to target their enemy regions and throw the object into their area. Each region defined in the arena has different points; participants will get points as per the region wherein their object is thrown upto. Participants have to smash four enemies in a single chance. Round 1 is time based, participants have to destroy all their enemy regions in a time span of 3 minutes. According to the points scored, a specific number of participants will qualify clear round 1 and qualify for round 2.

## **ROUND 2: 'CONQUER'**

Participants have to attack the moving targets in a specified time limit of 5 minutes. In all, there are three moving targets placed at different positions. The more you hit the target, the more you score. This round will also test your model's precision and accuracy.







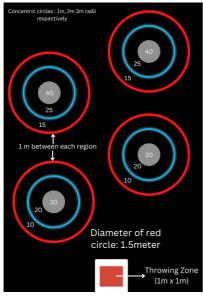




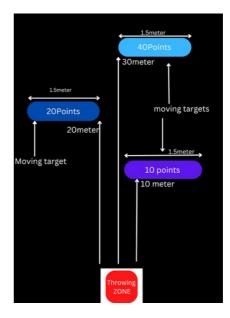


## Arena for Round 1:

(10, 20 and 30 refer to the points earned in that region)



### **Arena for Round 2:**



## **Team Specification:**

- 1. You can participate individually or in a team of a maximum of 3 members
- 2. Any number of candidates can participate from one college/school.
- 3. Participants are required to bring their school/college ID cards.
- 4. Once registered, the same candidate cannot register with another name for the event.
- 5. Organizers have the right to reject entries for any inappropriate username of the candidate.
- 6. Organizers must be notified if a candidate's username has been changed.

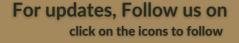
#### **Robot Specification:**

- 1. You have to make a manually operated Throwing Mechanism.
- 2. The mechanism is allowed to rotate only at the same place. During the event, the mechanism cannot change its position.

#### Rules:

- 1. Flammable substances like gunpowder, etc. cannot be used.
- 2. Size of object to be thrown: Light weight ball of dimensions resembling to that of a Table-Tennis ball.
- 3. Maximum range of arena: 40 to 50 meters.
- 4. Any misbehavior will lead you to disqualification from the competition.
- 5. Decision Taken by Judges will be final and binding for all.
- 6. If any of the above-mentioned rules are found to be violated, teams would not be allowed to participate in the competition.
- 7. If less then 15 teams have registered for the event only two prizes will be given and if less then 10 teams have registered for the event only one prize will be given.

















# **Judging Criterion:**

- 1. In first round, team scoring more points by targeting their enemy regions would be ranked higher.
- 2. Time would also be a judging criteria.
- 3. Among 1/3rd of participants would qualify for round 2.
- 4. In second round, team having maximum accuracy and precision in hitting the targets in minimum period of time would be ranked higher and declared as winners.

# **Registration Details:**

Fees: Rs. 80

Register at: https://mindbendsvnit.in/







