

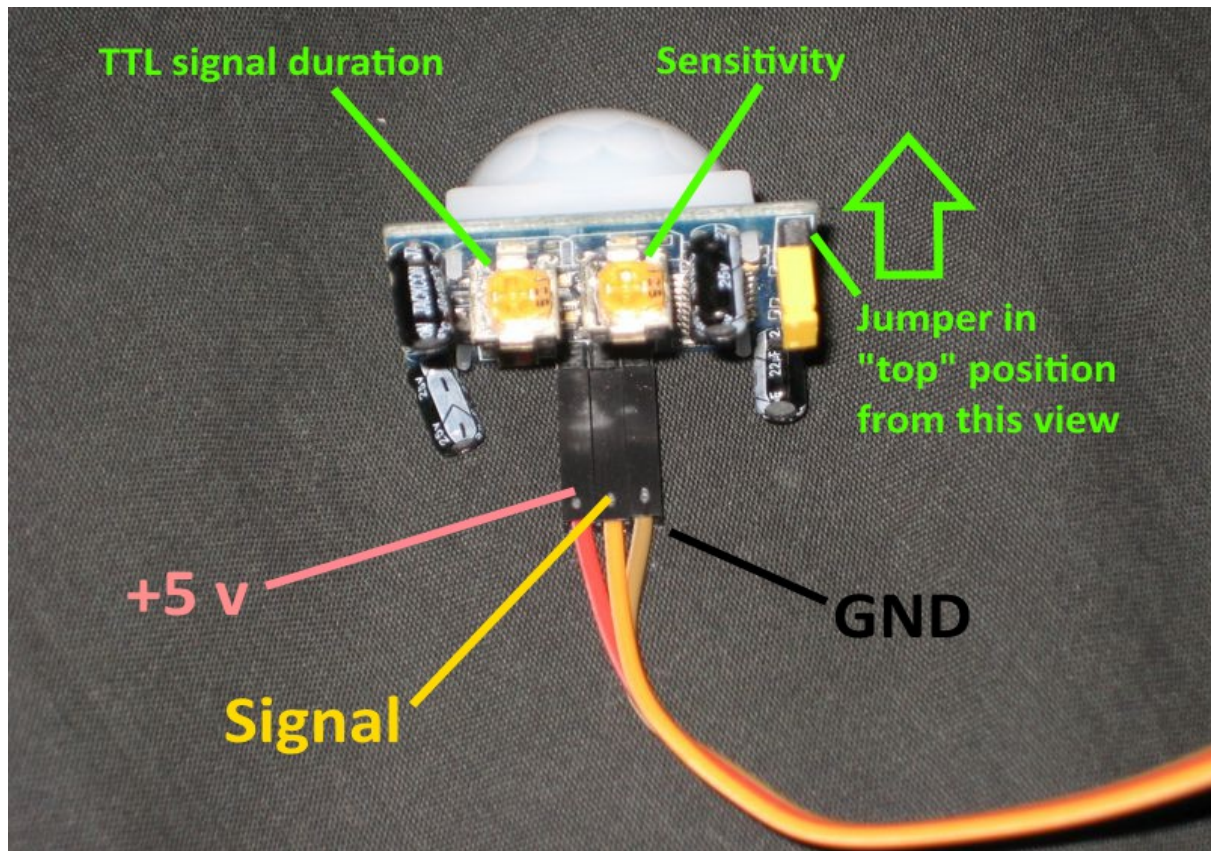
HC-SR501 Infrared PIR Motion Sensor

These great little sensors have dropped in price to be about \$1 if you find them on sale. They output 0v at idle and go TTL high when triggered.



Adjusting the PIR

A properly adjusted PIR will work great. An improperly adjusted PIR will case you headaches. Do yourself a favor and read/understand the following instructions!



This is the PIR I like to use, how I hook it up, and how I adjust it.

From this angle, both trim pots are turned fully counter-clockwise, then turned clockwise approximately 1/16 of a turn. This:

- Makes the detection TTL pulse last about 2 seconds (works great)
- Makes the sensor "least sensitive". If the sensitivity is cranked up too high, a warm breeze can set them off (it gets ridiculous)

Making your PIR even LESS Sensitive

I have found the following trick handy for making PIR sensors of this type a little better for triggering prop controllers. Many people use a piece of PVC or paper tube to achieve a similar effect, but this method is super cheap and keeps the sensor very small. The idea is to create a small tube to place over the sensor (under the dome) to create a sort of blinder. This gives the sensor tunnel vision and will make triggering only occur in a specific zone.

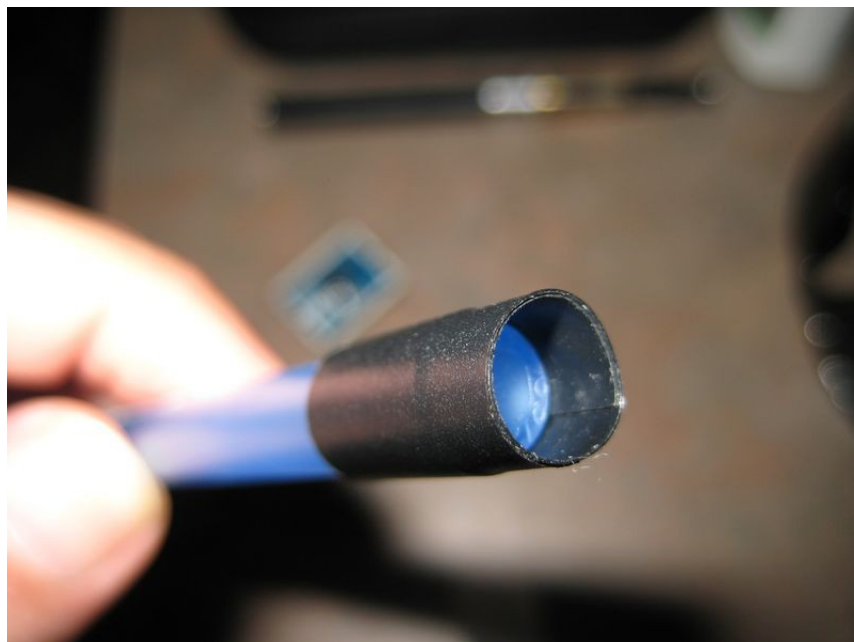
Remove the dome from your PIR sensor.

Cut a piece of electrical tape that is about 2 inches.

Cut a piece of paper that is just smaller than your tape like so:



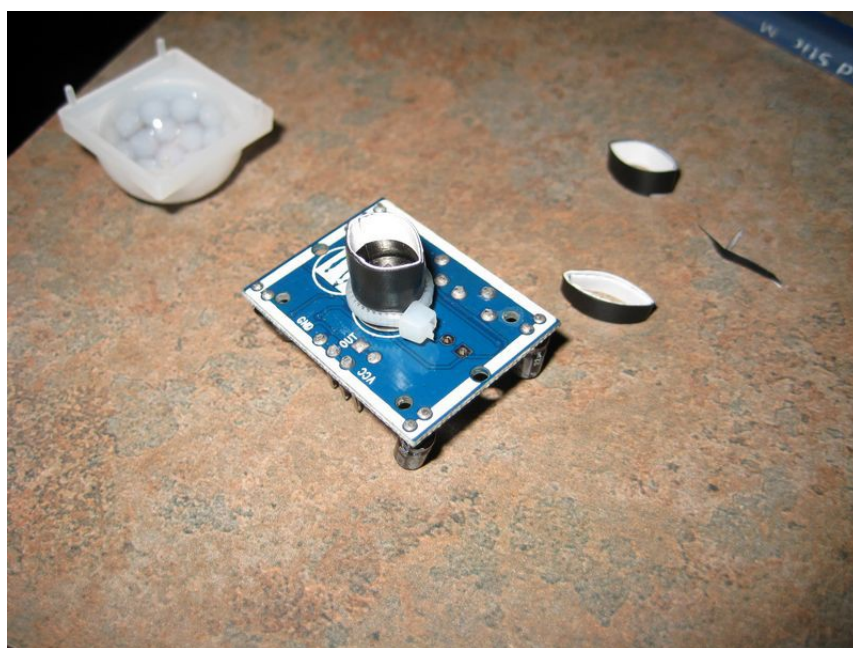
Wrap the tape around the end of a Bic pen, starting with the paper end like so:



Place the new "tape tube" onto the sensor element. Trim with scissors until it is just short enough to fit under the dome.



You may add a small zip strip to keep the "tape tube" in place:



After placing the dome back on, I like to tape the heck out of it. This will:

- Make the sensor less conspicuous
- Keep the dome from falling off
- Keep the adjusted trim pots & electronics from getting bumped
- Help keep the wires attached

