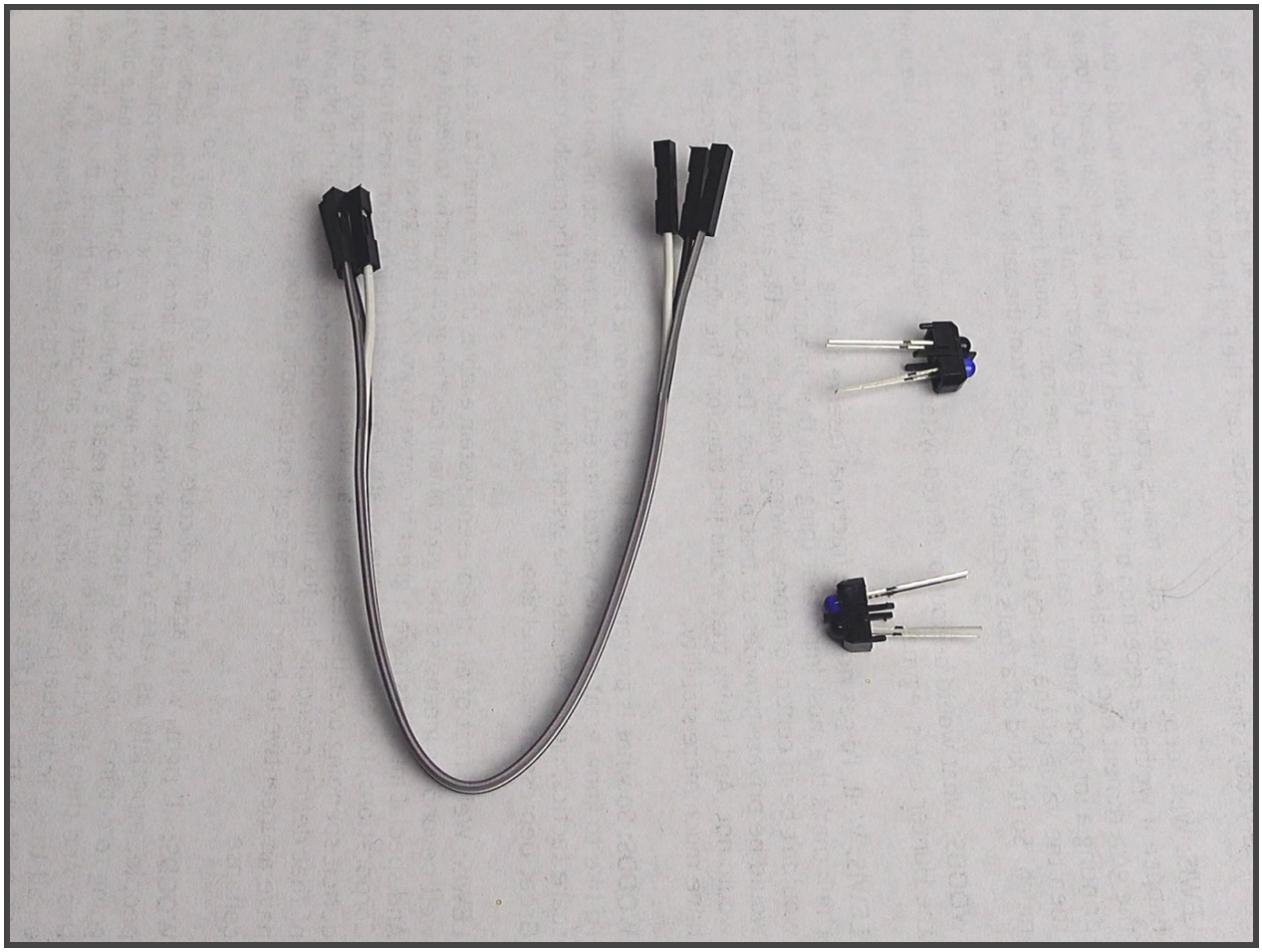
ProtoBot IR Sensor Soldering Guide



You will need:

Parts:

- 2 x IR Sensors
- 1 set of two DuPont Female-Female jumper wires

Tools:

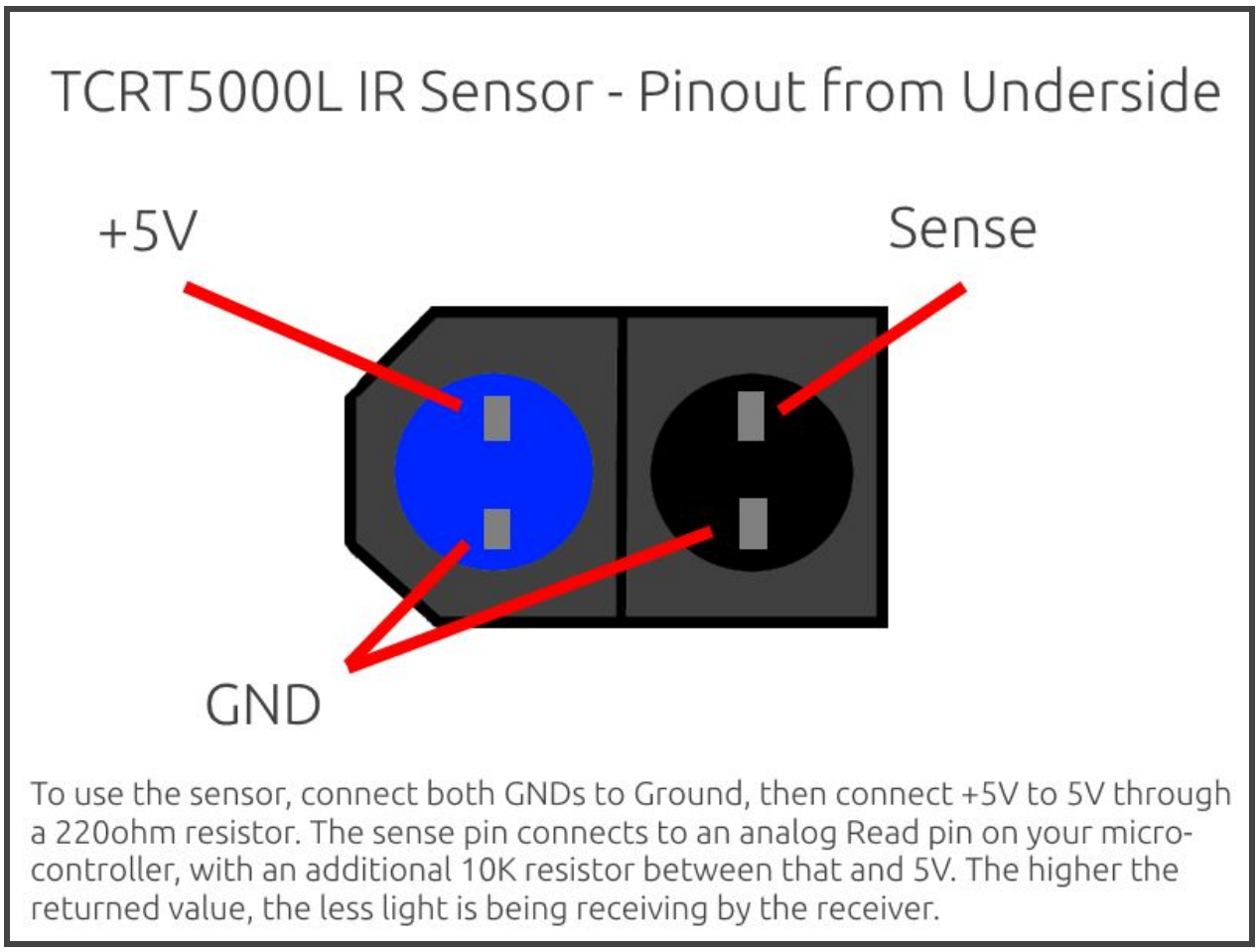
- Wire cutters/Strippers
- Soldering Iron with Fine tip
- Helping Hands, or something to hold the bump sensors in place (I used tape)

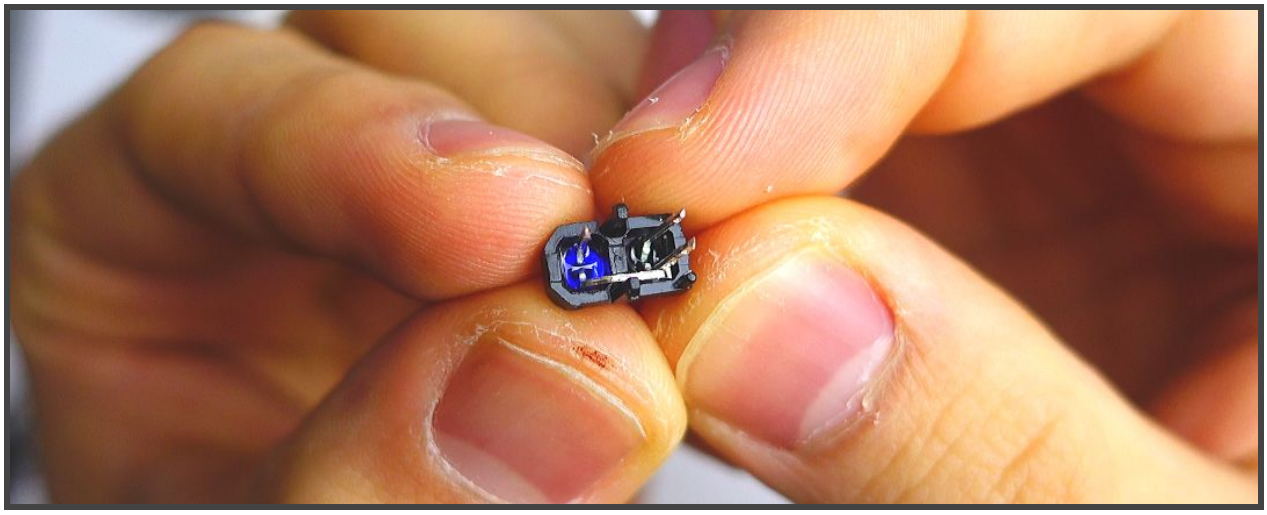
- Use your wire cutters to cut the set of jumper wires in half

- Strip about 5MM or ¼” insulation off the wire ends

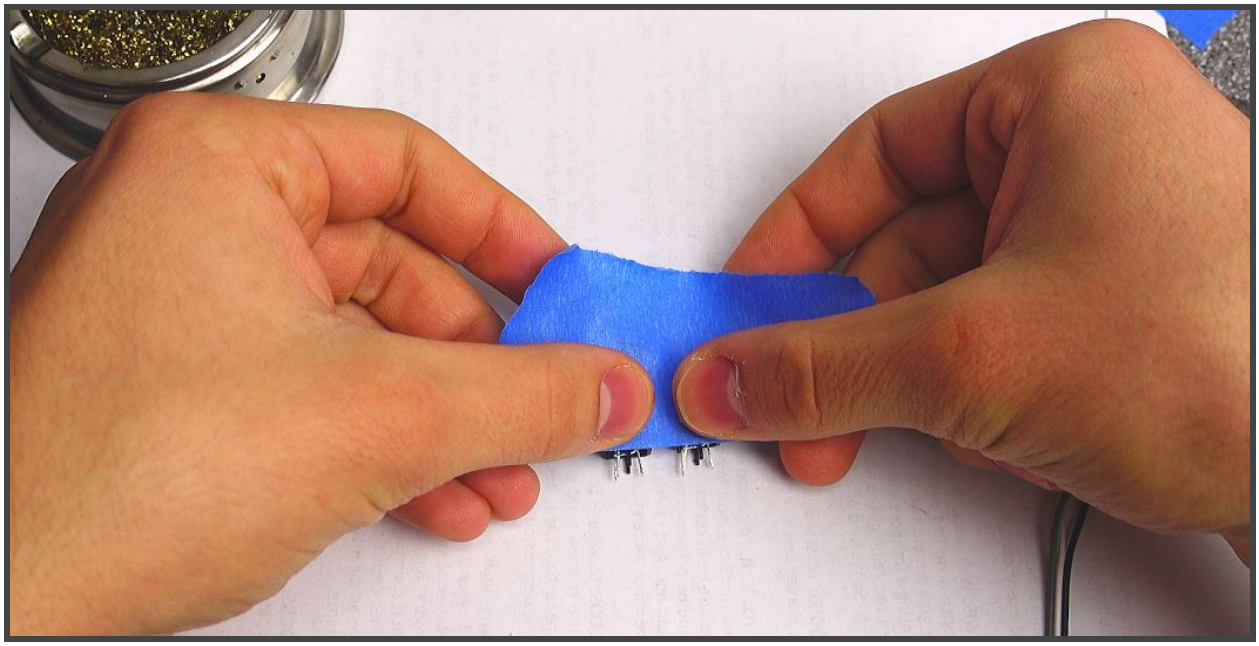
- Tin the wires by holding them on top of the solder, then apply your tinned iron

- Use your wire cutters to cut most of the leads off the IR Sensors, leaving about 5MM or ¼” leads exposed from the plastic sensor body

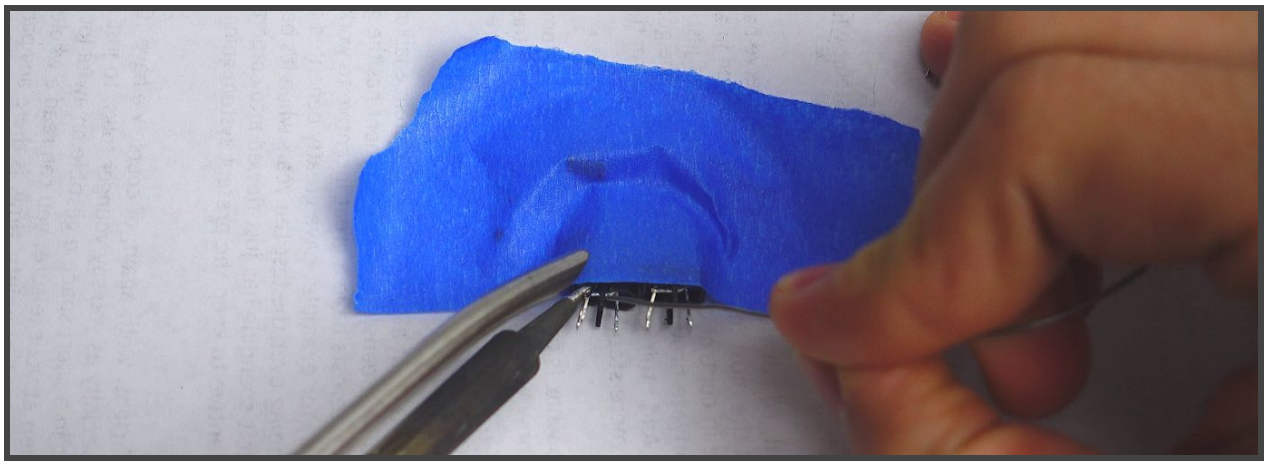


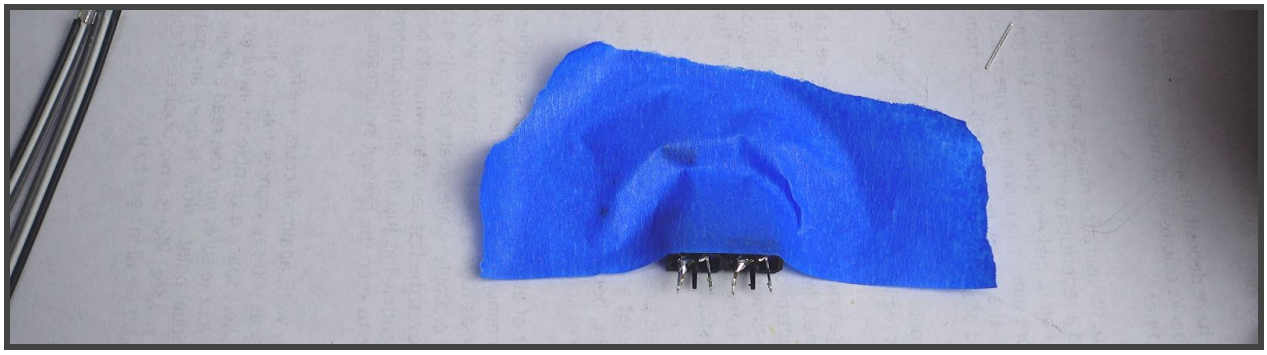


- Orient your sensor as shown in the diagram above
- Bend the GND lead of the blue IR LED over to touch the GND lead on the black receiver LED.



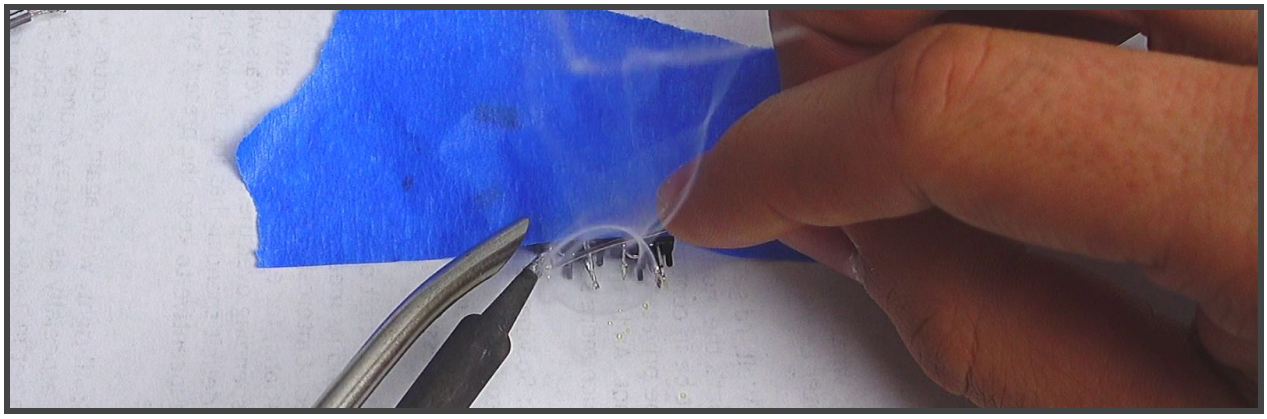
- Secure the IR Sensors somehow



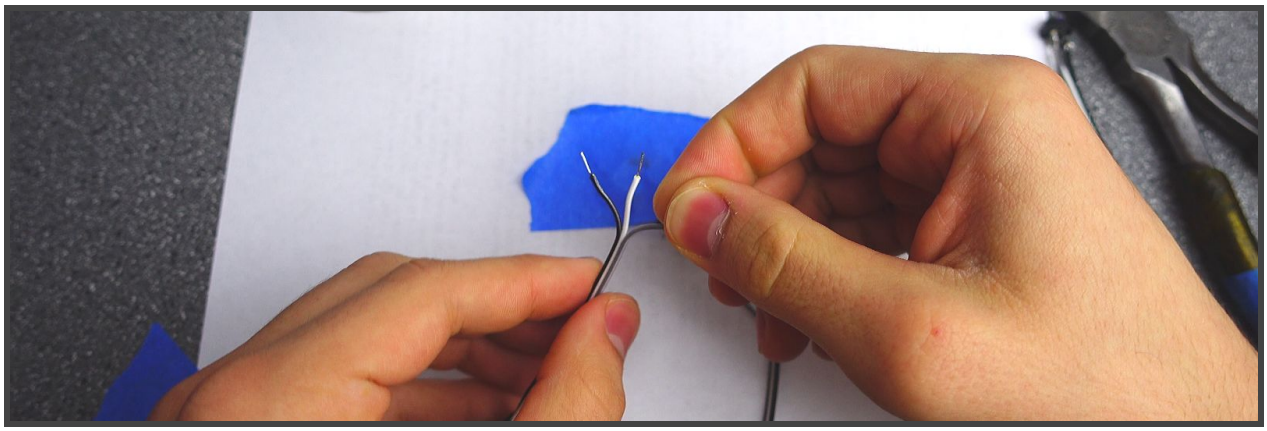


- Solder the GND pins together, so they make a good electrical connections

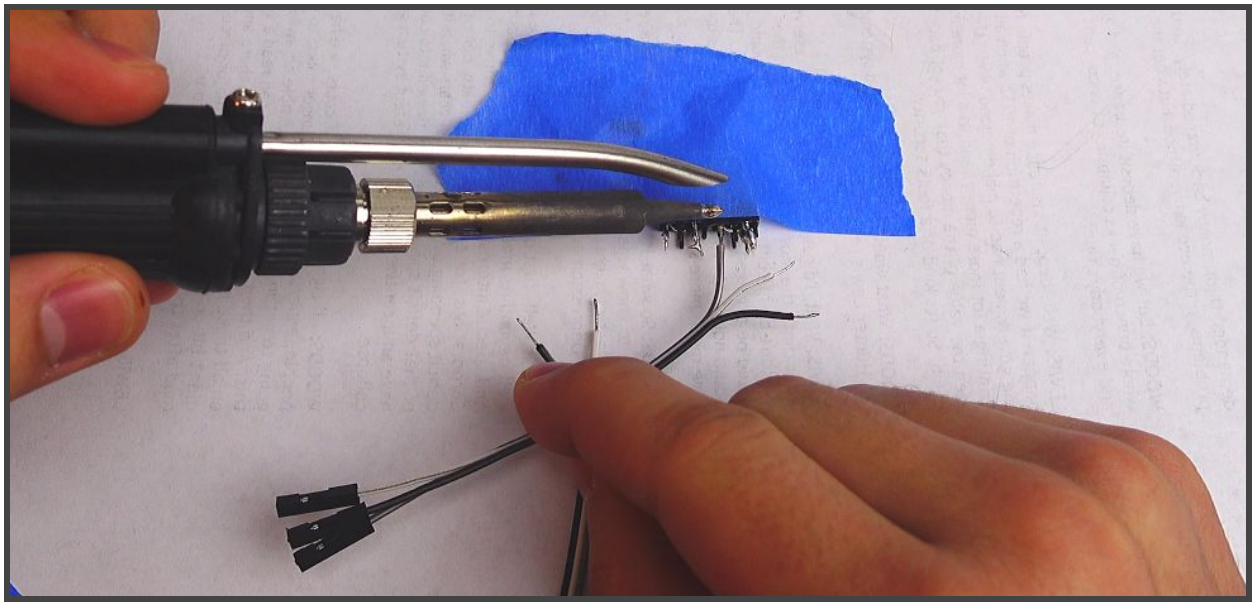
- When you’re done, your sensor should look like this.



- Flip the sensors over, and tin the pins on the opposite side.

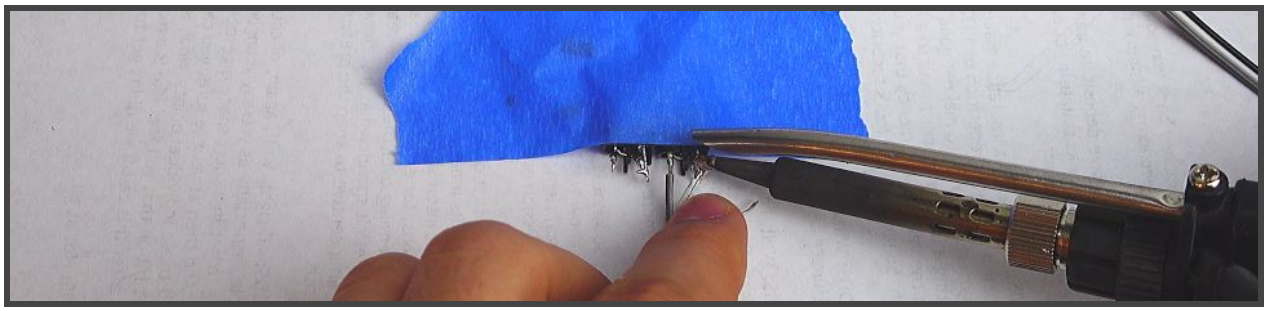


- Seperate the ends of the tinned wires

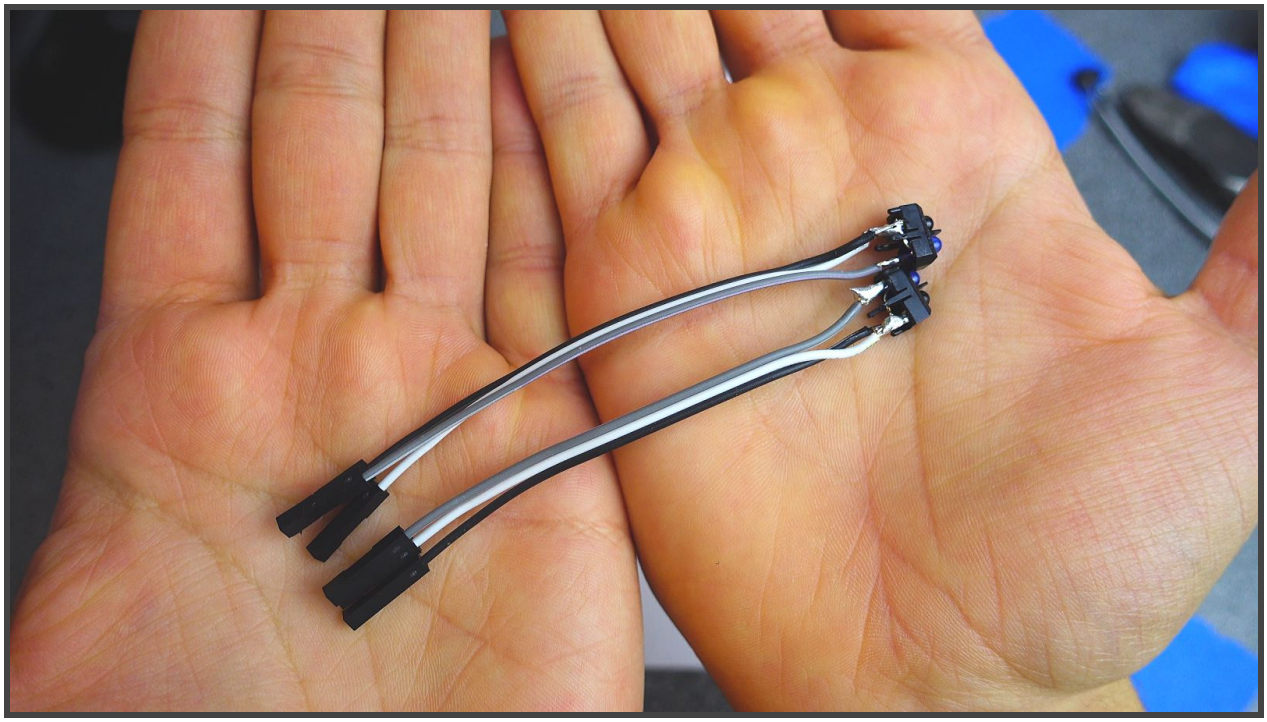


- Beginning with the GND pin, solder the wires to the pins.

Note: Since DuPont wires are randomly colored, it's hard to keep a color convention. I usually try to use the darkest wire on the end as GND, then solder them in order.



- Solder the other two wires, then remove the sensors



Your IR Sensors are ready to use on your ProtoBot!