DYNAMIC SOLUTIONS

Jounieh, International Highway
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PIR Motion Sensor Detector HC-SR501

Features:

The HC-SR501 is a pyroelectric infrared motion sensor module that detects human movement using dual infrared probes and a Fresnel lens. It features a high-sensitivity BISS0001 chip, operates on a wide voltage range (4.5–20 V DC), and supports both repeatable and non-repeatable triggering modes. The sensor includes configurable delay and block times, low power consumption, and stable performance, making it ideal for battery-powered automatic control systems such as lighting, alarms, and industrial automation.

Specifications	
Model	HC-SR501
Sensor Type	Pyroelectric Infrared (PIR)
Detection Method	Dual IR probe + Fresnel lens
Operating Voltage	DC 4.5–20 V
Quiescent Current	< 50 µA
Output Level	High: 3.3 V, Low: 0 V
Trigger Modes	L: Non-repeatable, H: Repeatable (default)
Sensing Range	<= 7 m
Detection Angle	<= 110° cone angle
Delay Time	Adjustable (default 5 s, range 0.3 s – tens of seconds)
Block Time	2.5 s (default, adjustable)
Board Dimensions	32 mm × 24 mm
Mounting Hole Distance	28 mm (M2)
Lens Diameter	23 mm
Operating Temperature	-15 °C to +70 °C
Initialization Time	~60 seconds
Use Cases	Automatic lighting, security alarms, smart home triggers, industrial automation

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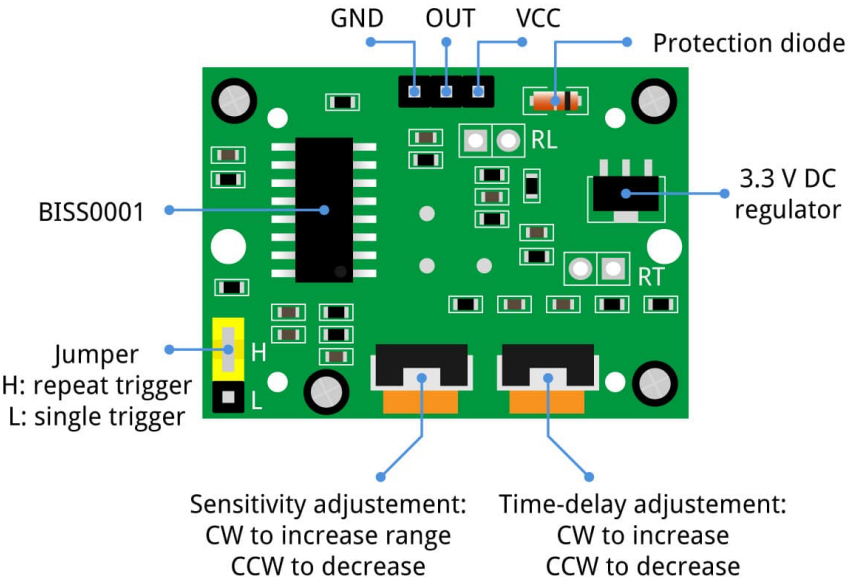
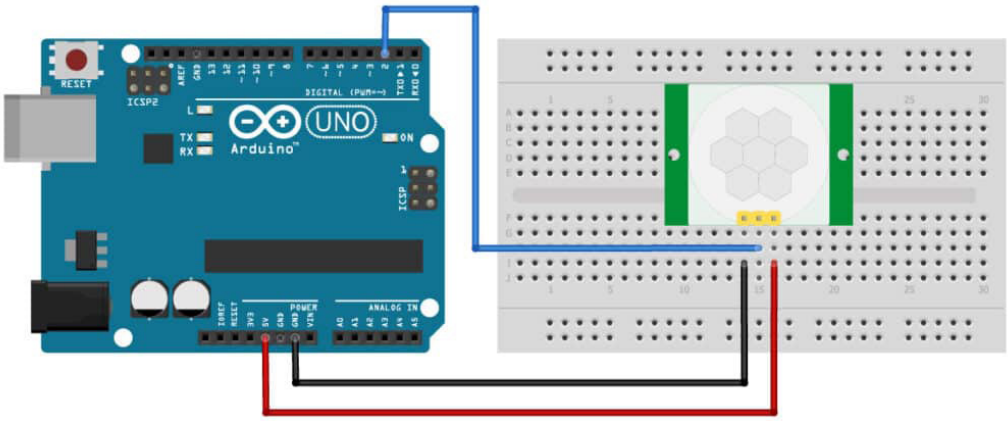
Pinouts:

Pin Name	Type	Description
VCC	Power Input	Power supply input (4.5–20 V DC)
OUT	Output	Output signal: High (3.3 V) when motion detected, otherwise Low (0 V)
GND	Power Ground	Common ground





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Product Pictures: