

Industrial Applications of Microcontrollers – A Practice Based Approach

TASK – 2

Assume that you are an embedded engineer working on a simple microcontroller project. Your task is to write an embedded C code that turns on an LED when a button switch is pressed. The LED should remain on as long as the button is pressed and should turn off when the button is released.

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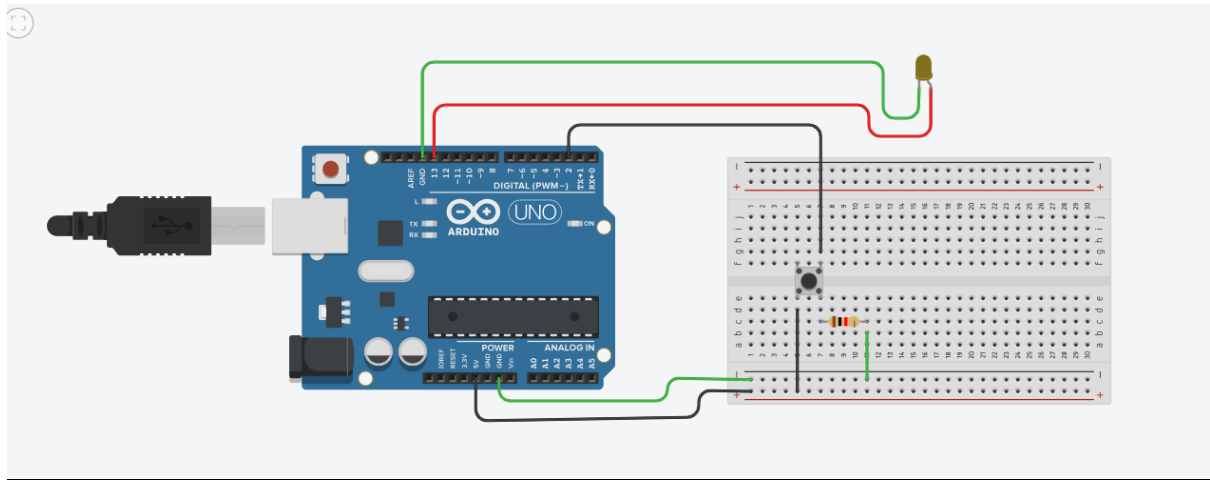
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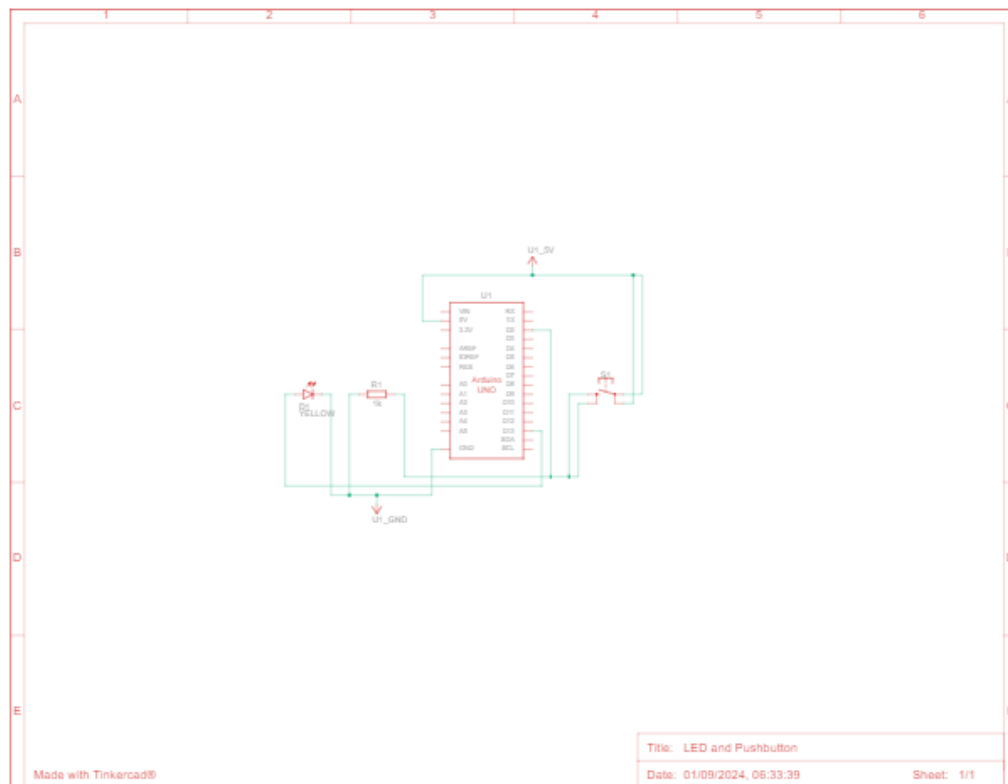
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LED and Pushbutton on Microcontroller



LED and pushbutton circuit with Arduino UNO R3

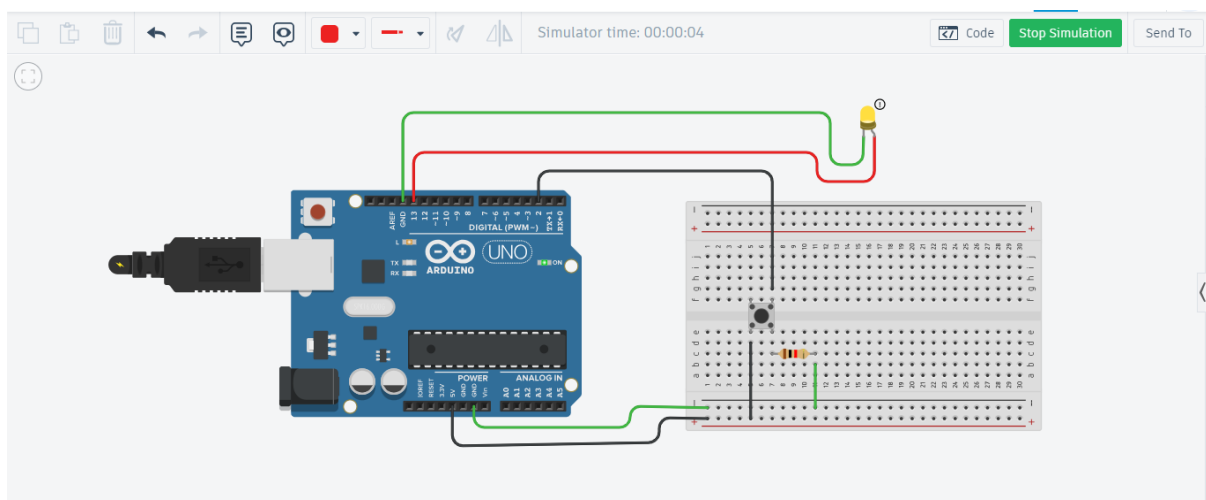


Circuit Diagram for the project

CODE for the working of LED when the switch is pressed

```
void setup()
{
  pinMode(2, INPUT);
  pinMode(13, OUTPUT);
}

void loop()
{
  if(digitalRead(2) == HIGH)
  {
    digitalWrite(13, HIGH);
  }
  else
  {
    digitalWrite(13, LOW);
  }
}
```



LED is on when the switch is pressed