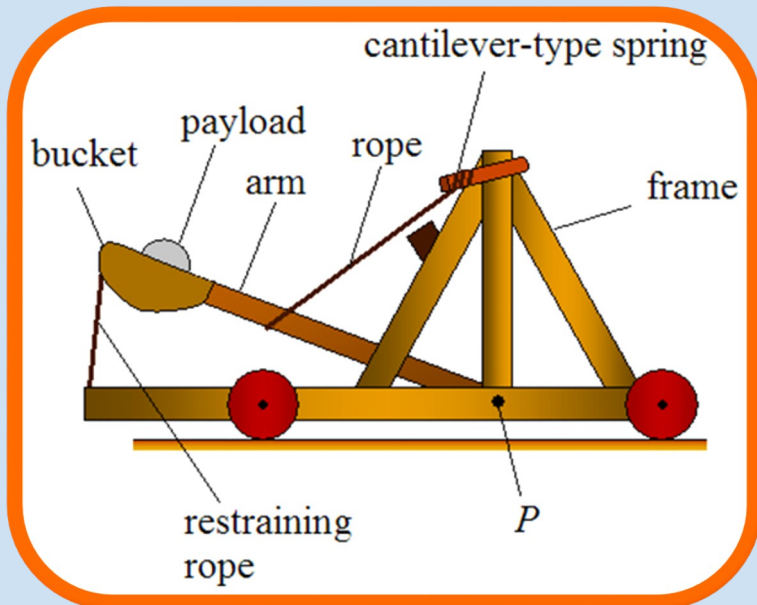


# Potential and Kinetic Energy With Catapults

Catapults in the Navy are a major- and standard- piece of equipment on aircraft carriers. They launch jets into the sky using steam power as they transform potential energy into kinetic. Back during WWII, much smaller catapults were used to launch small reconnaissance planes, and could be found on many ships, including submarines!



## Materials

Popsicle sticks  
Rubber bands  
Table Tennis Ball  
Small bowls ("goals")  
Tape Measure

## Challenge!

Can you build a catapult that can launch a table tennis ball?

Look at the images to create your design! When you build your catapult, how will tension in the throwing arm release to launch your object? Can you aim your catapult to launch a small ball into a bowl? Use a tape measure to see how far can you launch your object!



## What's Happening?

Potential energy is energy that's stored in an unmoving object, while kinetic energy is the observable energy of an object moving through space. In a catapult, an object is held in a basket at the end of an arm, which is pulled tight against the ground to maximize potential energy. When the arm is released, the basket sends the object flying into the air, transforming the potential energy into kinetic energy.