



## RULE BOOK

### CONTRAPTION – Mechanical Department

#### DESCRIPTION

The Contraption Challenge is a creative and technical competition where teams design and build functional contraptions within a specified space. The objective is to move a ball from one end of the contraption to the other, utilizing innovative pathways such as loops, slopes, and jumps. Teams will be judged on their creativity, functionality, and adherence to rules. This event is a perfect opportunity for participants to showcase their engineering, problem-solving, and teamwork skills.

#### RULES AND FORMAT

- **Team Size:** Each team must consist of **4-5 members**.
- There should be **minimum of 7 conversions** throughout the game path.
- **Dimensions**
  1. Teams must build their contraption within a **1.5m x 1.5m area**.
  2. There is **no height limit**, but the contraption must remain functional within the boundary.
- **Time Limit**
  1. Each team will have **2 hours** to assemble and test their contraption.
  2. The **final test** will be conducted after the assembly phase.
- **Game Path**
  1. Teams are tasked with moving the ball from one end of the given area to the other.
  2. Participants can create paths using loops, slopes (uphill or downhill), air routes, and water routes.
  3. Design modifications during the building phase are allowed but must remain within the designated area and utilize only the provided materials.



- **Guidelines**

1. All contraptions must be safe and free of hazardous materials.
2. Any design deemed unsafe for participants or the environment will result in **disqualification**.

- **Attempts**

1. Teams are allowed a **maximum of 2 attempts**.
2. The **best attempt** will be considered for scoring.

## **Scoring System:**

### **□ Points Allocation**

- **Completeness:** 40 points for successfully completing the task.
- **Creativity:** 30 points for innovative and unique designs.
- **Conversions:** 10 points for each conversion

### **□ Bonus Points**

- **Loops or Curvatures:** 5 points for each complete loop traversed by the ball.
- **Jump Points:** 5 points if the ball jumps in the air and continues its path.
- **Height Milestones:** 10 points if the ball climbs a height of 50 cm.

### **□ Negative Points**

- **Hand Touch:** 5 points deducted for each instance of touching the contraption during operation.
- **Boundary Cross:** Teams must restart their play if the ball crosses the allocated boundary.

## **REGISTRATION DETAILS:**

- Entry Fee: ₹300 per team.
- Registration Deadline: Teams must complete their registration before the deadline date.



## **DEMONSTRATION AND JUGDING:**

- After assembly, each team will demonstrate their contraption to the judges.
- Judges will evaluate contraptions based on creativity, functionality, and adherence to the rules.

## **PRIZES:**

- Prizes will be awarded in the following categories:
- Best in Show: Awarded to the most outstanding overall contraption.
- Most Creative: Recognizing the most innovative design.
- Most Functional: Highlighting the most efficient and practical contraption.
- Additional awards may be announced based on total points.

## **RULES DISCLAIMER:**

All rules are subject to change at the discretion of the event management team.