





## Cadette at Home Rubber Band Rollback Can

### Instructions

1. First, if you wish, decorate the container with paper, washi tape, and/or paint.
2. Next, carefully poke holes in the center of the lid and bottom of the can with the hammer and nail or screwdriver.
3. Squash the rubber band down in the center and tape it to the top of the weight. The rubber band should now have two loops, one on either side of the tape.
4. Slip one loop of the rubber band through the hole on the bottom of the container from the inside. Slide a paperclip through the loop on the outside to keep the rubber band from slipping back through the hole.
5. Make sure the weight is centered in the can. Then, slip the other rubber band loop through the hole in the lid and secure with a paperclip. Put the lid on.
6. Make sure the weight is not touching the inside of the can. If it is, you'll be able to hear it, and you'll need to use a shorter band or lighter weight instead.
7. Roll the container away from you on a smooth, flat surface. What happens?
8. Now, experiment! What happens if you use more than one rubber band? What if you use a different-sized can? What if you change the position of the weight, or the amount of weight? Come up with something you want to try and try it!

### Virtual Troop Meeting Ideas



**Video share.** Have your Girl Scouts complete this activity on their own, and then share a video of: a) their rollback can completed through step 7, and/or b) their experimental rollback can from step 8!

**Text or voice chat.** Have your Girl Scouts discuss what kinds of energy are at play in this experiment. What are all of the forces acting on the can? Where does the energy go when the can stops moving?