

# Make an Electromagnet

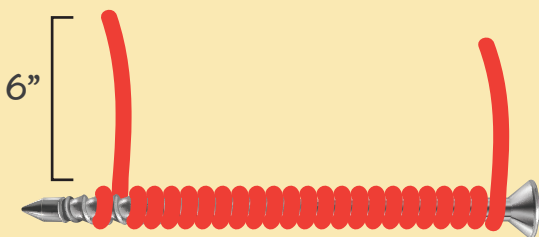
## You will need:

- 5" long iron nail
- Magnet wire
- Paper pins
- Battery
- Electric tape.



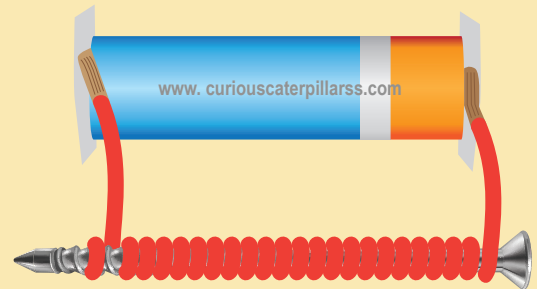
**Step 1:** Clean the iron nail of any surface dirt and rust.

**Step 2:** Take magnet wire and wrap it around the nail leaving around 6" of wire loose at the end. Wind the wire on the nail without overlapping and leave an inch uncovered at both ends of the nail.

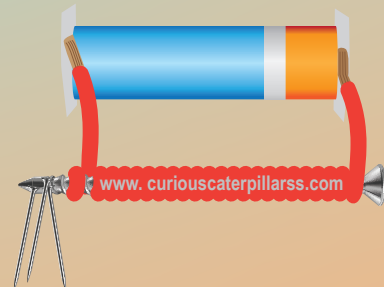


**Step 3:** Cut-off the wire leaving 6" loose after the nail is wrapped.

**Step 4:** Scrape the loose ends of the wire to remove the outer coating. Attach the ends to the battery. Secure with tape. Your electromagnet is ready!



Bring uncovered end of the nail near the paper pins and see what happens. Unsecure one end of wire from the battery and see what happens.



Take it further. Try making fewer and more rounds of wire around the nail. Does the number of rounds effect the strength of your electromagnet?