

Fli nker

What You Need

- foam packing peanuts
- paper clips
- clear container that will hold water (like a soda bottle with the top cut off)



Engineering Scoop

When you put a foam peanut in water, the water "**pushes up**" on the peanut. (This is called a **buoyant force**.) At the same time, the weight of the peanut "**pushes down**" on the water. If the "pushing down" force of the peanut is **less** than the "pushing up" force of the water, the peanut **floats**. If the "pushing down" force of the peanut is **more** than the "pushing up" force of the water, the peanut **sinks**. If both forces are exactly **equal**, the peanut **flinks!** (It doesn't rise or sink in water.)

What's a Flinker? It's something that doesn't float or sink but just "flinks" in the middle.

- 1 Fill** a clear container with water.
- 2 Place** a foam packing peanut in the water.
What happens?

3 What can you do to make the peanut **flink** (neither float nor sink)? Here are some ideas: **Attach** paper clips to your peanut. Or **change the shape** of the peanut.

4 Experiment! Keep changing the design of your Flinker until it **flinks** for 10 seconds.



Sent in by Sarah P. of Maribel, WI



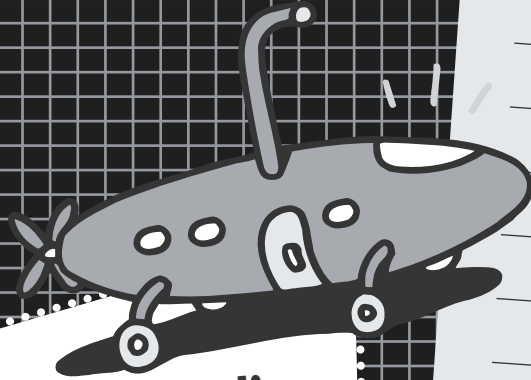
Try making a **different object**, like a small sponge or a penny, flink. **Predict** what you think will happen. Then **test it** and **send** your results to ZOOM.

Flinker

Engineer's Notebook

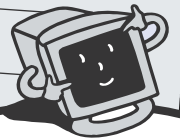
My Prediction

What Happened



Engineers Wanted!

Did you know that most of the Earth is covered by water? As land becomes more crowded, people may someday **live under the ocean**. Underwater vehicles will be needed to build these communities. People will also need ways to travel between their underwater homes and the land. These vehicles will need to float, sink, and “flink.” Engineers like **you** could design flinkers of the future!



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