MitchElectronics Ltd.

IR SENSE

Electronic Kit | Data Sheet

PRODUCT IMAGE	SCAN FOR INSTRUCTIONS PAGE	SCAN FOR RESOURCE PAGE
		

MANUFACTURER	MitchElectronics
COUNTRY OF ORIGIN	United Kingdom
ROHS / REACH COMPLIANT	Yes
PRODUCT DESCRIPTION	The IR Sense is a self-build DIY electronics kit that includes everything needed to detect IR signals. Powered from voltages between 3V and 12V, the IR Sense has two outputs; one digital and one analogue. The digital output is connected to the output of the onboard comparator that produces either a logical 1 or 0 depending on the presence of IR light, and the IR Sense potentiometer is used to determine the sensitivity of the switch. The analogue output is a voltage that is proportional to the amount of IR light falling onto the IR sensor, and this can be useful for measuring distances. While the board comes with components suitable for most applications, it is perfectly possible to change the components to adjust its operation. For example, changing the size of the IR series resistor can increase the sensitivity of the IR sensor.

PRODUCT SPECIFICATION:

- Component Count: 7
- Operating Voltage: 3V to 12V
- Output Voltage (Digital): VCC – 1.7V
- Operating Frequency: N/A
- Dimensions (PCB): 40mm x 20mm
- Mounting Holes: Yes
- Prebuilt: No – Kit form
- Batteries Not Included

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PARTS INCLUDED:

- 1 x LM358
- 1 x 8 DIP Socket
- 1 x IR Sensor
- 1 x 1KΩ Resistor
- 1 x 100nF Capacitor
- 1 x 10KΩ Potentiometer
- 1 x 4-Way Socket

APPLICATIONS

The IR Sense can be used in projects that need to detect the presence of IR light, including robot line followers, remote control detectors, and proximity detectors. The IR Sense can also be used as a sunlight detector, as sunlight naturally gives off IR light. For applications that need to detect rapid changes in IR light (but want sunlight immunity), a capacitor in series with the analogue output can block steady changes in ambient IR readings.

Generally speaking, this kit will be used in conjunction with an IR source. For those looking for a range detector, the IR Range Sense provides makers with an excellent alternative to the IR Sense.

KIT INSTRUCTIONS

https://mitchelectronics.co.uk/resources/ir-sense-kit-instructions/

ELECTRONICS CONSTRUCTION MANUAL

https://www.mitchelectronics.co.uk/documents/electronicsConstructionManual.pdf

NOTES

Note that product specifics such as output frequency depend on the tolerance of the components. The numbers provided here are an approximation only. Also take note that the estimated delivery is not guaranteed (unless special delivery is chosen) and free delivery has a maximum waiting time of two weeks. Any product that is returned which is built using lead solder is ineligible for a refund.

All parts sold by MitchElectronics are compliant with RoHS and REACH directives which ensure that they can be used in commercial environments as well as complying with environmental laws.