



**Shri Guru Gobind Singhji Institute of Engineering and Technology**

Vishnupuri, Nanded (Maharashtra State) INDIA PIN 431606

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**Vision Statement: Education of Human Power for Technological Excellence**



## **Contraption Cascade**

### 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.

**Participation : Open to all**

### RULES AND FORMAT

- 1.Team Size: Each team must consist of 4-5 members.
- 2.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.

## Points Allocation

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

## Bonus Points

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

## Negative Points

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