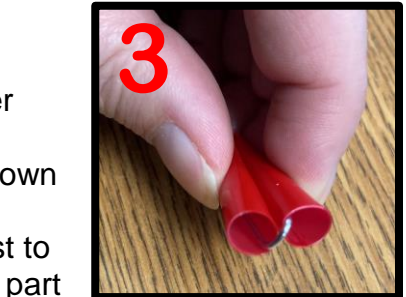
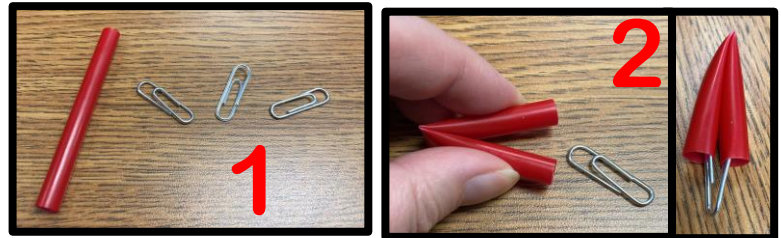


## Straw Cartesian Diver

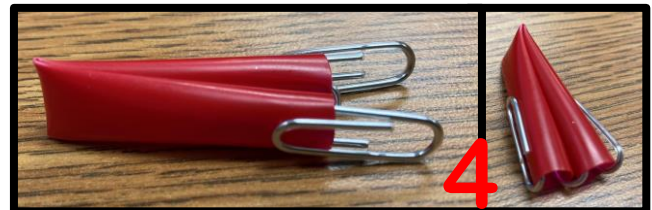
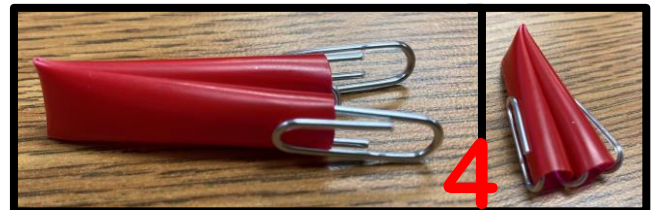
### Materials

Empty plastic beverage bottle with a lid  
Three paperclips  
One plastic straw  
Scissors



### Directions

- 1) Cut a 2-3" length of straw as show in image 1.
- 2) Fold the length of straw in half and put a paperclip through either side to hold it together as shown in images 2.
- 3) Push the paperclip in the middle all the way into the straw as shown in image 3.
- 4) Put two more paperclips on either side of the straw. It works best to put the larger part of the paperclip on the inside and the smaller part on the outside of each leg of the straw. Push them all the way in as shown in images 4.
- 5) Test you diver in a cup with water. If it sinks to the bottom, like the one on the right in image 5, then remove a paperclip and make sure it doesn't have water in it. If it floats on its side, pinch it a little to let an air bubble or two escape. The goal is to adjust the density so it just barely floats like the diver on the left in image 5.
- 6) Put the diver into a plastic bottle filled to the brim with water as shown in image 5.
- 7) Put the cap on the bottle tightly.



Watch the videos below in order. Use the straw diver in place of the ketchup packet.

- 1) <http://bit.ly/MagnetizedFinger>
- 2) <http://bit.ly/SinkingKetchupPacket>

