

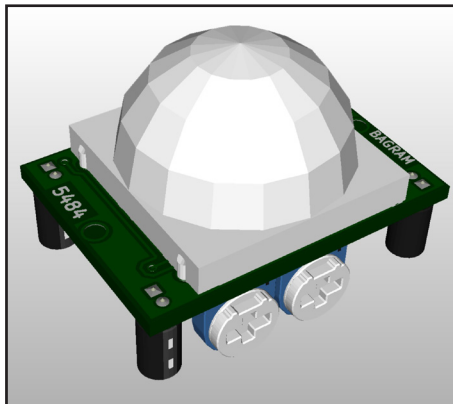
Professional Motion Sensor 12V CRN-5484

CRN-5480 is a professional motion sensor for 12V voltage for applications as a device that triggers controllers when motion of an object is detected. The sensor is cooperating with lighting controllers for stairs. The sensor detects objects emitting infrared (heat) radiation, such as people or animals. The sensor sends a fixed-length pulse (about 5 sec) after motion detection. The pulse has a negative level and can be connected directly to the controller input.

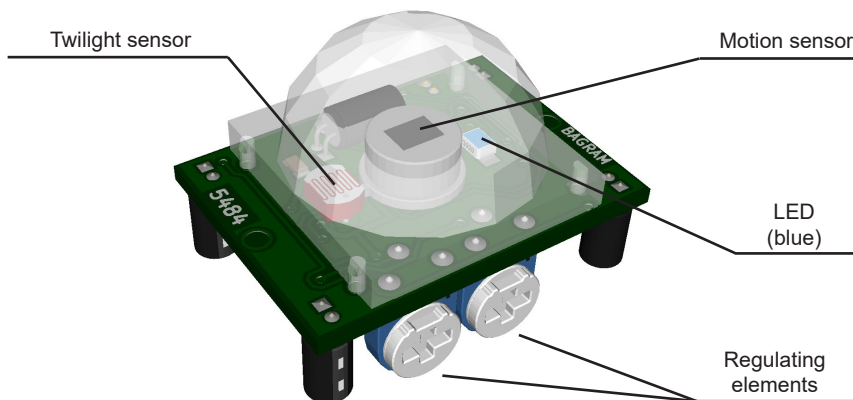
The sensor has a small, green LED diode that indicates the sensor's operation. The diode lights up for the pulse time. The diode can be used to mount and adjust the sensor.

The sensor's operating voltage is from 5 to 20V and thus it can work without any problems at 12V, which is most often available when powering LED strips.

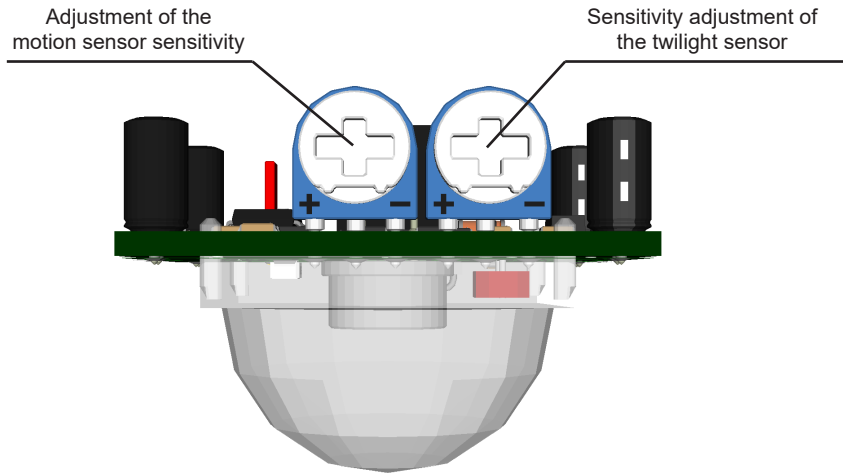
An additional feature of the sensor is the twilight sensor system. The sensitivity of the twilight sensor can be adjusted, and in the extreme position of the control element - completely switched off. Note: Twilight sensor only immobilizes the sensor. When the twilight sensor is switched on, with sufficiently bright lighting, the sensor stops sending pulses to the controller. It does not turn off the controller itself!



Elementy czujnika



The motion sensor has two control elements: the sensitivity of the motion sensor and the sensitivity of the twilight sensor. The sensor is supplied with control elements set in the output positions: for the motion sensor it is the maximum sensitivity, and for the twilight sensor the switch-off state (twilight sensor does not work then). The position of the adjustment elements should be carefully changed. In case of problems, please adjust the adjustment elements in the starting position.



Sensor view from the side of control elements

Motion sensor

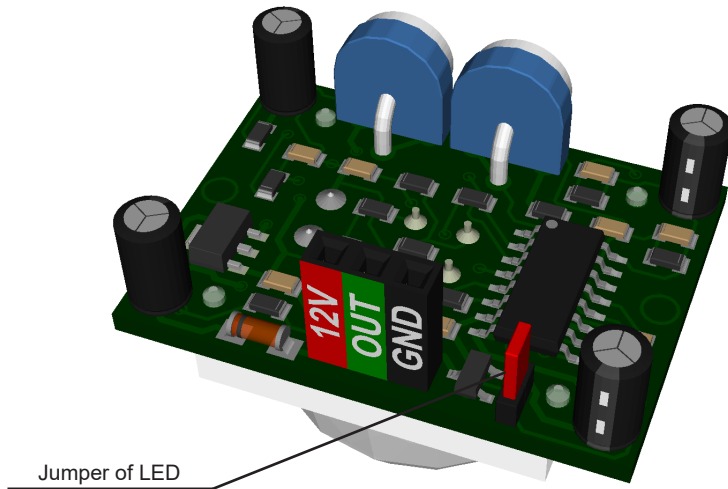
By turning the knob (potentiometer) of the motion sensor sensitivity counterclockwise (to the left) we increase the sensitivity of the sensor, and in the clockwise direction (to the right) we decrease the sensitivity.

Twilight sensor

Turning the knob (potentiometer) of the twilight sensor sensitivity counterclockwise (to the left) increases the sensitivity of the sensor, and in the clockwise direction (to the right) we decrease the sensitivity - until the sensor turns off in the rightmost position.

Jumper of the LED

On the sensor board, there is also a jumper for the LED diode. In the illustration the jumper is in red - in fact it is black. Removing the jumper turns off the diode. Please keep the jumper in case you need to turn on the diode - you must put the jumper on two pins in the sensor.

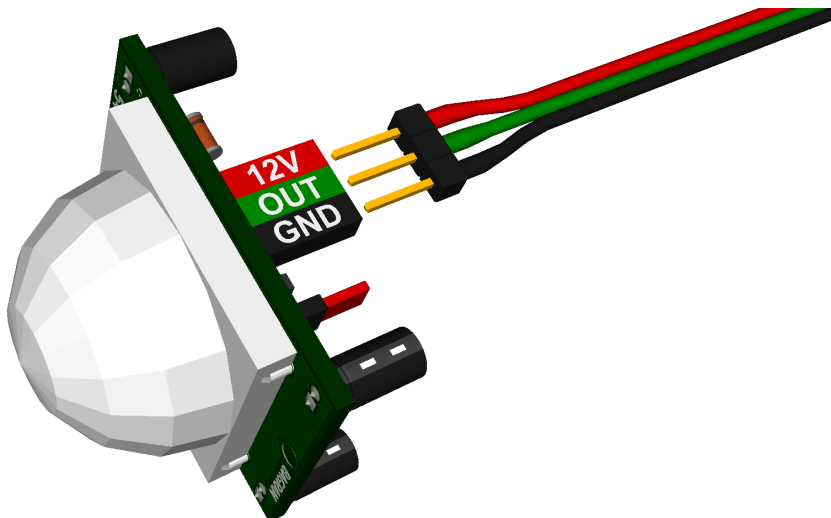


Connecting the sensor

The sensor has three contacts. Make sure to connect the power supply and controller input with great attention. Misconnection of the power supply or controller input will damage both devices!

Plug wires from the controller: + 12V power supply, signal cable connected to the controller input and minus 12V power supply (GND) to the soldered plug. The connection should be made as described on the socket mounted on the sensor.

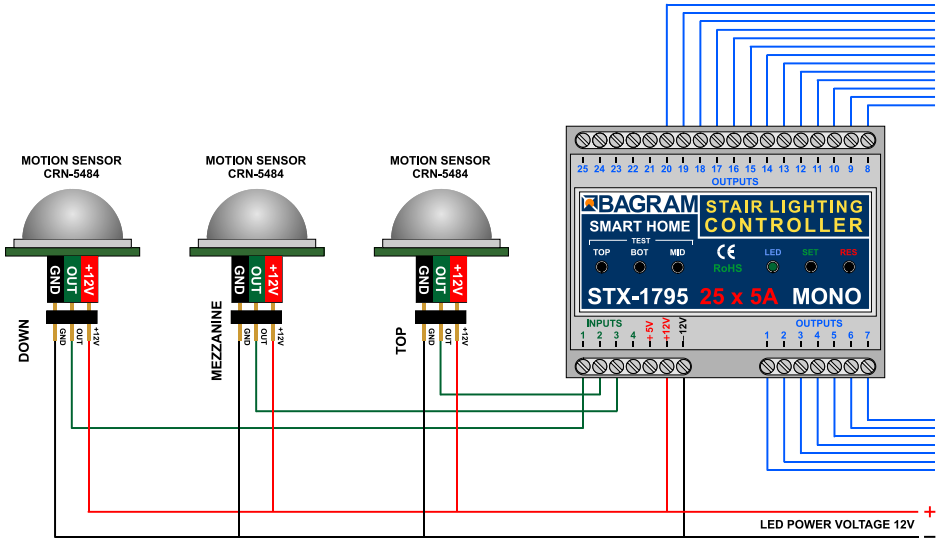
WARNING! Reverse connection of the plug will damage the sensor!



It is now necessary to mount the sensor in the correct position and, experimenting, set the sensitivity knob so that the sensor switches on the controller at the right moment when the person enters the stairs.

It may be necessary to partially expose the sensor bowl so that it does not react to people passing by the stairs. It is best to remove the sensor's canopy and stick it partly from the inside using a white installation tape, so that the sensor does not react to people passing by or to protect it from other light that may interfere with its operation.

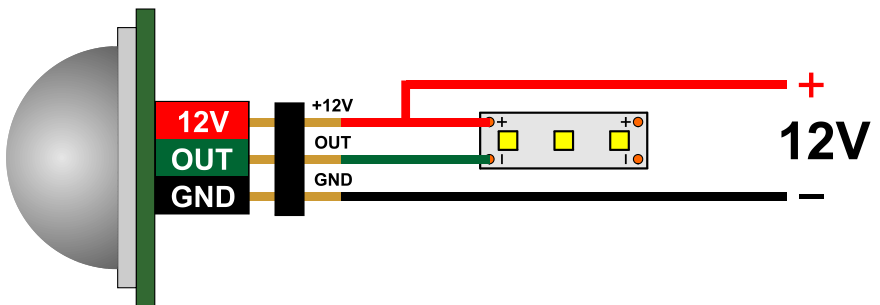
Please remember about the so-called sensor dead time is about 2.5 seconds, i.e. time after sending a pulse, in which the sensor does not respond to the person.



Connection of CRN-5484 sensors to the controller - on the example of the STX-1795 controller

Motion sensor tester

If there are any doubts as to the proper operation of the sensor, the sensor testing system shown below can be soldered.



Motion sensor tester

NOTE: Only one section of the LED strip should be connected (cut from a longer strip)

Dimensions of the motion sensor (in mm)

