

EGG DROP COMPETITION

Design Objective: Design and build a container that will prevent an uncooked grade large chicken egg from breaking over a series of drops between 1 and 10 meters.

Design Parameters: The container must have no dimension longer than 30 cm (length, width or height). Maximum weight including the egg cannot exceed 1 kg. Contestants must be able to remove the egg without damage within 60 seconds of touching the dropped container.

Testing Conditions: Each model will be measured, weighed and drop-tested. Each model will be evaluated by the following equation:

$$\frac{50 \cdot (S \cdot H)}{W + L}$$

W = Weight in gm

L = Longest dimension in cm

H = Height of drop in m

S = Success factor (number of successful egg drops out of 5 total drops)

Design teams will be allowed to specify the desired drop height for each drop. Eggs will be dropped a total of 5 times. Teams will get 2 eggs and awarded a score of 1 for a successful drop and 0.5 for a damaged but unbroken egg drop, and 0 for a fully broken egg. Teams will be awarded 3 extra success points for successfully dropping a single egg five times without breaking it.

Materials: Acceptable materials include

Soda Cans

Soda Bottles

Milk Cartons

Cotton Balls

Masking Tape

Paper Towels

Tissues

Dental Floss

Newspapers

Balloons