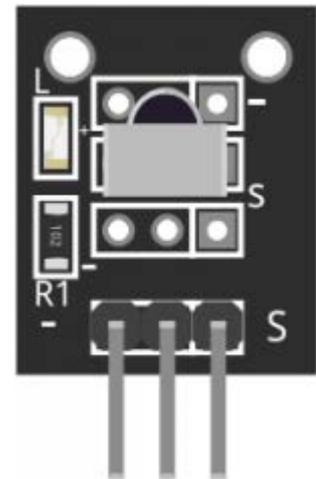# 38 kHz IR Receiver Module

IR receiver module reacts to 38 kHz modulated infrared light.

This module consists of a 38 kHz IR receiver, a 1kΩ resistor and an LED. It works together with a 38 kHz IR transmitter or any regular IR remote control. It's compatible with popular electronic platforms like Arduino, Raspberry Pi and ESP8266.

Operating Voltage	2.7 to 5.5V
Operating Current	0.4 to 1.5mA
Reception Distance	18m
Reception Angle	±45º
Carrier Frequency	38KHz
Low Level Voltage	0.4V
High Level Voltage	4.5V
Ambient Light Filter	up to 500LUX

Pinout and Connection to Arduino

Connect the Power line (middle) and ground (-) to +5 and GND respectively. Connect signal (S) to pin 11 on the Arduino. Line un IR receiver and transmitter.

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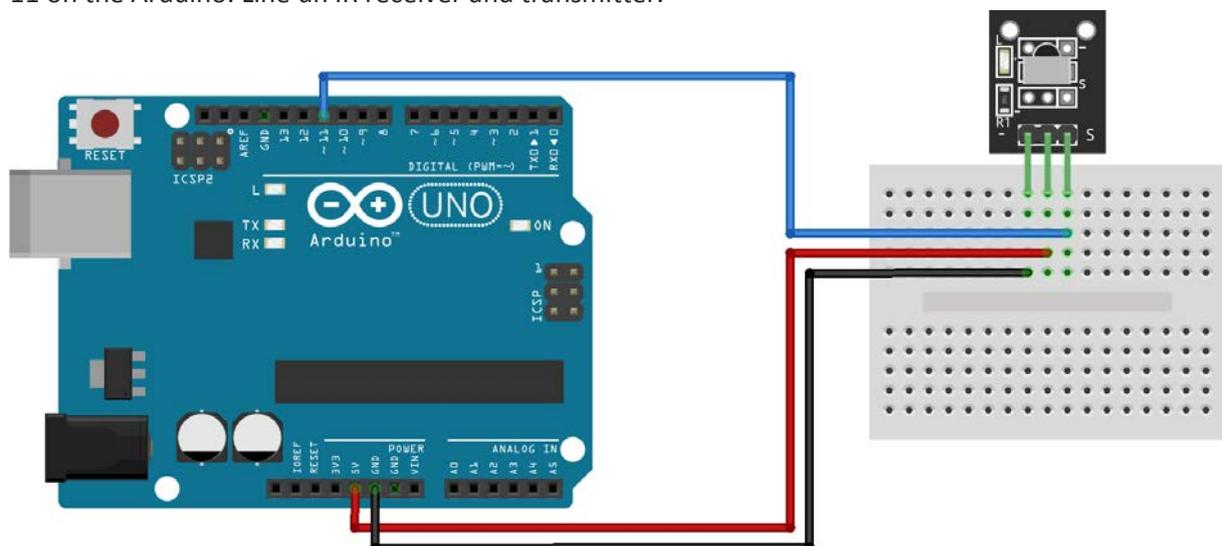
Arduino Example Sketch

The following Arduino sketch uses the <u>IRremote</u> library to receive and process infra-red signals. Use the IR transmitter module to serially send data to this module.

```cpp
#include <IRremote.h>

int RECV_PIN = 11; // define input pin on Arduino
IRrecv irrecv(RECV_PIN);
decode_results results; // decode_results class is defined in IRremote.h

void setup() {
        Serial.begin(9600);
        irrecv.enableIRIn(); // Start the receiver
}

void loop() {
        if (irrecv.decode(&results)) {
                Serial.println(results.value, HEX);
                irrecv.resume(); // Receive the next value
        }
        delay (100); // small delay to prevent reading errors
}
```