

2013 Physics Fun Day - Contest Rules

# EGG DROP



**Objective:** To construct a paper container of original design and of minimum mass that will protect a raw, large-size egg from breaking or cracking when dropped from a fixed height of 13 m (the roof of the NMSU Physics building) to a concrete floor.

**Materials:** To bring with you: Construction aids such as scissors, rulers, pens, or pencils.

To be provided to you: A raw egg (~60g), 10 sheets of 8.5" x 11" paper (~4.5 g per sheet) and 1.0 meter of Scotch tape.

- Rules:**
1. Each school will be permitted two teams, each with two competitors.
  2. Each team will be given one egg; the mass of the egg is recorded.
  3. Each team will be given 30 minutes to construct the container, which must fit through door openings.
  4. The mass of the container plus egg will be weighed by the 'officials'.
  5. Your contraption will be conveyed to the roof by one of the 'officials'.  
The team members will go to the area outside the east lobby for the event.
  6. The condition of the egg (intact, broken, or cracked) will be determined by the 'official' after each drop.
  7. The winner will be the team (a) whose egg does not break or crack and (b) whose crate has the smallest mass.

**Record:** 20.7 g crate (1998, Las Cruces High School)