

## Using the Picademy Parts Kit Motion Sensor

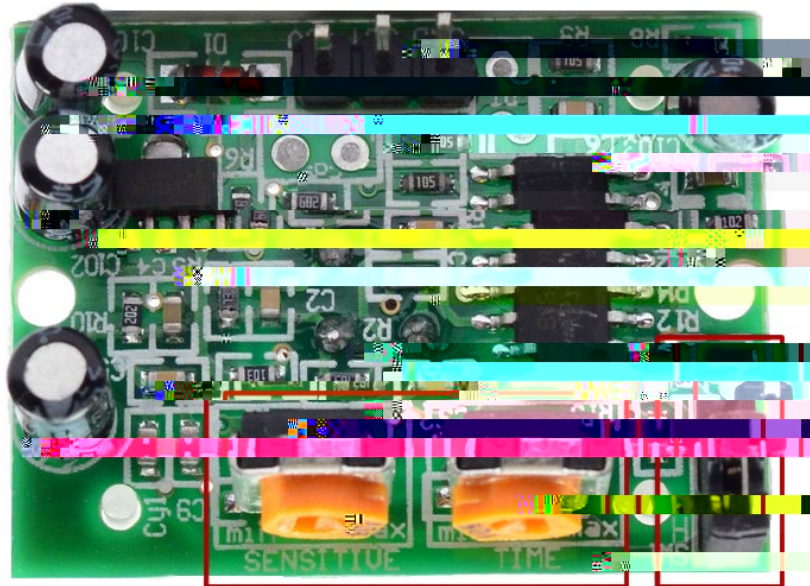
This is a pyroelectric (passive) infrared motion detector of the kind ~~used~~ in burglar alarms, motion-activated lights, and similar things. You could use it to light ~~an~~, but you could also use it with a Pi camera or webcam to take a picture when motion is detected. Or something else.

There are several flavors of ~~the~~ gadget. They look alike, but some are wired differently than others.

The first thing to do is hold the circuit board firmly by the edges and lift the white plastic lens straight up from the board. It's just held there by friction, so give it a tug. Under the lens are three labels that correspond to the pins on the bottom of the board. They are ~~V~~(power), OUT,



Some adjustments are possible that may make the motion sensor more reliable in your



There are three possible adjustments of the motion sensor, two potentiometers and a jumper are on the bottom of the board, the side opposite the lens and detector. You will need a small screwdriver to adjust the potentiometers.

**Retriggering jumper:** The retriggering jumper is on the right side of the board in the picture above. It is shown in the H position. In the L position, output may change from high to low and back as motion is detected. In the H position, shown, the output should remain high while any motion is detected. In most cases the detector works best with the jumper in the H position.

**Sensitivity adjustment:** The sensitivity adjustment does what you think it does, controls the sensitivity of the detector. It is the left potentiometer in the image above. Higher sensitivity should detect motion at greater distances. Turning the potentiometer clockwise increases sensitivity; counterclockwise decreases sensitivity.

**Time adjustment:** The time adjustment potentiometer is located between the sensitivity potentiometer and the retriggering jumper. It controls how long the output remains on when motion is detected. When it is fully counterclockwise the output will remain on for about 2.5 seconds. When fully counterclockwise, output will remain on for up to 250 seconds.

There is a more detailed tutorial about these adjustments [here: https://learn.raspberrypi.org/tutorials/passive-infrared-proximity-motion-sensor?view=all](https://learn.raspberrypi.org/tutorials/passive-infrared-proximity-motion-sensor?view=all)