**Naked Egg Drop Rules and Score Sheet**

**Materials Note:** *Prohibited materials* include any food or food ingredient, all powders (sand, flour, baby  
powder), and pastes and gels that stay wet. Dried glues are allowed. All other materials are permitted.

**Construction Rules:**

1. Egg catchers must be built by the students with no banned materials. After being turned in, no modifications to the egg catcher are permitted.
2. The egg catcher height may not exceed 25 cm. Measured parallel to the ground, no dimension of the egg catcher may exceed 25 cm.
3. All materials in the egg catcher must be secured to the structure (see Competition Rule 2)

**Competition Rules:**

1. The drop height is the perpendicular distance from the ground to the egg catcher’s highest point.
2. After measuring to that verify catcher dimensions are not too tall or big, judges will invert and shake each egg catcher. Anything that falls out may not be replaced by the judges or student engineers.
3. The eggs are dropped by a student on a ladder, or an egg dropper device, over a tarp on a hard surface.
4. Competitors are responsible for placing the egg catcher and may reposition it between drops.
5. A maximum of three drops are permitted. The first must be from a minimum of 100 cm above the egg catcher. Each additional drop must be at least 30 cm higher than the previous (up to the maximum height of the egg dropper) as selected by the competitors.
6. The highest drop that results in a completely undamaged egg—no chips or cracks, even if the egg is intact—is recorded.

A close up of a hanger

Description automatically generated**Scoring and Awards:**

1. Awards are given for the largest “drop ratio.” *drop ratio = the maximum undamaged egg drop height (cm), divided by the egg catcher height (cm)*
2. In case of a tie, the egg catcher with the smallest “minor diameter” (smallest edge-to-edge measurement through the center) is the winner.

***You must thoroughly understand the rules and scoring on this page  
so that you know the constraints (requirements and limitations) of the problem well,   
so you can create a smart winning design.***

**Egg Drop Score Sheet**

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| --- | --- | --- | --- | --- |
| **Students / Team** | **Material Check** | **Dimension Check** | **Competition Data** | **Scoring and Awards** |
| 1.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  2.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **Permitted materials?**  yes or no  **Shake test:**  secure or loose | **Catcher height:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **Width, length and/or diameter are < 25 cm**:  yes or no | **Drop height 1:**\_\_\_\_\_\_\_\_\_\_\_\_  Break? yes or no  **Drop height 2:**\_\_\_\_\_\_\_\_\_\_\_\_  Break? yes or no  **Drop height 3:**\_\_\_\_\_\_\_\_\_\_\_\_  Break? yes or no | **Drop ratio:** \_\_\_\_\_\_\_\_\_  **Rank:** \_\_\_\_\_\_\_\_\_\_\_\_\_  drop ratio = highest drop height ÷ catcher height |
| 1.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  2.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **Permitted materials?**  yes or no  **Shake test:**  secure or loose | **Catcher height:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **Width, length and/or diameter are < 25 cm**:  yes or no | **Drop height 1:**\_\_\_\_\_\_\_\_\_\_\_\_  Break? yes or no  **Drop height 2:**\_\_\_\_\_\_\_\_\_\_\_\_  Break? yes or no  **Drop height 3:**\_\_\_\_\_\_\_\_\_\_\_\_  Break? yes or no | **Drop ratio:** \_\_\_\_\_\_\_\_\_  **Rank:** \_\_\_\_\_\_\_\_\_\_\_\_\_  drop ratio = highest drop height ÷ catcher height |
| 1.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  2.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **Permitted materials?**  yes or no  **Shake test:**  secure or loose | **Catcher height:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **Width, length and/or diameter are < 25 cm**:  Yes or no | **Drop height 1:**\_\_\_\_\_\_\_\_\_\_\_\_  Break? yes or no  **Drop height 2:**\_\_\_\_\_\_\_\_\_\_\_\_  Break? yes or no  **Drop height 3:**\_\_\_\_\_\_\_\_\_\_\_\_  Break? yes or no | **Drop ratio:** \_\_\_\_\_\_\_\_\_  **Rank:** \_\_\_\_\_\_\_\_\_\_\_\_\_  drop ratio = highest drop height ÷ catcher height |
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