

Assembly Notes

PIR Motion Sensor Module For Nixie Clock



REVISION HISTORY

Issue Number	Date	Reason for Issue
1	10 February 2015	New Document

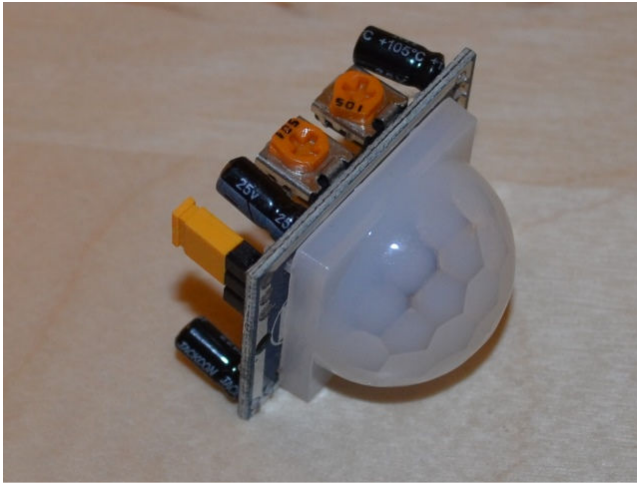
1. PACK CONTENTS

Number	Component	Qty
1	1.5 metre cable	1
2	Module with lens	1
3	Hardware pack	1
4	Plastic case parts	10



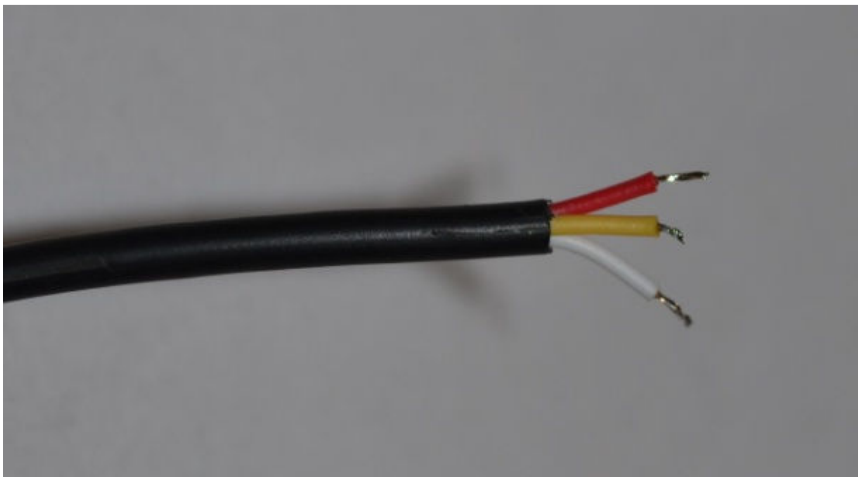
3. SOLDERING THE CABLE TO THE MODULE

3.1 Push the white lens onto the PIR sensor Module.

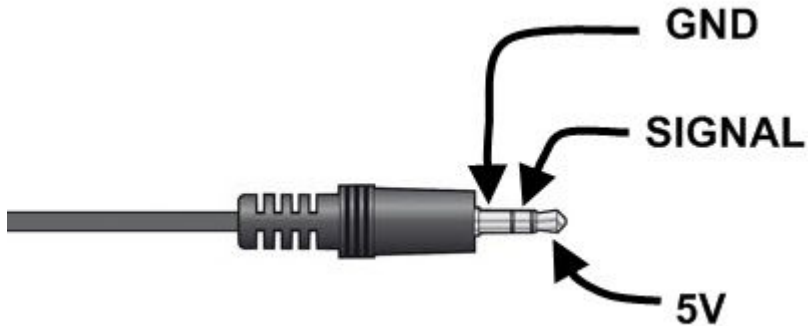


3.2 Strip the black outer insulation from the end of the cable. Then remove the insulation from each of the inner cables to expose 2mm of copper wire.

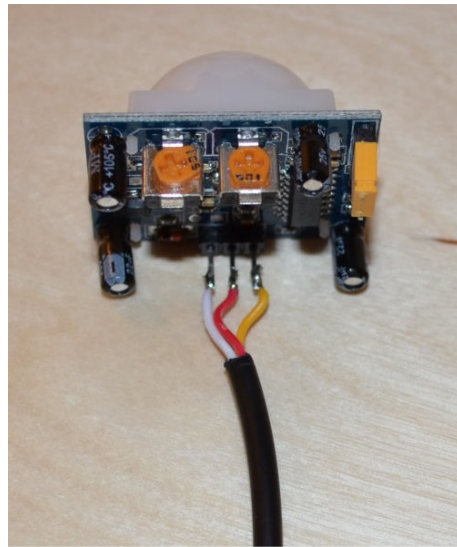
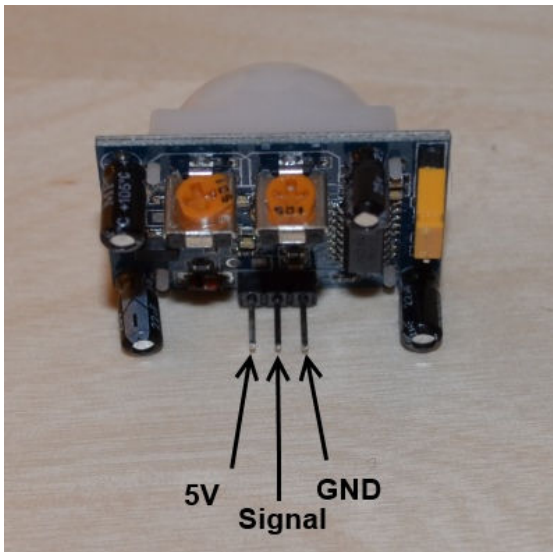
3.3 Tin the end of each of the copper wires.



- 3.3** Using a continuity meter, identify the GND, 5V and Signal wires, and make a note of which colour wire corresponds to each function:

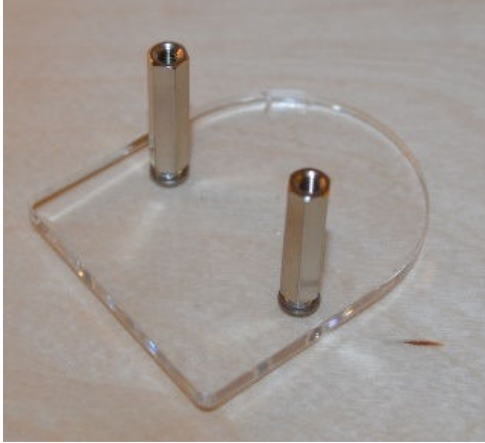


- 3.4** Solder the three wires to the pins on the module as shown below, but do not follow the colours below. Follow the note you made earlier as to which colour corresponds to which function.

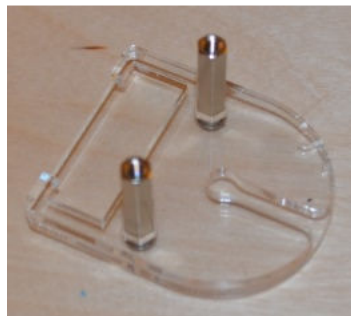
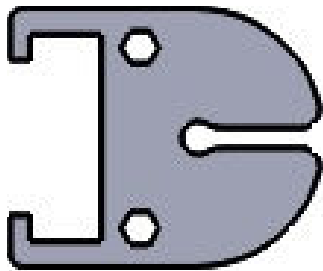


4. ASSEMBLING THE CASE

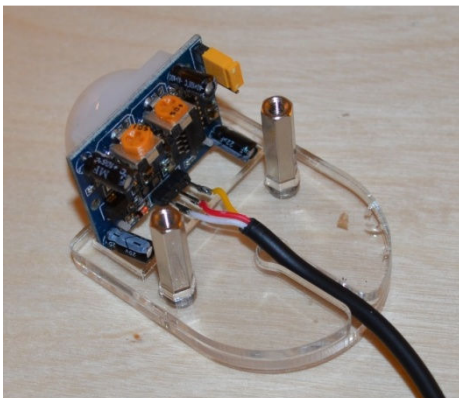
- 4.1** Use the two shorted screws to attach the hex spacers to the base, but leave the spacers loose. Do not tighten the screws.



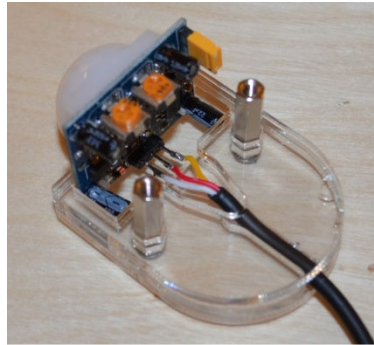
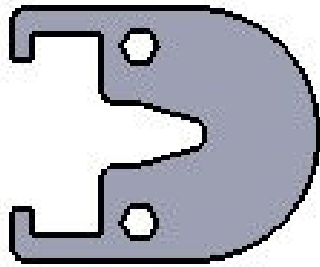
- 4.2** Identify the following part and slide it over the hex spacers:



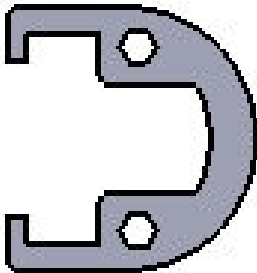
- 4.3** Place the module / cable assembly in place:



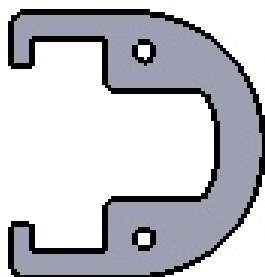
4.4 Identify the following part and slide it over the hex spacers:



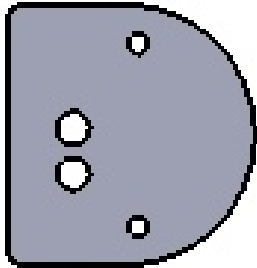
4.5 Identify the the five parts as follows and slide them over the hex spacers:



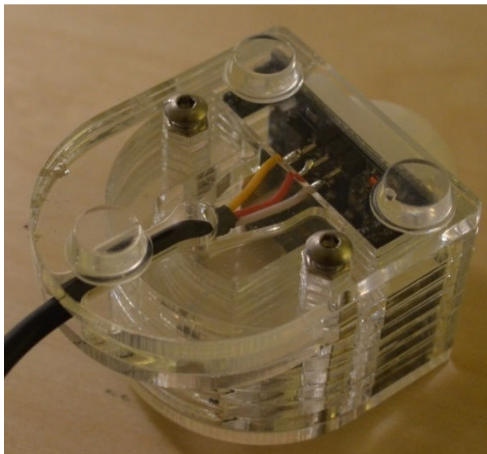
4.6 Identify the following part and place it at the top of the hex spacers:



- 4.7** Identify the following part. Later versions of the module will only have the one large hole. Place the part so that either both (early versions) or just the central (later version) trimmer on the module is accessible. Access is only required for the central trimmer.



Then secure with the two longer screws. Also now tighten the bottom screws. Stick the 3 rubber feet on the bottom of the unit as shown below:



5. ADJUSTING AND USING THE MODULE

- 5.1** Refer to the manual for your clock to find the appropriate configuration settings to enable the module, and set the PIR time period.

- 5.2** The central adjustment trimmer can be used to set the sensitivity, therefore the operating range of the module:

Turn CLOCKWISE – higher sensitivity

Turn ANTICLOCKWISE – lower sensitivity

- 5.3** The other adjustment trimmer has no function.

PIR LED

This is how you do it:

Connect and solder the long lead or Anode of the LED to the Data out or center pin of the PIR. The other lead is soldered to the Ground pin. Bend the leads at right angles per the image below so that the LED lens is pointed hard right and the hat extends just to the outer edge of the PIR PCB. I suggest the use of a 3mm flat top wide angle LED. These seem to illuminate the acrylic layers nicely so that the light is visible from the front. LED will stay lit as long as PIR is activated per duration pot. Adjustment on top. LED's can be provided with the purchase of a PIR from Badnixie.com at no additional charge

