

EGG DROP CHALLENGE

Egg drop challenge is an on the spot event in which teams have to design a compact structure using different types of materials acquired by them through Auctioning. Teams have to drop the structure from a height of 40ft. The aim is to prevent the egg from cracking.

The egg may be considered to be an analogical representation of some precious cargo, such as a human being, that ideally would not be harmed upon reentry into the atmosphere from space. Egg drop challenge helps in cases where you have to drop something safe from certain height in an emergency.

EVENT STRUCTURE

1. Disclosure of materials available for making the structure. Teams are required to decide on their design and choice of materials keeping in mind the fixed virtual money Rs.100) provided to them.
2. Teams are required to submit their material requirements.
3. First slot for making the structure.
4. Testing of the structure - Each team will be given a maximum of two attempts. In case the first attempt fails, 10 minutes will be given to modify the structure for second attempt

RULES

- Maximum size of structure – 12*12*12(inch)
- Fixed height – 40 feet
- Maximum of 5 members per team is allowed.
- Use of adhesives between Material and Egg is not permitted.
- Maximum time will be 1 hour for designing the structure after getting material from auctioning
- The structure should be dropped with zero velocity.
- Two chances shall be given to each Team. However, the second chance will lead to a penalty of 10 points
- Teams are not allowed to take structure with them.
- Teams can only use material provided at that time through Auctioning. Using materials from outside will lead to disqualification.

JUDGING CRITERIA

- The model will be evaluated based on its effectiveness, simplicity, design explanation, aesthetics and time to design the model. There will be some penalty in case the model doesn't work in the first attempt.

Grading Policy (out of 100 points)

The model will be graded only if the egg remains intact or is just partially cracked (content of the egg doesn't come out).

- Partially Cracked Egg ▶ 10 points
- Intact Egg ▶ 30 points
- Simple & Effective design ▶ 20 points
- Design explanation ▶ 20 points
- Time taken - <30 min ▶ 20 points, <45 min ▶ 10 points
- Aesthetics ▶ 10 points

MATERIALS AVAILABLE

All the participating groups will be given an equal amount of virtual money i.e. **Rs.100** which they will use in buying the materials they are planning to use. Here is the list of materials that will be available to the teams along with their respective cost:

<u>Material</u>	<u>Cost(Rs)</u>	<u>Limit</u>
Thermocol (25cm*25cm)	25	N.A
PU Foam (25cm*25cm)	35	N.A
Cardboard (25cm*25cm)	20	N.A
Balloons	10	1
Cello Tape	5	3
Glue	5	3
Cotton Roll	10 (for 10g)	N.A
Straws	5 (for 20 straws)	N.A
Hay	5	N.A
Newspaper	5	N.A
Thin strips of wood	5	N.A