

Egg Drop Project 2013

Objective:

NASA is looking to design a space vessel that will transport a human to Mars and safely land on its surface. The cost of using the actual building materials is too great so your design team has been hired to build a model transport vessel with building materials that have similar properties as the actual materials. A jumbo egg will be used to simulate the human. Your goal is to design a vessel that will keep the egg from cracking when dropped from the balcony in the gym.

Vessel Building Materials

- 1 gallon plastic milk jug
- 1 raw Jumbo egg
- 6 sheets of paper
- 1 foot of duct tape

Rules

- The vessel must be made only with the materials provided.
- You may cut holes in the milk jug, but the main structure must remain intact.
- Your team will be allowed 2 eggs for testing.
- The egg cannot have anything physically attached to it.
- I must watch you place the egg in the vessel and remove it after the drop for inspection.
- Find the mass of your vessel before dropping and measure the height of the drop.

Scoring (20 points for drop)

- 20 – Egg survives the fall from the balcony intact 1st try
- 17.5 – Egg survives the fall from the balcony intact 2nd try
- 16 – Egg survives the fall from the ceiling intact
- 14 – Egg survives the fall from the desk intact

Project Report (10 points)

Use the standard format for the report.

Timeline

- Nov 22nd – Project introduction, group choices (2-3). 1st Journal entry
- Nov 25th – Design and testing, 2nd journal entry
- Nov 26th – Drop day, 3rd journal entry
- Dec 2nd – Web page project report due