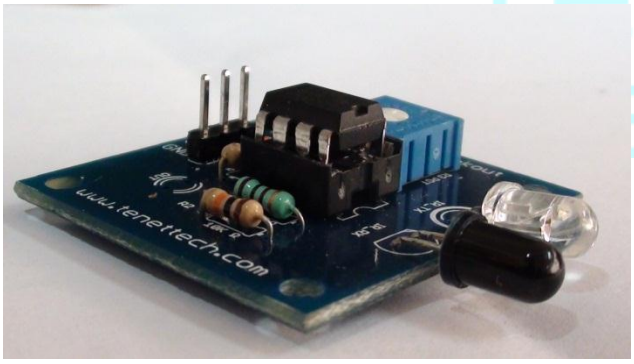
TENET TECHNETRONICS

2016

Application Note on Interfacing Arduino with IR sensor



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Reviewer:

Version1.0

Interfacing Arduino UNO with IR sensor

Introduction

In this application note we will be discussing on interfacing IR sensor with Arduino UNO to blink an LED. Here we will be connecting the IR sensor output to blink an LED whenever an obstacle is detected.

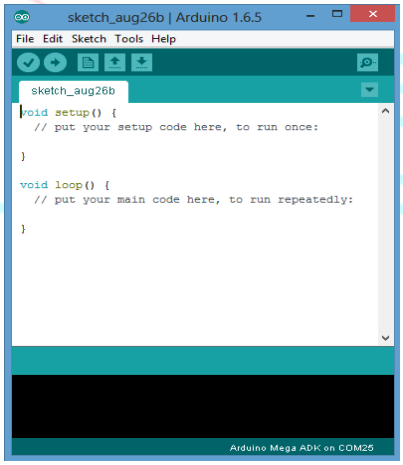
Arduino UNO: Arduino is an open-source prototyping platform based on easy-to-use hardware and software. Arduino boards are able to read inputs - light on a sensor, a finger on a button, or a Twitter message - and turn it into an output - activating a motor, turning on an LED, publishing something online.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

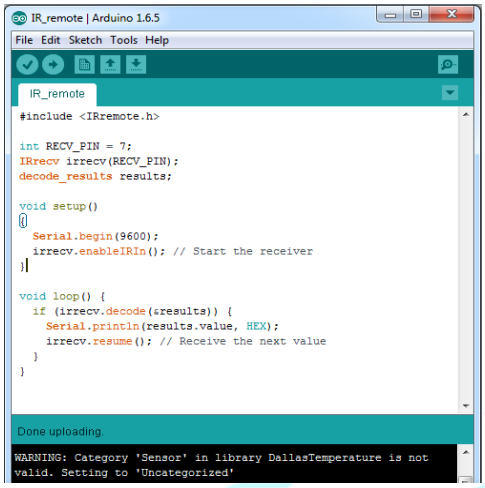
IR Sensor: An **infrared sensor** is an electronic device that emits in order to sense some aspects of the surroundings. An **IR sensor** can measure the heat of an object as well as detects the motion. These types of **sensors** measures only **infrared** radiation, rather than emitting it that is called as a passive **IR sensor.**

Step1. The Materials required are:

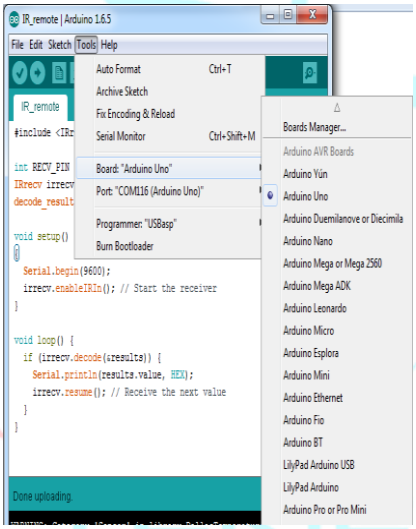
- Arduino UNO
- IR Sensor Breakout
- Male to female Jumpers

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

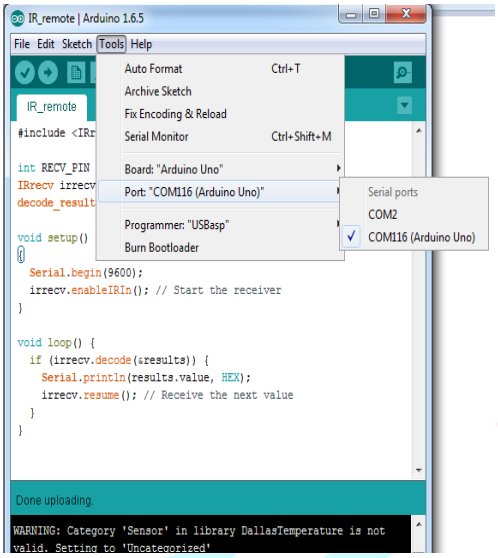




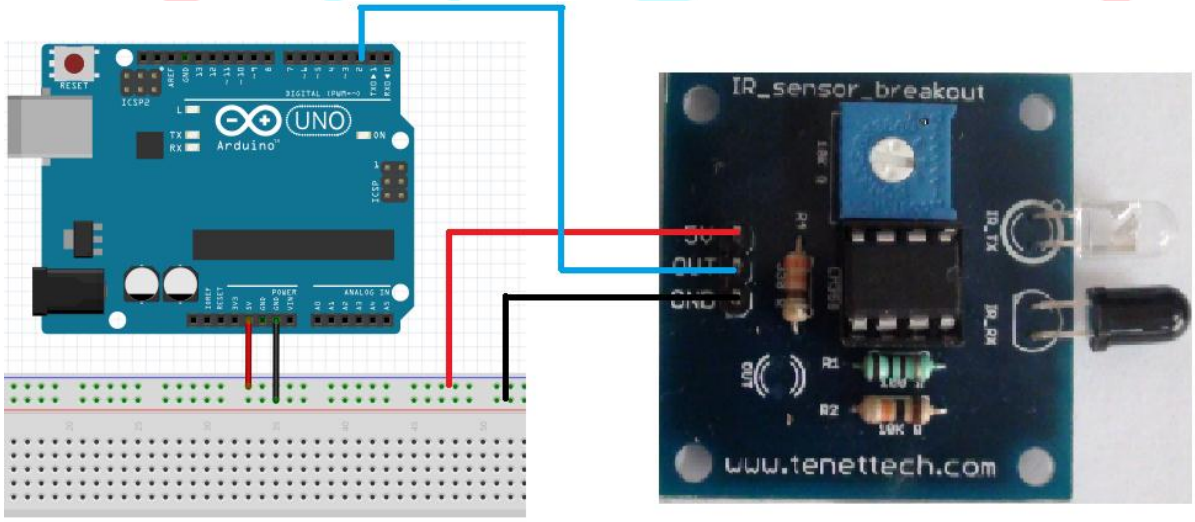
- Type the program for the LED to turn on for 1 sec and turn off 1 sec.
- Click on verify and check for any errors in the program. If no errors are present select the Arduino UNO in IDE. Go to tools> Board> Select Arduino UNO.



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



- Now Upload the program to the arduino

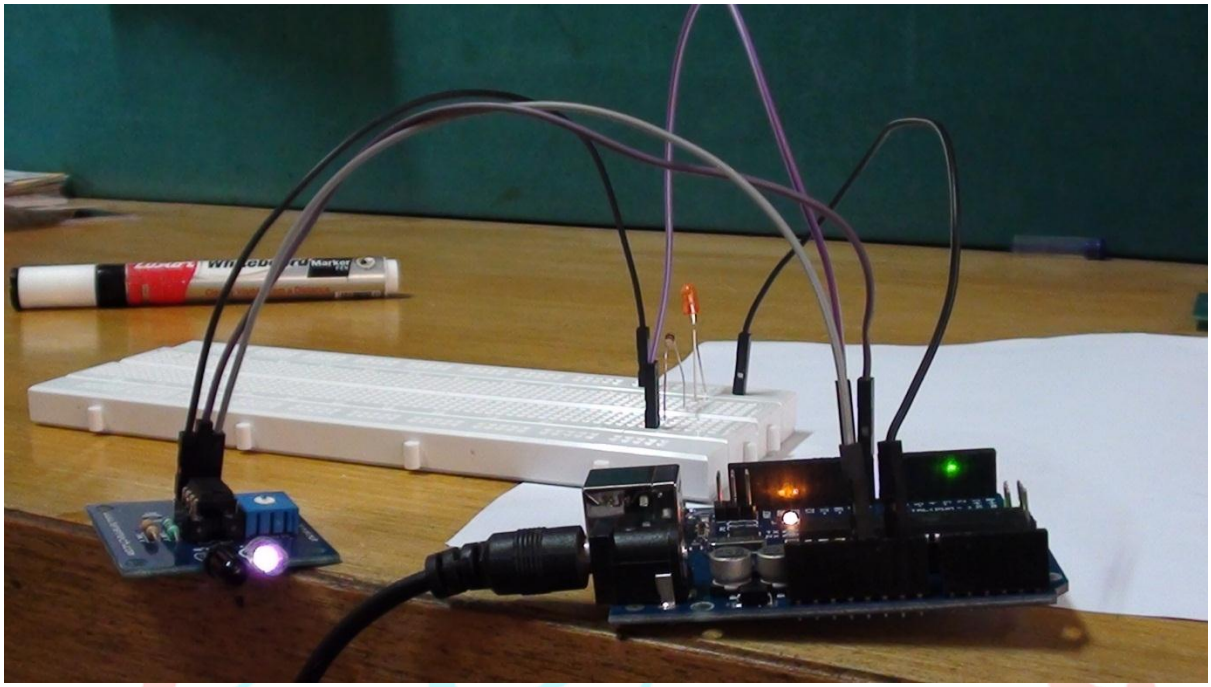


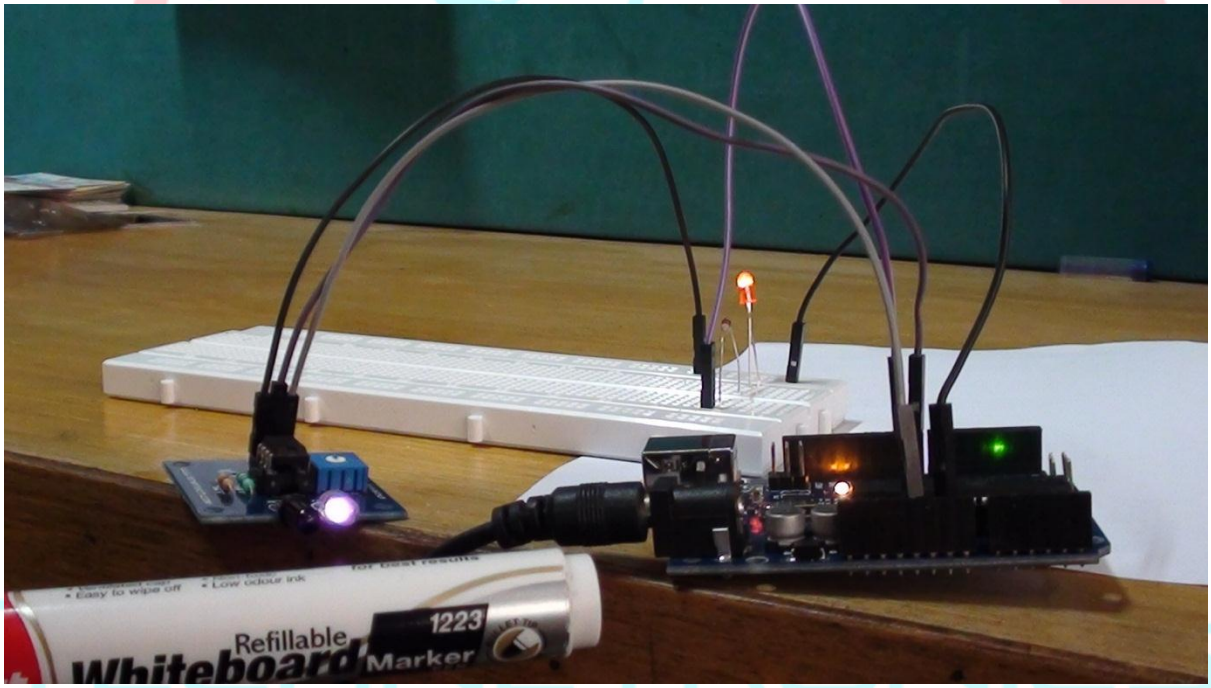
CODE:

```
int IR = 2;

int led=8;


// the setup routine runs once when you press reset:

void setup() {

 // initialize serial communication at 9600 bits per second:

 Serial.begin(9600);

 // make the pushbutton's pin an input:
```

```
  pinMode(IR, INPUT);
  pinMode(led, OUTPUT);
}

// the loop routine runs over and over again forever:
void loop() {
  // read the input pin:
  int outState = digitalRead(pushButton);
  // print out the state of the button:
  Serial.println(buttonState);
  if(outState == HIGH)
  {
    digitalWrite(led, HIGH);
  }
  else
  {
    digitalWrite(led, LOW);
  }
}
```

OUTPUT:





For more information please visit: www.tenettech.com

For technical query please send an e-mail: info@tenettech.com

For product info:

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