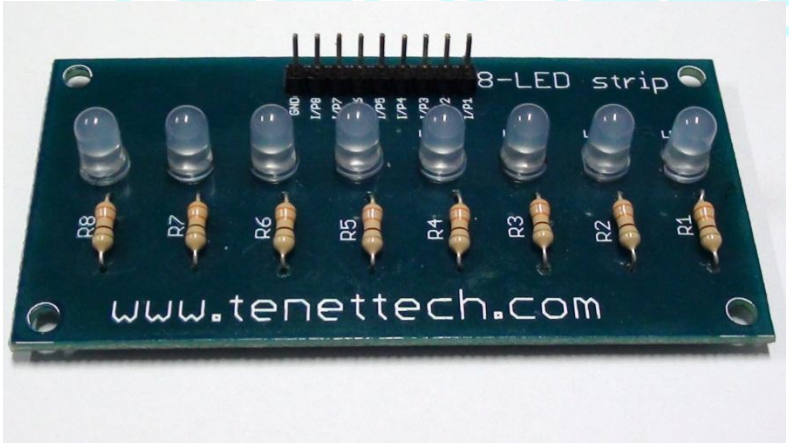
TENET TECHNETRONICS

2015

Application Note on Interfacing Arduino with 8-LED strip



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Reviewer:
Version1.0

Interfacing Arduino UNO with 8-LED strip

Introduction

In this application note we will be discussing on interfacing 8-LED strip with Arduino UNO to glow the corresponding LED when corresponding input goes HIGH.

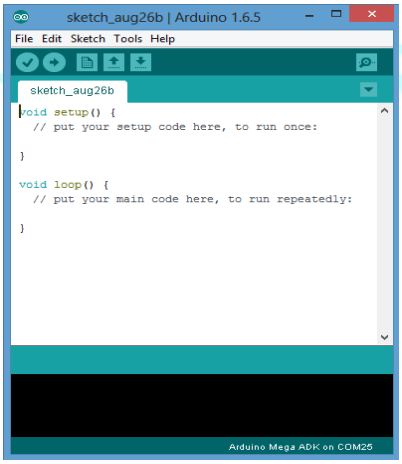
Arduino UNO: Arduino is an open-source prototyping platform based on easy-to-use hardware and software. Arduino boards are able to read inputs - light on a sensor, a finger on a button, or a Twitter message - and turn it into an output - activating a motor, turning on an LED, publishing something online.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

8-LED strip: This is an 8-LED strip breakout in which it contains 8 LED's connected in a single row with the corresponding 8 inputs with common ground point for all 8 LED's. This strip LED breakout has more advantages like you don't have to connect each LED's in a breadboard each time if you wanted to do something, this reduces wiring connections, when a corresponding input is made high the corresponding LED glows and it comes with applications like roadrunner, disco lights, etc.,

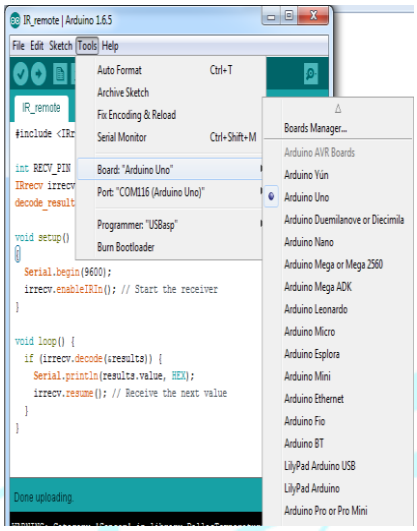
Step1. The Materials required are:

- Arduino UNO
- 8-LED strip breakout
- Male to Female Jumpers
- USB Cable
-

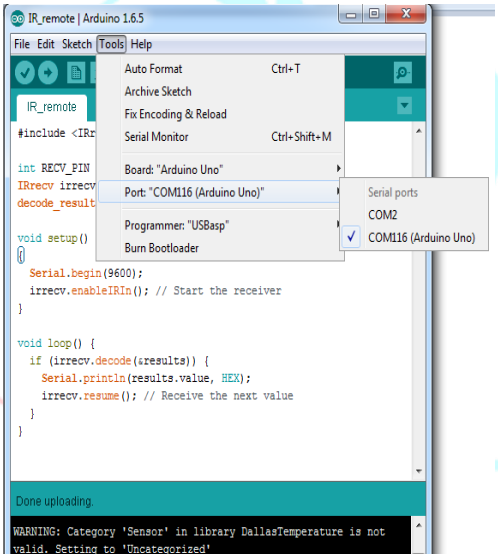
1. Open Arduino sketch on your PC or Laptop to start the programming.



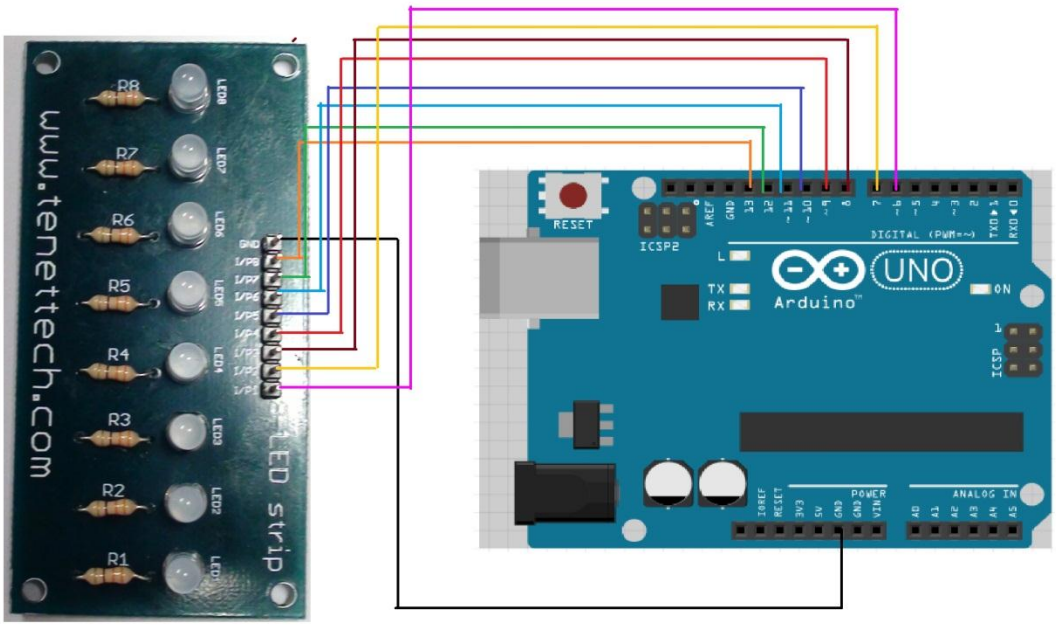
- Here we are programming a roadrunner application, type the program.
- Click on verify and check for any errors in the program. If no errors are present select the Arduino UNO in IDE. Go to tools> Board> Select Arduino UNO.



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



- Now Upload the program to the arduino

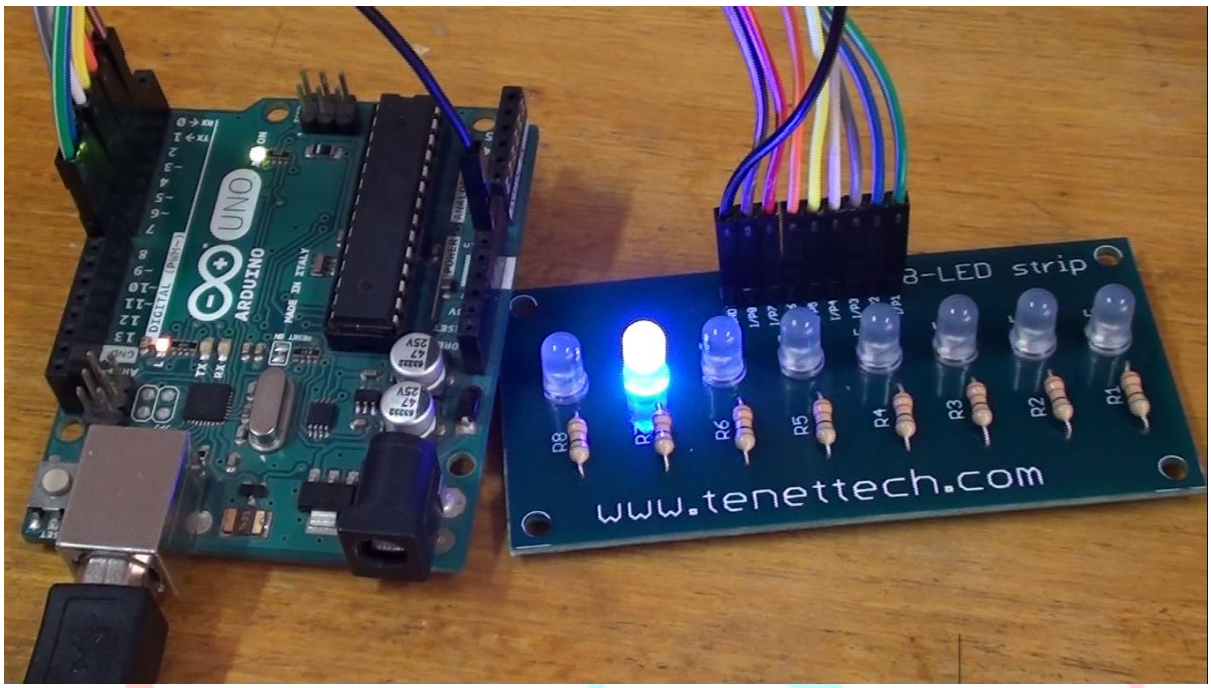


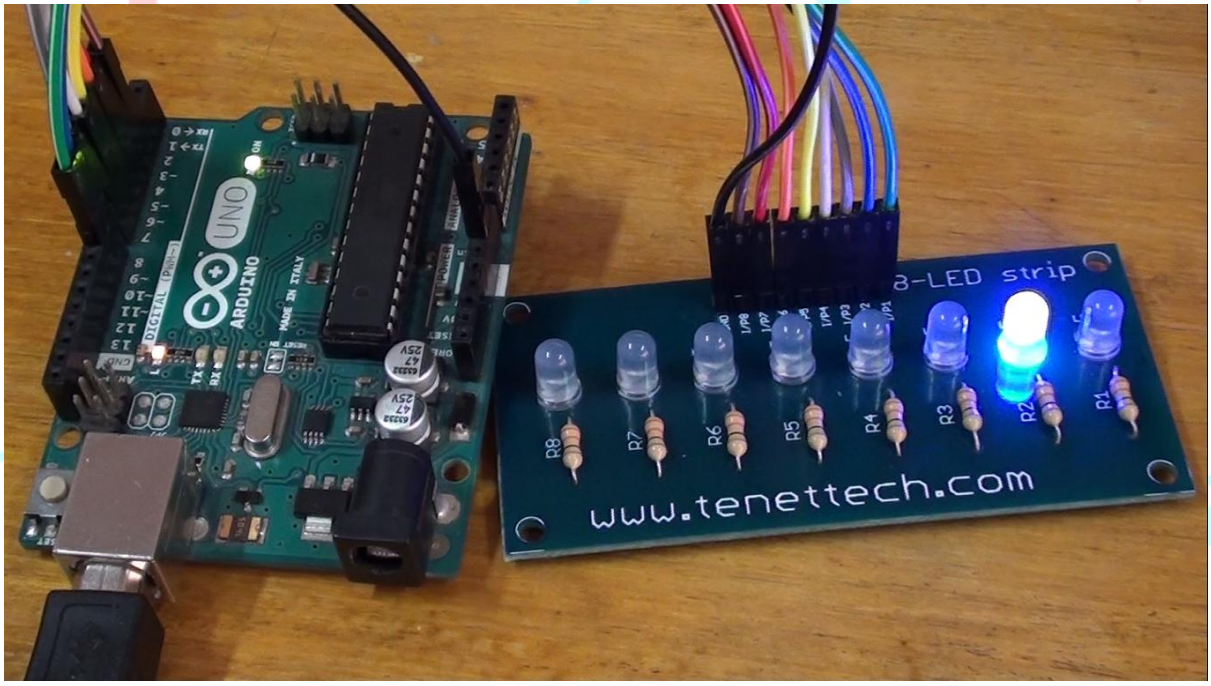
CODE:

```
byte pins[8] = {2, 3, 4, 5, 6, 7, 8, 9};

byte i;


void setup()

{

 //set every pin from 0 to 7 in the array to OUTPUT mode

 for(i=0; i<=7; i++)

 {

 pinMode(pins[i], OUTPUT);

 }

}


void loop()

{
```

```
  for(i=0; i<7; i++) //FOR loop goes from the first LED to last
  {
    digitalWrite(pins[i], HIGH); //turn the LED on
    delay(200);  //wait 200ms
    digitalWrite(pins[i], LOW); //turn the LED off
  }

  for(i=7; i>0; i--) //FOR loop goes from the last LED to first
  {
    digitalWrite(pins[i], HIGH); //turn the LED on
    delay(200);  //wait 200ms
    digitalWrite(pins[i], LOW); //turn the LED off
  }
}
```


OUTPUT:





For more information please visit: www.tenettech.com

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