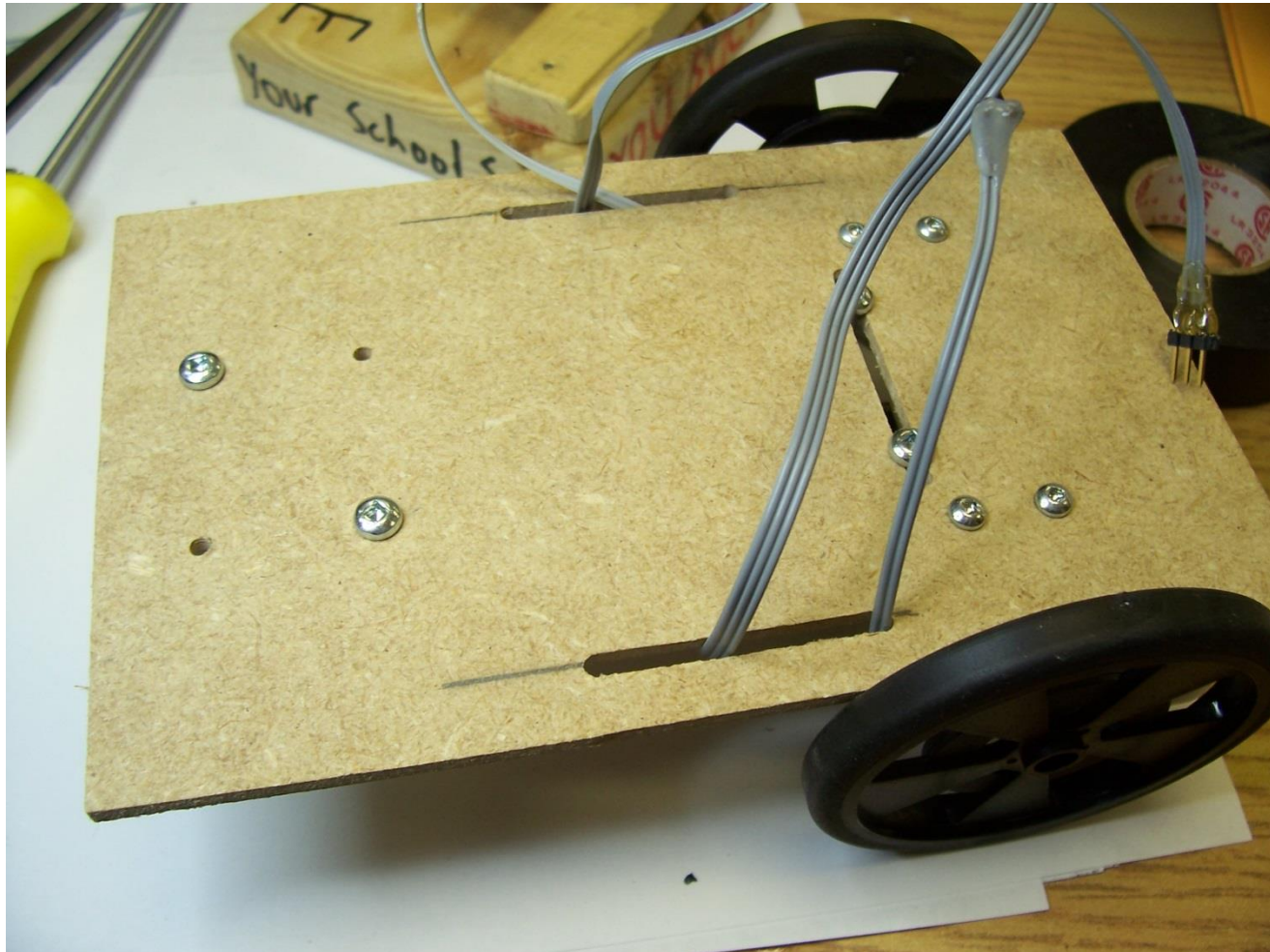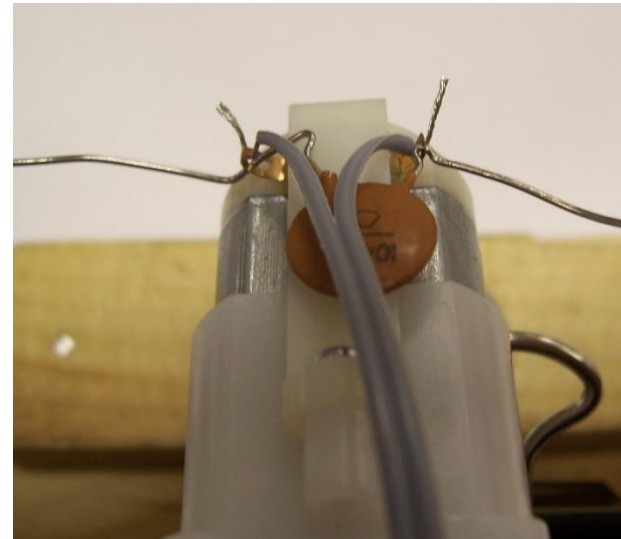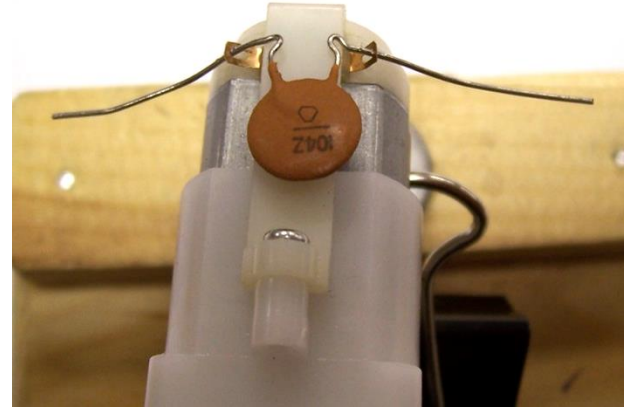# Bot Assembly

Attach the Mounting Bracket

- Place the bracket over the axle and use a #4 screw to secure to motor.

- Make sure that the bracket is mounted in the opposite direction on the second motor
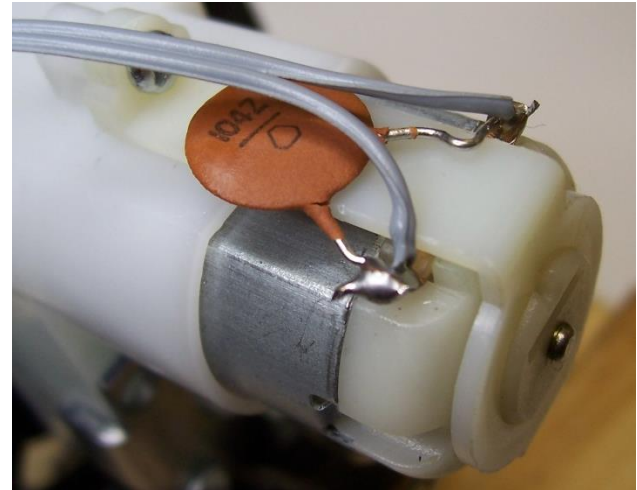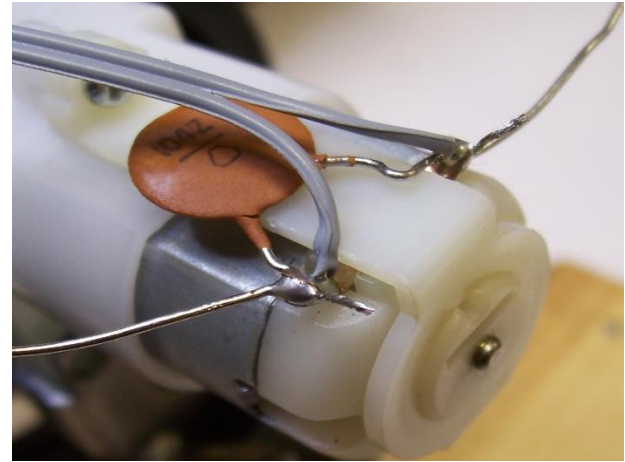
Attaching the Cap and Leads

- Insert a 0.1uF ceramic disk capacitor into the motor terminals.
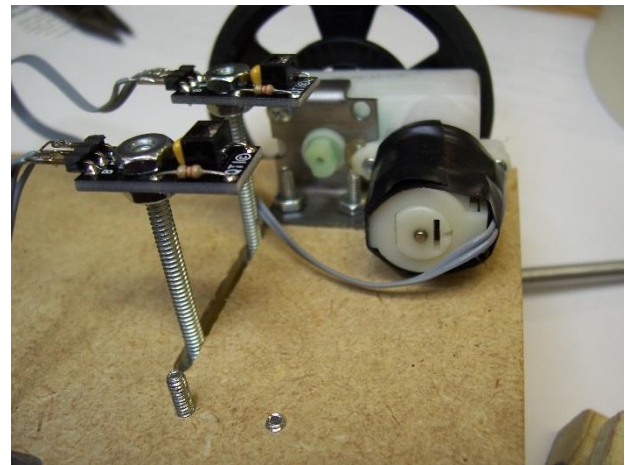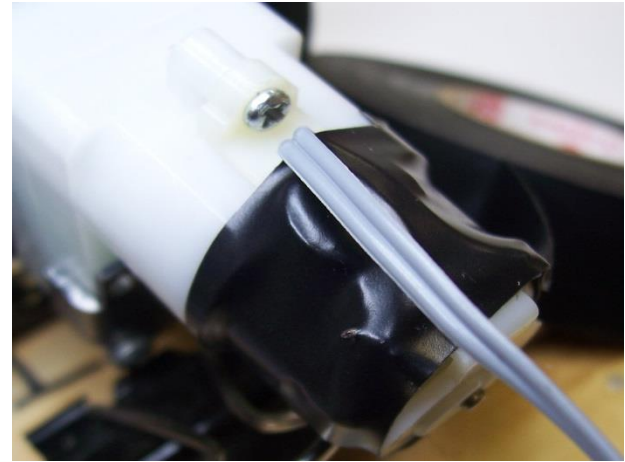
- Then insert the stranded wire.

Solder and Trim

- Solder the terminal, capacitor and lead.

- Tim the excess wire.

Taping the Motor

- Wrap electrical tape around the motor, capacitor and wire.

- Fold back the wire and apply a few more turns of electrical tape. This ensures that if the wire is pulled it doesn't pull on the terminal.

Mount the Motor and Sensors

- Mount the motor to the base using #4 bolts and nuts.

- Using #6, 2 inch bolts, mount the sensors. You will require 3 nuts for each bolt. Sensors should be only 1/4 " off the surface.
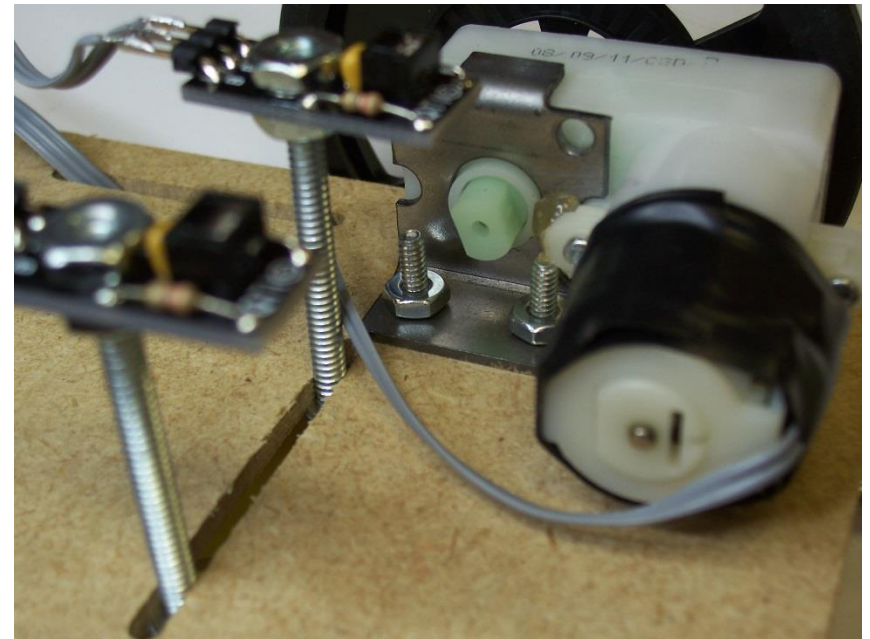
Finishing Touches

- Make sure the sensors are separated by an amount greater than electrical tape width.

- Feed the other end of the wire through the slot and solder them to header pins. Hot-glue them to make them stronger.
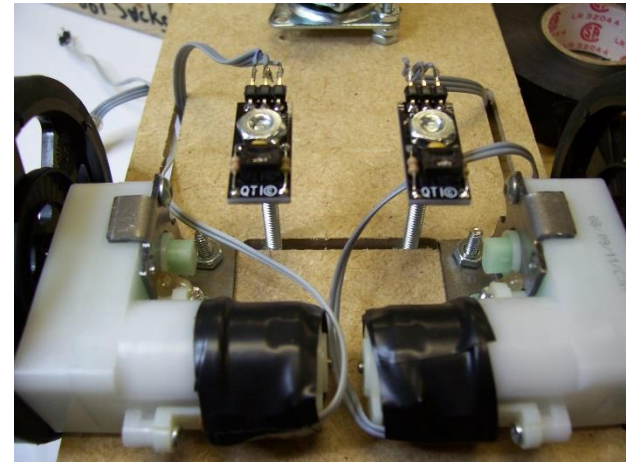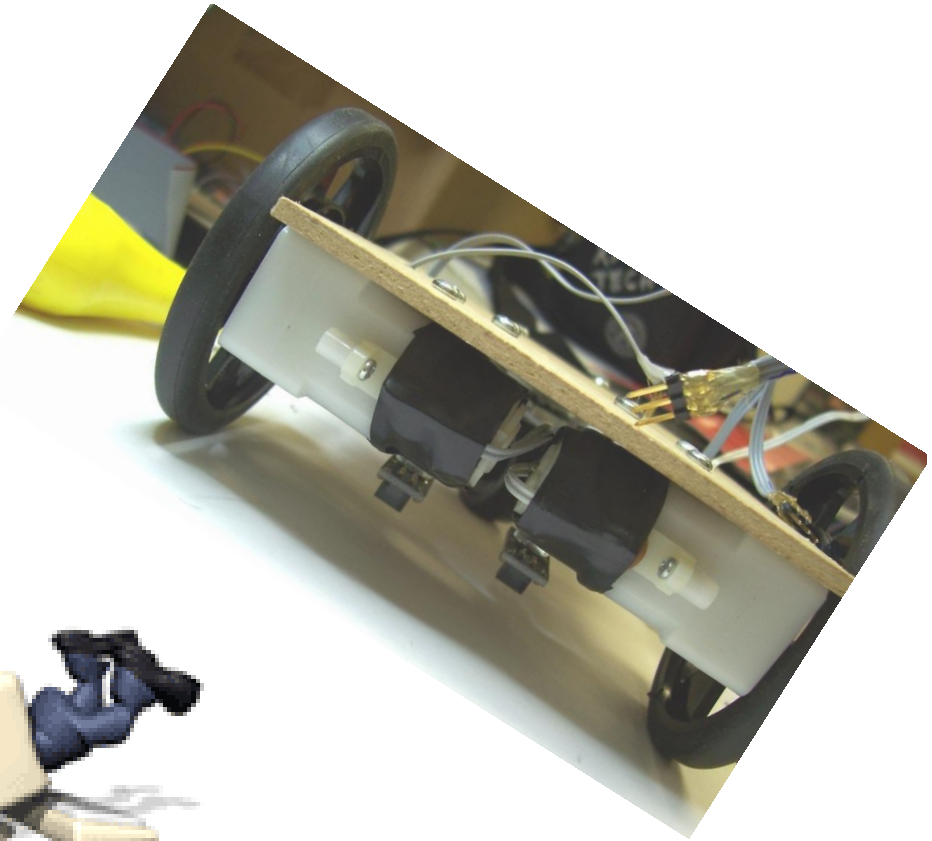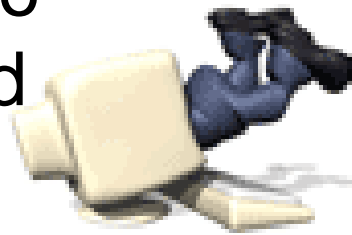
Adding the Caster

- Using #6 bolts secure the caster to the base. Again, use 3 nuts each to adjust the height so that the base is level.

Ready to Plug and Play

- Your motors and sensor should now be ready to plug into your breadboard/Arduino.

- You are now ready to Mount your Arduino on top of the Board and program it

Creativity

- This is only just a standard example of how the line follower should look like. However, each line follower should be made of a different base/material. It should also look nice for a level 4 on design. (not a square!)