

Egg Drop Extra Credit Procedure

You and a partner must construct a container that will protect an egg from breaking when dropped from a great height. You may use any materials in constructing your container subject to the rules below:

- 1) You can **NOT** use a parachute or Helium balloons as lift devices.
- 2) Your container **must weigh less** than 114 g (1/4 lb) with the egg included.
- 3) No Hard Boiled Eggs

Scoring Rules for Gaining Extra Credit

You can earn up to 5 % on your total test average by performing a perfect drop (egg doesn't break) with a container that meets all the criteria above. You get 2 chances to succeed. The breakdown of how you will gain extra credit points is as follows:

+1 % : Building a container under the above guidelines that shows creativity

+1 % : Write a short paragraph explaining how your container works in protecting the egg from break (what is the physics behind this?)

+1 % : Calculate the theoretical speed of the egg/container when it hits the ground in *mph*.

(Assume $g = 9.8 \text{ m/s}^2$, $d = 18 \text{ ft}$ & $v_i = 0$)

** What might prevent your container from reaching this speed?

+1 % : Container survives drop(s) regardless of what happens to the egg.

+1 % : Egg remains intact after first or second drop