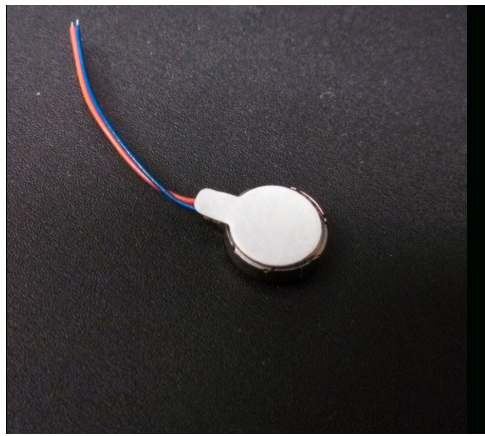
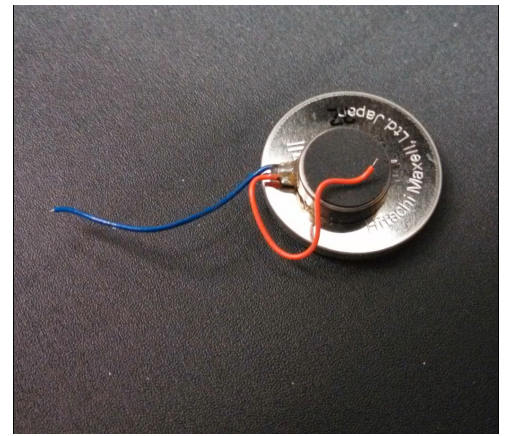


STEP BY STEP

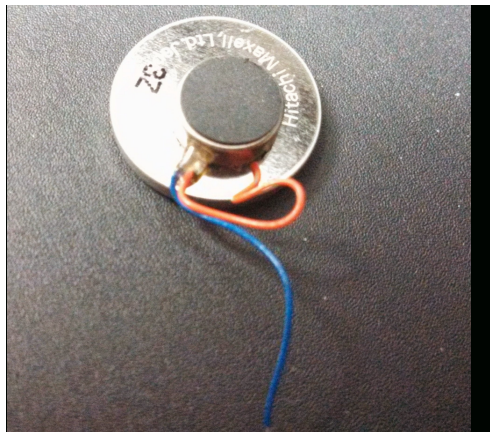
VIBROBOTS



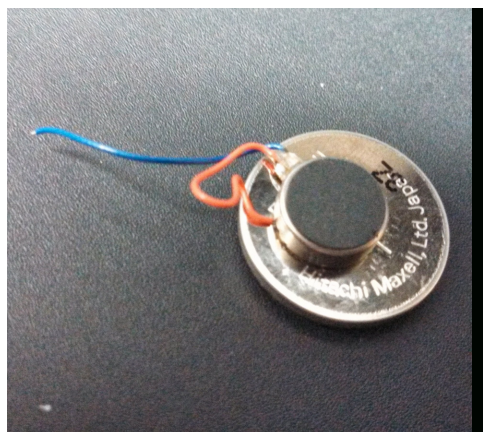
Step 1:
Look at the bottom of the cell-phone motor. There's a white piece of paper covering the sticky part. Peel the paper off.



Step 2:
Stick the motor to the positive end of the motor. It will have a (+) symbol and writing on it most of the time.



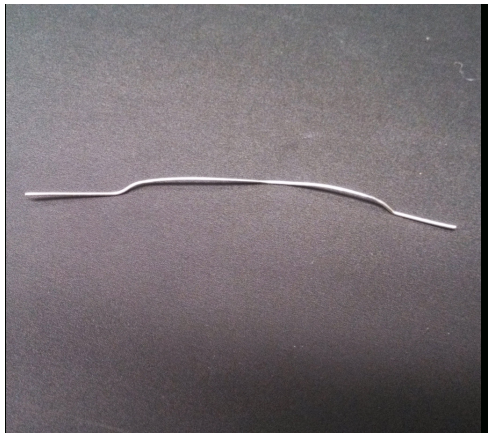
Step 3:
tuck the red wire under the motor. This usually creates the first part of the connection and holds it in place initially.



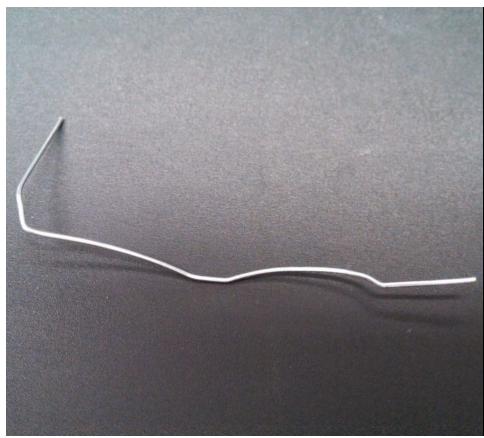
Step 3:
Another view of the wires. To test the circuit, touch the silver end of the blue wire to the negative side of the battery which is on the bottom. If it buzzes, you've created a good circuit! Add glue, clay or tape to hold the red circuit in place. Keep the blue wire loose.



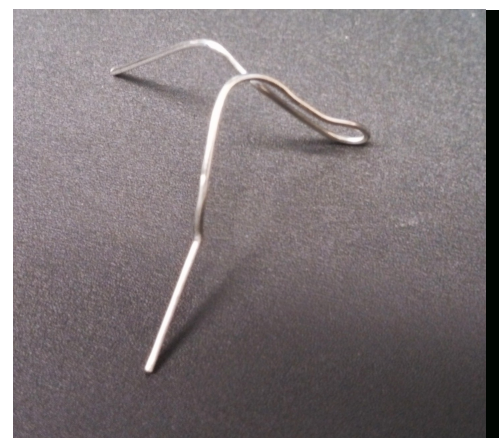
Step 4:
Get a paperclip.



Step 5:
Unfold your paperclip into a straight line.



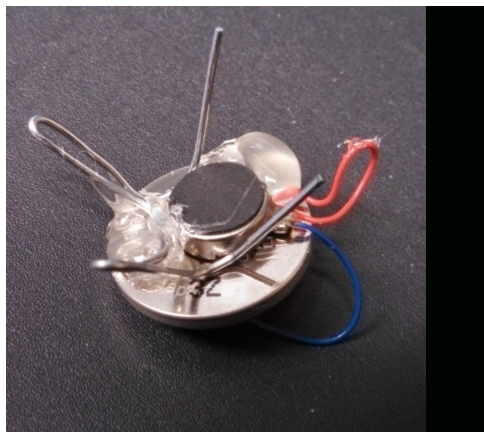
Step 6:
Start bending to create legs.



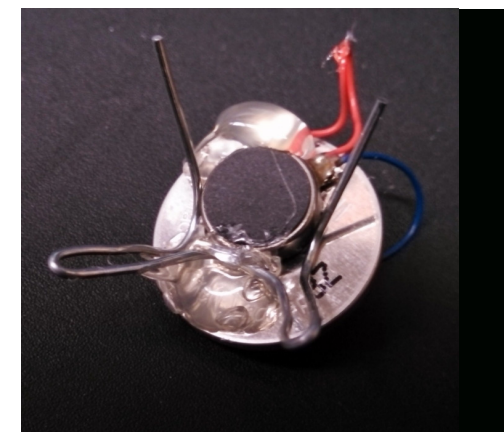
Step 7:
This is an example of 3 legs.



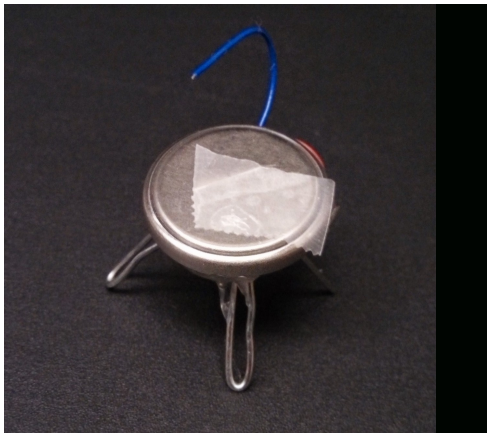
Step 7:
this is an example of 4 legs.



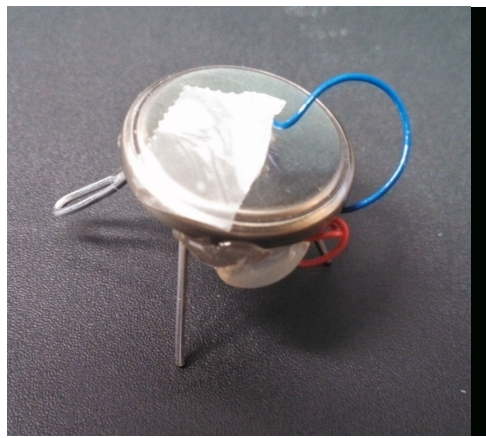
Step 8:
Glue the legs onto the robot.



Step 8:
Another view of the robot.



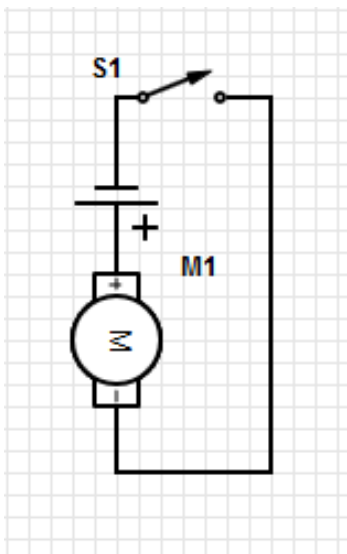
Step 9:
Flip your robot over.



Step 10:
Touch the wire to the robot and hold it down with tape. It will start dancing around because of the vibration of the motor.



Step 11:
Turn the robot off by removing the wire from the battery.



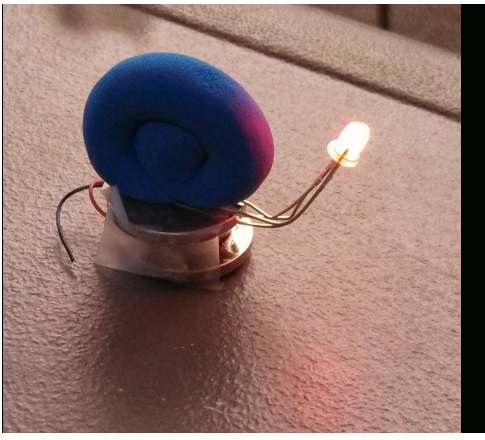
A diagram of the simple circuit with the "switch" open. Closing the switch – touching the wire to the battery – closes the circuit and turns everything "on."



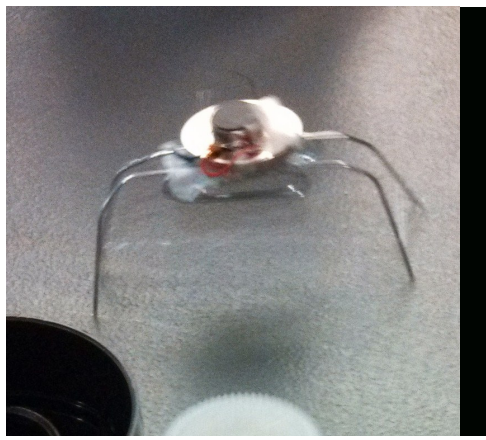
Troubleshooting:
Most of the problems found when working with these vibrobots comes from the connection of the wire to the battery. If you don't have a good connection, your bot won't move. The Insulation (the colored part of the wire) can be scraped off, carefully, to reveal more wire for a better connection.



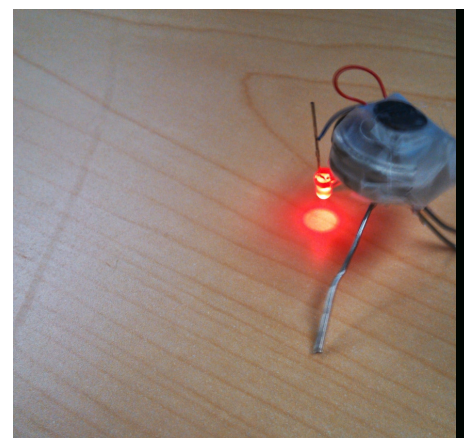
Variation 1:
Put the vibrobot in a box and scare your friends and family!



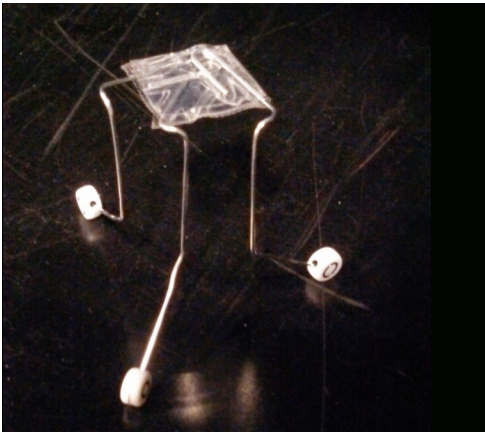
Variation 2:
Snailbot! Add LED lights to your vibrobot. (may need an extra battery as shown.)



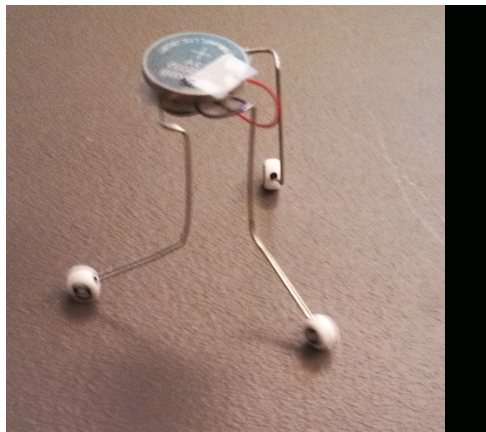
Variation 3:
Crab-bot. Variation on the legs.



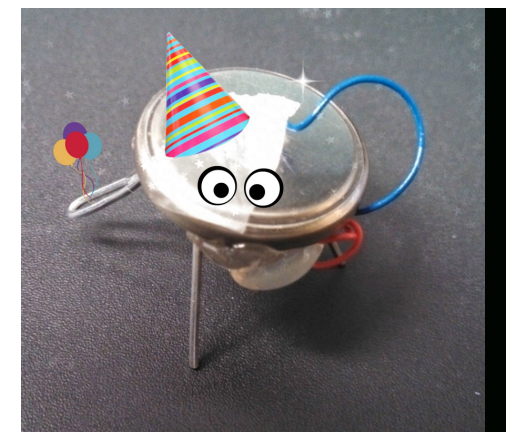
Variation 4:
Add an LED. This vibrobot needed an extra battery, too.



Variation 5:
Cool tall vibrobot base.



Variation 5:
Tall vibrobot completed.



What will you come up with?