

## Roll-back Can

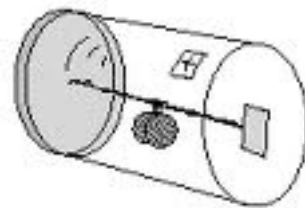
### Materials:

- A small container that can be laid on its side and rolled and have a hole punched in its top and bottom
- One thick rubber band about 3-4 inches long (8-10 cm)
- Two tooth picks or paper clips or half of popsicle stick
- Several washers, Large Metal Nut, (a heavy object with a hole in the middle)
- Hole punch tool or scissors
- Tape



### Procedure:

1. First cut a small hole in the center of the lid and make a hole at the bottom of the can, using a screwdriver or scissors.
2. Attach the weight to the rubber band in a way so that you have two loops with the weight in the center.
3. Carefully thread one loop of the rubber band through the hole in the can, and secure it using one of the sticks and do the same for the lid, making sure the weight stays roughly in the middle of the can.
4. Secure the lid onto the can.



**5. Placing the can on the floor or table top, roll the can backwards 1-2 feet and let it go. Try doing the same thing up hill at an angle or incline. Is your can strong enough?**

### Scientific Investigation:

1. **What happens when you roll the can back more than 1-2 feet?**
2. **When is the POTENTIAL ENERGY the greatest?**
3. **When the CAN stops rolling, where did the energy go?**
4. **Explain how this toy works by using the terms POTENTIAL & KINETIC Energy**