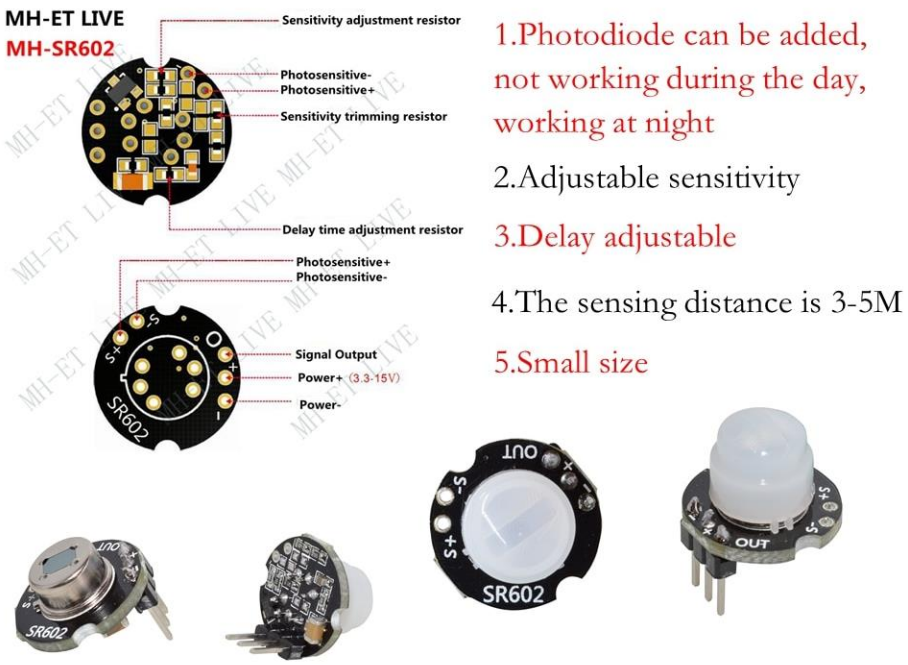
SR-602 Pyroelectric Human Infrared Sensor Module Instructions.



Working parameters:

- Pyroelectric human body infrared sensor module, model: SR-602
- Sensing distance: up to 5 meters; recommended 0-3.5M.
- Output: high level, H=3.3V, L=0V
- Power supply DC: 3.3V-15V
- Quiescent current: 20uA

Features and uses:

This module has high sensitivity, fast response, small static power consumption, small size, easy to install, and is installed.

The lens, the pin header has been soldered, and the power supply is provided without debugging. Can be used for body sensor lights, alarms, security,

Access control on-demand imaging, automatic equipment for agriculture, forestry and mining.

Key points:

1. The high-level time of the output of this product is adjustable, 2.5 seconds to 1 hour, the output time set at the factory.

It is 2.5 seconds, and you can change one chip resistor if you need to change it. Please read the resistance value corresponding to the typical delay time.

Refer to the relevant form below.

2. Blocking time, 2 seconds, not adjustable.

3. The factory is defined as repeatable trigger and cannot be changed.

4. The supply voltage of this module is 3.3V to 15V, and the limit voltage is 2.8V to 18V.

5. Module output timing is: output high level for 2 seconds after power-on, then go low, enter standby

status. If the delay time is changed, the time when the module outputs a high level after power-on will increase accordingly, which can be understood as

The startup time after entering the normal working state after the electric power will increase.

6. After installing the photosensitive element, it does not work during the day, work at night, does not contain photosensitive components, and works all day (There are no photodiodes on the module, please purchase separately if needed. Recommended: ordinary F3 photodiode)

It is considered that there is no photosensitive element installed.

7. This module is very sensitive, pay attention to the installation position, try to avoid the heat source radiation source (air outlet / direct sunlight)

8. The sensitivity of this module is adjustable, and you need to change a chip resistor. Please read the relevant table below for details.

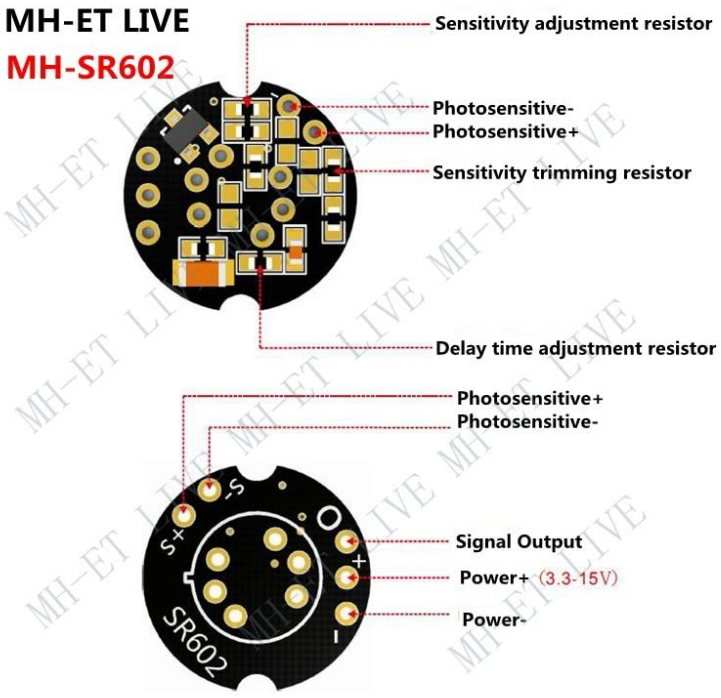
9. When soldering with 220V ordinary soldering iron, it is necessary to unplug the power supply before welding. It is recommended to use 24V low voltage soldering iron, such as domestic white light 936.

10. If you follow the MCU and connect the lamp, please read the reference circuit diagram below.

A: lens diameter 10 mm;
B: the lens height is 10 mm;
C: the thickness of the circuit board is 1.6 mm;
D: the overall height of the pin header is 8mm;
E: the height of the pin plastic step is 2mm;

F: photosensitive element pad pitch 2.54mm;
G: the pin spacing of the power input and signal output is 2.54mm;
R: the board has a radius of 8 mm;
R1: the positioning groove radius is 1.5mm;
R2: symmetric positioning groove spacing 13.5mm;

Function and interface description



Delay time adjustment instructions

This module can achieve different delays by changing the delay time to adjust the resistance of the resistor Time Corresponding reference value (package requirement: 0603):

Delay adjustment RL (ohm) (1%)	Delay Time (s)
0 (Default)	2.5
22k	5
39k	8
56k	11
75k	19
91k	35
120k	56
130k	67
154k	130
174k	265
196k	390
221k	522
243k	1050
267k	2095
294k	3150
316M	4200

The default delay of this module is 2.5s. The above table is the data measured by the laboratory and has one. The specified error is only a reference for the debug time range. If you need to change the delay time, please combine, In the actual use case, select the appropriate parameters after debugging the specific circuit.

Test and application reference circuit