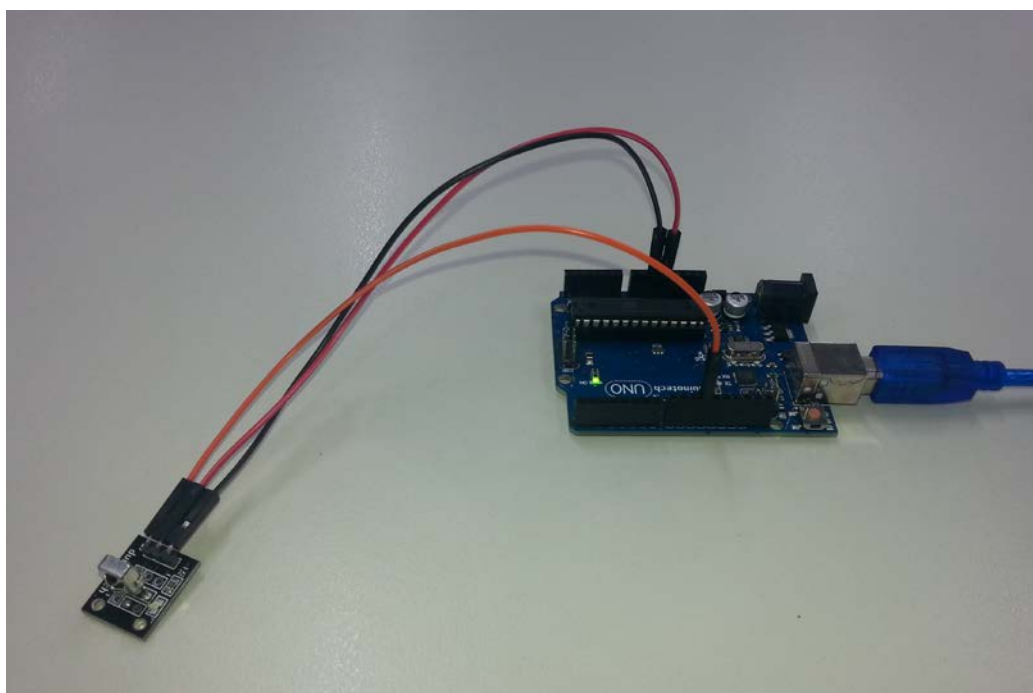## XC4427 IR Receiver Module

The XC4427 IR Receiver Module is a simple way to add input to your projects, and it only uses one IO pin. The suggested library makes interfacing to the module very easy, and we've even made a sketch that decodes the Duinotech remote control that comes in some of the kits.

Pin	Duinotech Pin	Function	Comment
(middle pin)	5V	Power	Power connection
-	GND	Ground	Ground connection
S	D11	IR signal	Demodulated IR signal

Download and install the library from the link below:

https://github.com/z3t0/Arduino-IRremote

It's the same library that is used for the Duinotech XC4426 IR Transmitter Module, so you might already have it installed.

Connect up the module to the Uno as above. If you aren't using the Duinotech remote control, then you can use the IRrecvDemo sketch to dump codes to the serial monitor. The below sample decodes the signals from the Duinotech remote control and displays the button pressed on the serial monitor. You could even modify the code so that it does something else on each button press.

Sample Code:

```
/*
 * IRremote: IRrecvDemo - demonstrates receiving IR codes with IRrecv
 * An IR detector/demodulator must be connected to the input RECV_PIN.
 * Version 0.1 July, 2009
 * Copyright 2009 Ken Shirriff
 * http://arcfn.com
 */
//code added to decode buttons from Duinotech remote
// only slightly modified from Library example
#include <IRremote.h>
int RECV_PIN = 11;
IRrecv irrecv(RECV_PIN);
decode_results results;
void setup()
{
  Serial.begin(9600);
  irrecv.enableIRIn(); // Start the receiver
}

void loop() {
  if (irrecv.decode(&results)) {
//    Serial.println(results.value, HEX);
    switch(results.value){
        case 0xFF629D:     Serial.println("UP");  break;
        case 0xFF22DD:      Serial.println("LEFT");  break;
        case 0xFF02FD:      Serial.println("OK");  break;
        case 0xFFC23D:      Serial.println("RIGHT");  break;
        case 0xFFA857:      Serial.println("DOWN");  break;
        case 0xFF6897:     Serial.println("1");  break;
        case 0xFF9867:     Serial.println("2");  break;
        case 0xFFB04F:      Serial.println("3");  break;
        case 0xFF30CF:     Serial.println("4");  break;
        case 0xFF18E7:     Serial.println("5");  break;
        case 0xFF7A85:      Serial.println("6");  break;
        case 0xFF10EF:     Serial.println("7");  break;
        case 0xFF38C7:     Serial.println("8");  break;
        case 0xFF5AA5:      Serial.println("9");  break;
        case 0xFF42BD:      Serial.println("*");  break;
        case 0xFF4AB5:     Serial.println("0");  break;
        case 0xFF52AD:      Serial.println("#");  break;
    }
    irrecv.resume(); // Receive the next value
  }
  delay(100);
}
```