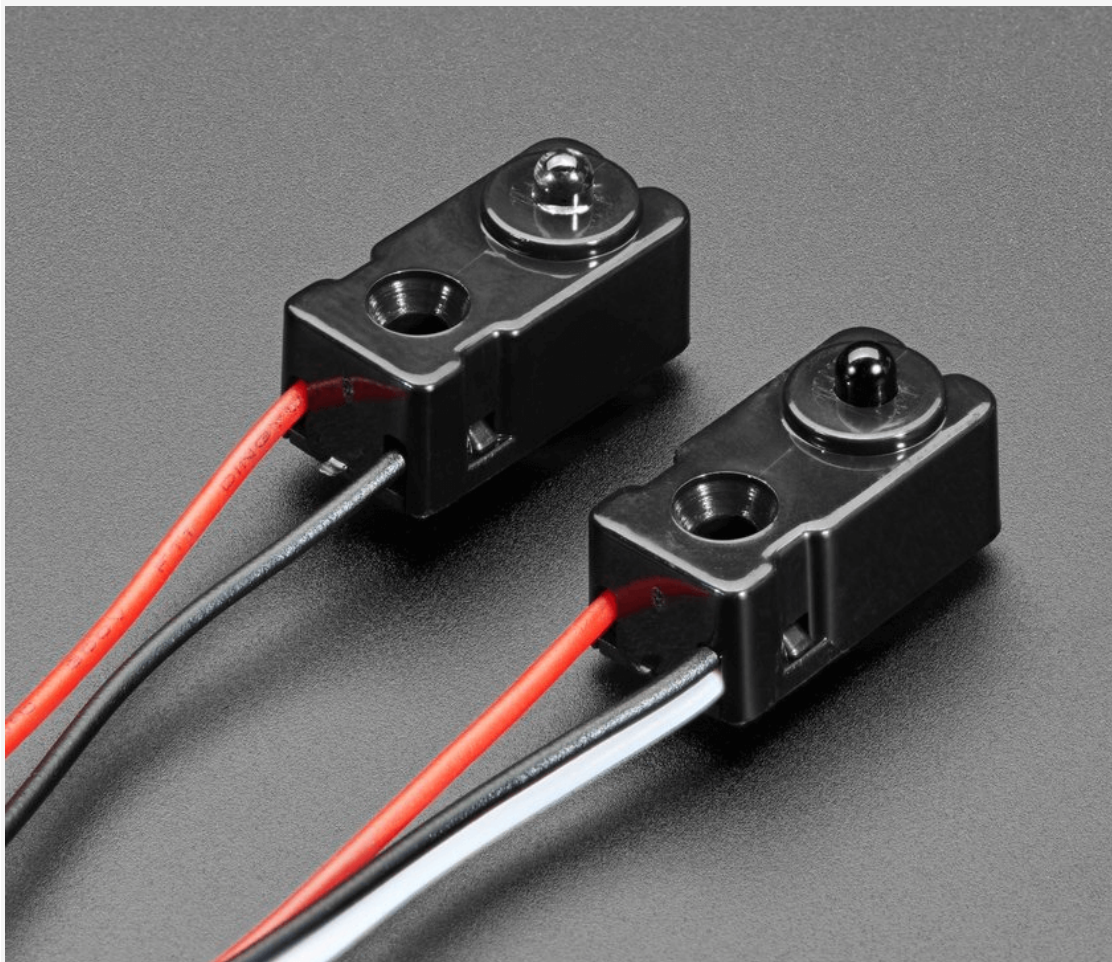


INTRODUCTION

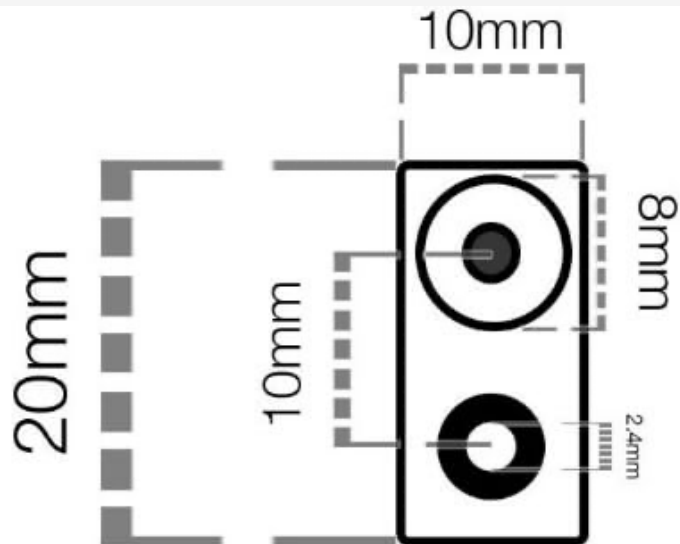
Infrared break-beam sensors are a simple way to **detect motion**.

This IR break beam sensor works up to 50cm with a fast and stable response of $<2\text{ms}$. With a small size of $20 \times 10 \times 9\text{mm}$, the module can be conveniently installed in a narrow space. Besides, it can operate within a temperature of -25°C to 60°C .

Power the sensor by a voltage of DC $3.0\sim 5\text{V}$. It can be used with Arduino for some simple motion detection, speed detection, timing, etc. in smart robot competitions.



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 it's not transparent to IR, then the "beam is broken" and the receiver will output a signal to let you know.



FEATURES

- Fast and stable response speed
- Can be conveniently installed in a narrow space

APPLICATIONS

- Simple motion detection
- Speed detection
- Timing

SPECIFICATION

- Induction Distance: 50CM / (5V), 20CM / (3.3V)
- Induction Method: through-beam type (non-transparent)
- Working Voltage: DC 3.0 V-5V
- Working Current: 25mA
- Output Mode: NPN normally open
- Output Current: 100mA (can directly drive the relay)
- Emitting Angle: straight line (infrared light)
- Receiving Angle: $<10^\circ$
- Response Time: 2ms
- Working Temperature: $-25^\circ\text{C} \sim 60^\circ\text{C}$
- Working Environment: indoor (not waterproof)
- Dimensions: 20*10*9mm (L*W*H)
- Cable Length: 25cm / 9.84 inch
- Light Hole: 3MM / 0.12 inch
- Transmitter: red wire=5V DC, black wire=GND
- Receiving: red wire =5V DC, black wire=GND, white wire=OUT (NPN)

SHIPPING LIST

- IR Break Beam Sensor (50cm) - Receiver x1
- IR Break Beam Sensor (50cm) - Transmitter x1