

EGG DROP

Description: Design a container to keep a raw egg from breaking when dropped from a pre-determined height.

Number of Participants: 2

Competition:

Construction

1. Only the two students per team are allowed into the assembly area to design & build the container. Coaching from adults and other students is not allowed and will result in disqualification of the team receiving coaching.
2. Teams must report to the building session on time and must construct their container within that half-hour session.
3. All teams will receive exactly the same amount and quantity of materials when they enter the assembly area. What follows is a **possible** list of materials: Plastic canvas -approx 5, 7 or-10 holes per sq in.; Cotton balls; Garbage bag wire twist ties; Bubble wrap; Pipe cleaners; Bridal Tulle; Bamboo skewers; Masking tape; Poster board; Foami craft foam; String; Plastic drop cloth; Elastic cord; Small weights; Portion of a 1-liter drink bottle.
4. Parachutes, wings and rotors are allowed. Be creative.
5. The egg will be given to each team after the build time has elapsed and prior to the team's 1st drop.
6. The egg will be placed in a clear sandwich bag in order to contain any mess, but nothing else may be in the bag with the egg, or added to the bag prior to placement in the project. The sandwich bag may not be inflated or used as a building material.
7. The container must be constructed so that the egg can be examined between each round. After each drop, the contestants will be required to show their egg to the judges.
8. The egg may not be completely encased or sealed within materials as to make it invisible to the judges. The egg must be easily inserted and removed by the judges. Judges must be able to completely examine the egg without deconstructing essential portions of the project.
9. Other than replacing the egg, no other adjustments may be made between drops, and no additional materials may be added, including tape.

Dropping

1. Each team will create a container for an egg that may be dropped up to three times from three different heights:
 - a. 1st - from about 5 meters
 - b. 2nd - from about 10 meters
 - c. 3rd - from between 15 and 20 meters
2. One student from each team will drop their container from the first height. If after dropping the container the egg has not broken or cracked, the team will move to the next height.

3. Teams may elect to drop their egg from the 2nd or 3rd height for their first drop.
4. Between drops no repairs or changes may be made to the container.
5. The same container must be used for all the drops.
6. If the egg comes loose from the structure and breaks, it is out of the competition. The drop at which the egg broke will be noted.
7. No cracking may occur on the egg in order for the team to progress to the next round.
8. Spectators may watch the Dropping Portion of this event, but may NOT offer any advice or coaching to any team members.

Egg

1. The egg will be a Commercial Standard Grade "A" (Large Size) chicken egg.
2. The egg cannot be tampered with or altered physically or chemically.
3. Each group will receive ONLY one egg.
4. The egg will be inspected before handing it to the student. After the egg is handed to the student it is considered to be in play. If the egg is damaged prior to the drop the team will be disqualified.

Scoring:

1. All teams that survive the highest level will receive an award.