



Society of Women Engineers

ASPIRE • ADVANCE • ACHIEVE

SWENext Engineering Challenge #2

When you complete the activity, please share your finished project with us using pictures and/or videos on facebook, Instagram, or other social media! Use the hashtags #SWEtheFuture #SWENext #BeThatEngineer #EggDropEngineering when posting. We can't wait to see what you come up with! Each week we will feature one great design from the prior week.

Egg Drop

Your Challenge: Design a device using materials around your house to protect an egg dropped from 3ft.

Extra Challenge: Drop your egg from more heights (steps, porch, bleachers, etc.) and see how high your egg can survive.

Materials: hard boiled eggs, any materials you have around your house

Steps:

1. Brainstorm:
 - a. How will you make a frame that holds the egg?
 - b. What material will you use to absorb shock?
2. Design: Sketch a design of your device and determine what materials you will need.
3. Gather your materials.
4. Build your device.
5. Test your device.
6. Evaluate and redesign.
7. Re-test your device.
8. Repeat improving and retest to see how high your egg can survive!
9. Share your design with us and tell us your maximum height achieved! #SWEtheFuture #SWENext #BeThatEngineer #EggDropEngineering

Real Life Application: <http://mars.jpl.nasa.gov/multimedia/videoarchive/?n=2004> Choose videos titled: **“How to Land Softly on a Hard Planet”** and **“Mars Exploration Rover Entry, Descent and Landing on Mars”**