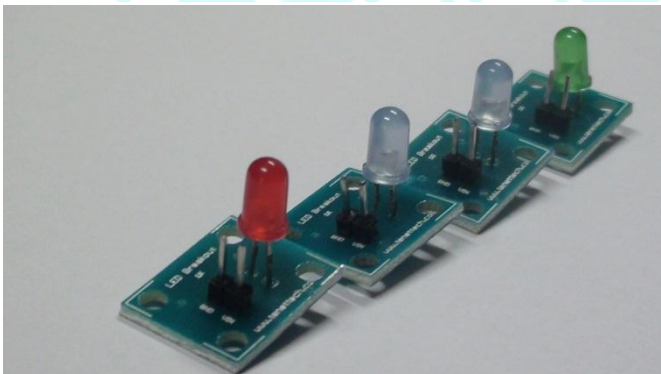




2016

Application Note on Interfacing Arduino with LED



Author: vivek.g.s

Reviewer:

Version1.0

Interfacing Arduino UNO with LED

Introduction

In this application note we will be discussing on interfacing LED with Arduino UNO to blink an LED. Here we will be connecting the LED output to blink an LED for few seconds.

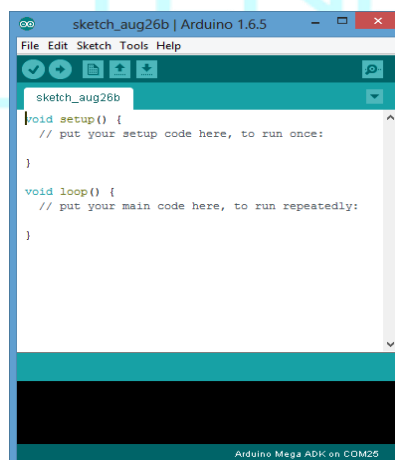
Arduino UNO: [Arduino](#) is an open-source prototyping platform based on easy-to-use hardware and software. [Arduino boards](#) are able to read inputs - light on a sensor, a finger on a button, or a Twitter message - and turn it into an output - activating a motor, turning on an LED, publishing something online. All this is defined by a set of instructions programmed through [the Arduino Software \(IDE\)](#).

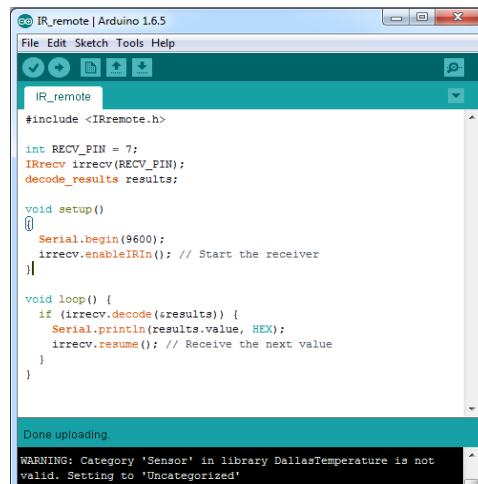
LED: A **light-emitting diode (LED)** is a two-lead semiconductor light source. It is a p-n junction diode, which emits light when activated.^[4] When a suitable voltage is applied to the leads, electrons are able to recombine with electron holes within the device, releasing energy in the form of photons. This effect is called electroluminescence, and the colour of the light (corresponding to the energy of the photon) is determined by the energy band gap of the semiconductor.

Step1. The Materials required are:

- [Arduino UNO](#)
- LED Breakout
- Male to male Jumpers

1. Open Arduino sketch on your PC or Laptop to start the programming.





```
IR_remote
#include <IRremote.h>

int RECV_PIN = 7;
IRrecv irrecv(RECV_PIN);
decode_results results;

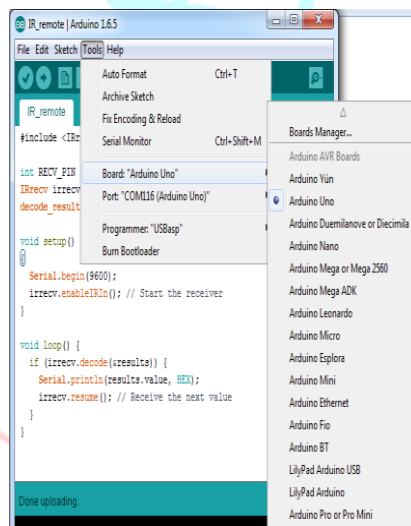
void setup()
{
  Serial.begin(9600);
  irrecv.enableIRIn(); // Start the receiver
}

void loop() {
  if (irrecv.decode(&results)) {
    Serial.println(results.value, HEX);
    irrecv.resume(); // Receive the next value
  }
}
```

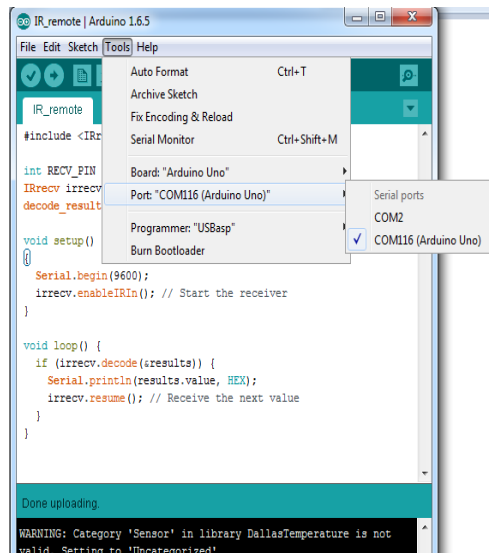
Done uploading.

WARNING: Category 'Sensor' in library DallasTemperature is not valid. Setting to 'Uncategorized'

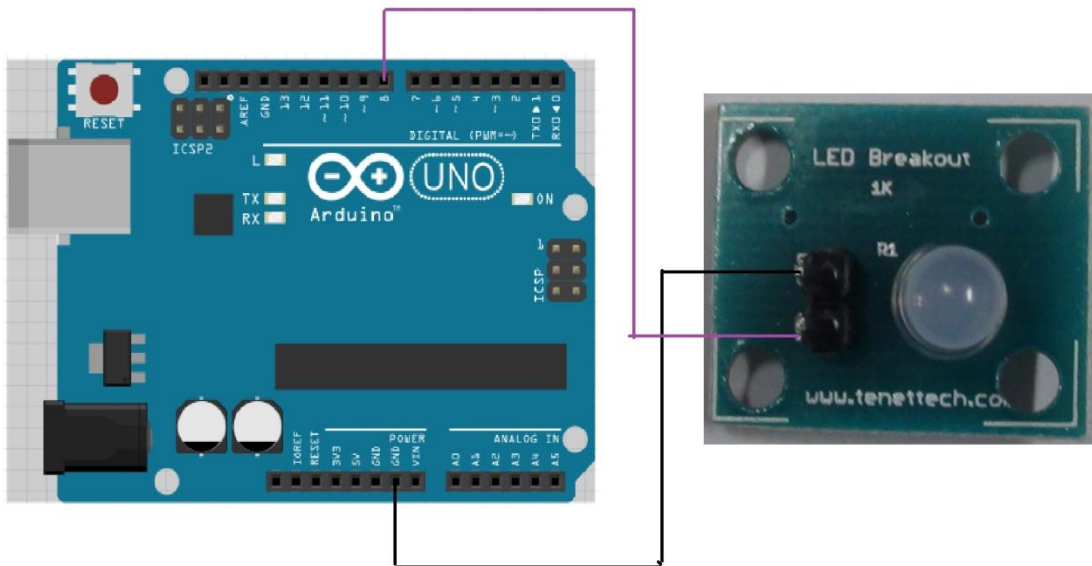
- Type the program for the LED to turn on for 1 sec and turn off 1 sec.
- Click on verify and check for any errors in the program. If no errors are present select the Arduino UNO in IDE. Go to tools> Board> Select Arduino UNO.



- Select port of programming by Tools> Port> Select the port for programming



- Now Upload the program to the arduino



CODE:

```
void setup() {
```

```
    // initialize digital pin 13 as an output.
```

```
    pinMode(13, OUTPUT);
```

```
}
```

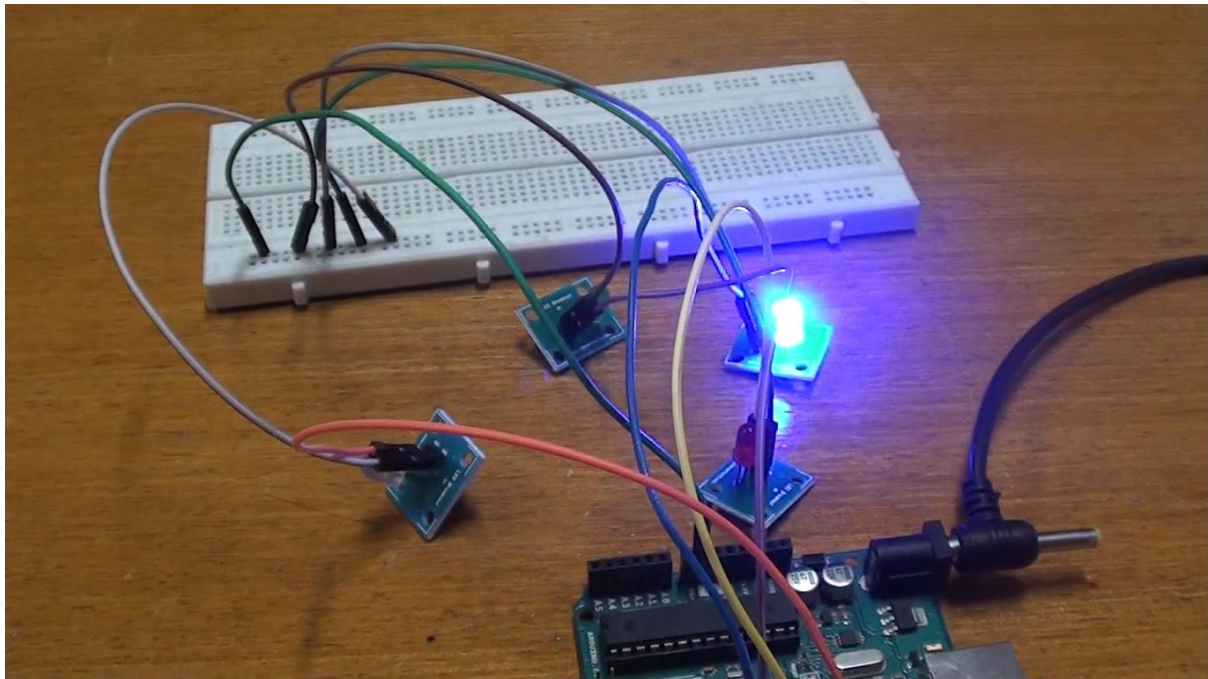
```
// the loop function runs over and over again forever
```

9/3, 2nd floor, SreeLakshmi Complex, opp, to Vivekananda Park, Girinagar, Bangalore - 560085,

Email: info@tenettech.com, Phone: 080 - 26722726

```
void loop() {  
  
    digitalWrite(13, HIGH); // turn the LED on (HIGH is the voltage level)  
  
    delay(1000);          // wait for a second  
  
    digitalWrite(13, LOW); // turn the LED off by making the voltage LOW  
  
    delay(1000);  
}
```

OUTPUT:



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For product info:

1. <http://www.tenettech.com/search?q=arduino+uno&r1=default>
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