**LIGHT SENSORS**

**CdS PHOTOCELLS – PHOTO RESISTORS**

Light dependent Cadmium sulfide resistors. Plastic coated resistors on ceramic, 0.2-0.25" dia. Light & dark resistances are approximate.

2MΩ Dark – 60KΩ Light
CAT# PRE-24 $1.25 each
10 for $1.10 each

30K Dark – 1.5K Light
CAT# PRE-25 95¢ each
10 for 85¢ each • 100 for 70¢ each

1MΩ Dark – 180Ω Light
CAT# PRE-27 95¢ each
10 for 85¢ each • 100 for 70¢ each

Arduino-style module. Approximately 100Ω light, 10KΩ dark resistance. 0.60" x 0.75" pc board with 3-pin output, 0.10" spacing.
CAT# SE-12 $2.40 each

**PHOTO DETECTOR**

Photonic Detectors Inc # 1541-80A
Miniature photovoltaic cell in a 5mm diameter LED-type package. 0.53Vdc.
CAT# PD-8 $3.95 each
3 for 99¢

**INFRARED SENSORS**

**INFRARED MOTION DETECTOR MODULE**

Mini-passive infrared motion detection module (PIR). Senses changes in infrared heat patterns. 3-pin configuration ideal for use with Arduino / RaspberryPi / Adafruit microcontrollers. Lens diameter, 14mm. Overall length, excluding pins, 19mm.
CAT# PIR-12 $3.75 each

**IR RECEIVER MODULE**

Simple IR receiver module used to read infrared light value. Can be used to communicate with our IR transmitter module (CAT# SE-28). Detection angle 60°. Can receive transmissions from a distance of 8 meters. Operating voltage 5 Vdc. 25mm x 15mm.
CAT# ST-1089 $2.40 each

**INFRARED SENSOR**

RE 200B passive infrared sensor. Two active elements helping compensate for differences in environmental temperature. Used in alarm systems and automatic switches that respond to human body motion. Hermetically sealed TO5 metal case with 3 leads.
CAT# PIR-200B $1.00 ea. • 10 for 90¢ ea.

**PIR SENSOR HC-SR501**

Can be used alone or with Arduino or other microcontroller. Adjustable sensitivity and timing. 33 x 24mm pc board. 25mm overall depth.
CAT# PIR-7 $3.25 each

**IR OBSTACLE AVOIDANCE SENSOR**

Uses IR beam to detect proximity of obstacles. Great for sounding an alarm or changing direction of a robot or self-propelled vehicle. Potentiometer to adjust detection distance (2-40cm). Supply voltage 5 Vdc. 45mm x 16 mm x 9mm.
CAT# ST-1081 $2.75 each

**LINE FOLLOWING / REFLECTIVITY SENSOR**

Measures the reflectivity of a surface using infrared emitter/detector pair. Built around the LM393 comparator, it requires only 3 connections, V+, 5VDC, and GND. LED indicator. Can make a robot follow a painted line or count rotations of a motor shaft. 1.64" x 0.42" x 0.40". Three pin header, 0.1" centers. Operates on 3.3-5Vdc. 20mA @ 5Vdc.
CAT# ST-1140 $2.75 each

**IR TRANSMITTER MODULE**

IR transmitter module designed for IR communication when paired with IR receiver (CAT# ST-1089). Indicator LED lights when signal voltage change is detected. Operating voltage 5Vdc. Includes 3-pin female jumpers for attachment to header pins. 34mm x 20mm.
CAT# SE-28 $3.40 each

**TEMPERATURE SENSORS**

**TEMPERATURE SENSOR**

National Semi # LM34DZ
Precision Fahrenheit sensor. Voltage is linearly proportional to the temperature. Operates on 5-30Vdc. TO-92 package.
CAT# LM34DZ $3.30 each

**TMP36 TEMPERATURE SENSOR**

Precision centigrade temperature sensor. It provides a voltage output that is linearly proportional to the Celsius temperature. +125°C temperature range. TO-92 case.
CAT# TMP-36 $2.00 each

**DIGITAL TEMPERATURE SENSOR**

DS18B20 1-Wire digital temperature sensor. Reports degrees C with 9 to 12-bit precision, -55C to 125C (+/-0.5C). Sensor has a unique 64-Bit Serial number etched into it. TO-92 case.
CAT# DS18B20 $1.50 each

**TEMPERATURE / HUMIDITY SENSOR**

Digital temperature and humidity measurement device with a high-performance 8-bit microcontroller connected. Standard single-bus interface.
CAT# SEN-4 $3.50 each