**Project 5:**

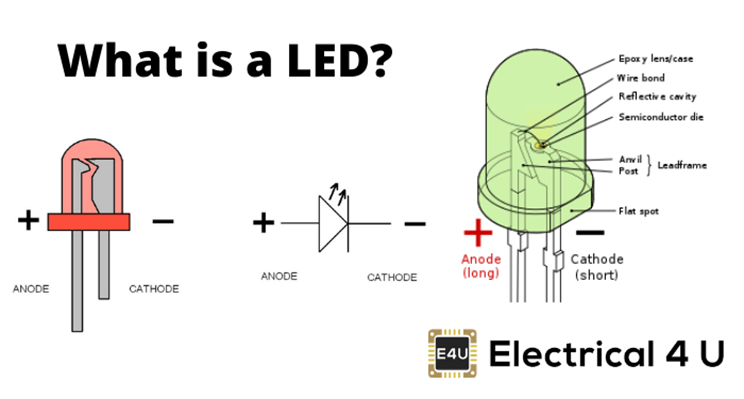
**Traffic signal Light Controlling**

**Description**: In this project we will demonstrate how we can make 3 road signal traffic light using led . we have 3 led red , yellow and green . we construct them in the right way and make a automated traffic control signal. Red light means stop and yellow light meant ready to go and green light means go. Here we make 3 road light signal for safety traking and then will change automatically.

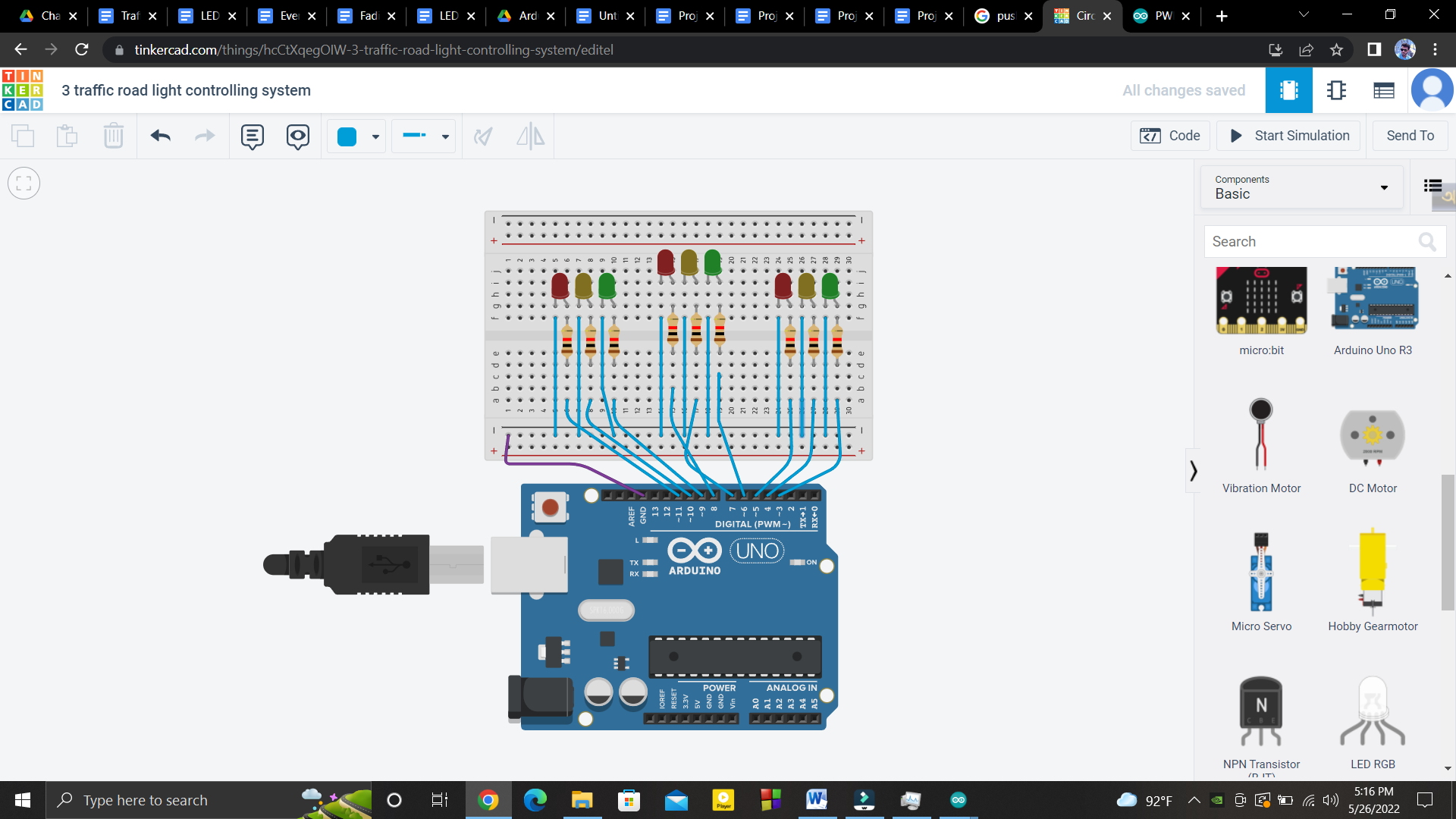
**Required Hardware:**

* Arduino Uno.
* Breadboard.
* Jumper wire.
* 9 LEDs.
* Resistor.
* USB type A/B.
* Push button

**LED**:



**Circuit Diagram:**



**Pin Configuration:**

1st signal :

* Green led connected to arduino’s pin 3.
* Yellow led connected to arduino’s pin 4.
* Red led connected to arduino’s pin 5.

2nd signal:

* Green led connected to arduino’s pin 6.
* Yellow led connected to arduino’s pin 7.
* Red led connected to arduino’s pin 8.

3rd signal:

* Green led connected to arduino’s pin 9.
* Yellow led connected to arduino’s pin 10.
* Red led connected to arduino’s pin 10.

**Code:**

|  |  |
| --- | --- |
| |  | | --- | | int sig1[]={3,4,5}; int sig2[]={6,7,8}; int sig3[]={9,10,11}; int dly1=5000; int dly2=2000; int dly3=5000; int i;   void setup() {   for(i=0;i<3;i++)   {   pinMode(sig1[i],OUTPUT);    pinMode(sig2[i],OUTPUT);   pinMode(sig3[i],OUTPUT);       }   }   void loop() {   //1st road light signal   digitalWrite(sig1[2],HIGH);   digitalWrite(sig2[0],HIGH);   digitalWrite(sig3[0],HIGH);   delay(dly1);     digitalWrite(sig1[2],LOW);   for(i=0;i<3;i++)          // blink the red led   {  digitalWrite(sig1[2],HIGH);  delay(1000);  digitalWrite(sig1[2],LOW);  delay(1000);    }   digitalWrite(sig1[1],HIGH);   delay(dly2);   digitalWrite(sig1[1],LOW);   for(i=0;i<3;i++)         // blink the yellow led   {  digitalWrite(sig1[1],HIGH);  delay(1000);  digitalWrite(sig1[1],LOW);  delay(1000);    }       //2nd Road light Signal     digitalWrite(sig1[0],HIGH);   digitalWrite(sig2[2],HIGH);  digitalWrite(sig2[0],LOW);   digitalWrite(sig3[0],HIGH);   delay(dly1);  digitalWrite(sig2[2],LOW);  for(i=0;i<3;i++)        // blink the red Led   {  digitalWrite(sig2[2],HIGH);  delay(1000);  digitalWrite(sig2[2],LOW);  delay(1000);    }    digitalWrite(sig2[1],HIGH);   delay(dly2);   digitalWrite(sig2[1],LOW);   for(i=0;i<3;i++)        //blink the yellow Led   {  digitalWrite(sig2[1],HIGH);  delay(1000);  digitalWrite(sig2[1],LOW);  delay(1000);    }     //3rd road Light signal    digitalWrite(sig3[0],LOW);   digitalWrite(sig3[2],HIGH);   digitalWrite(sig1[0],HIGH);  digitalWrite(sig2[0],HIGH); delay(dly1);  digitalWrite(sig3[2],LOW);  for(i=0;i<3;i++)           //blink the red Led   {  digitalWrite(sig3[2],HIGH);  delay(1000);  digitalWrite(sig3[2],LOW);  delay(1000);    }  digitalWrite(sig3[1],HIGH);   delay(dly2);  digitalWrite(sig3[1],LOW);     for(i=0;i<3;i++)                                          // blink the Yellow led   {  digitalWrite(sig3[1],HIGH);  delay(1000);  digitalWrite(sig3[1],LOW);  delay(1000);    }   digitalWrite(sig1[0],LOW);   } | |