



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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IR Break Beam Sensor - 5mm LEDs

PRODUCT ID: 2168

Infrared (IR) break-beam sensors are a simple way to detect motion. They work by having an emitter side that sends out a beam of human-invisible IR light, then a receiver across the way which is sensitive to that same light. When something passes between the two, and its not transparent to IR, then the 'beam is broken' and the receiver will let you know.

Compared to PIR sensors, breakbeams are faster and allow better control of where you want to detect the motion. Compared to Sonar modules, they're less expensive. However, you do need both emitter and receiver on opposite sides of the area you want to monitor.

This is the 5mm IR version. It works up to 50cm / 20". You can power it from 3.3V or 5V, but 5V will get you better range and is what we suggest. The receiver is *open collector transistor output* which means that you do need a pull up resistor if you want to read a digital signal off the signal wire. Most microcontrollers have the ability to turn on a built in pull up resistor. If you do not, connect a 10K resistor between the white wire of the receiver and the red wire. If you want to control a relay or LED or whatever, it can sink up to 100mA to ground

Check out our IR breakbeam tutorial for how to get started quickly

Technical Details

- Sensing Distance: Approx 50cm / 20"
- Power Voltage: 3.3 - 5.5VDC
- Emitter Current Draw: 10mA @ 3.3V, 20mA @ 5V
- Output Current Capability of receiver: 100mA sink
- Transmitter/Receiver LED Angle: 10°
- Response Time: <2 ms
- Dimensions: 20mm x 10mm x 8mm / 0.8" x 0.4" x 0.3"
- Cable Length: 250mm / 10"
- Weight (of each half): 3g
- Datasheet

