



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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Experiment1.4

Student Name: Simranpreet Kaur

Branch: CSE

Semester: 06

Subject Name: IOT LAB

UID: 20BCS3241

Section/Group: DM-612-B

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Subject Code:20CSP-358

1. Aim:

Program to interface the Arduino with LED and blinking application.

2. Objective:

1. Learn about interfacing.
2. Learn about IoT programming.

3. Components Required:

- 1 × Breadboard
- 1 × Arduino Uno R3
- 1 × LED
- 1 × 330Ω Resistor
- 2 × Jumper

Procedure

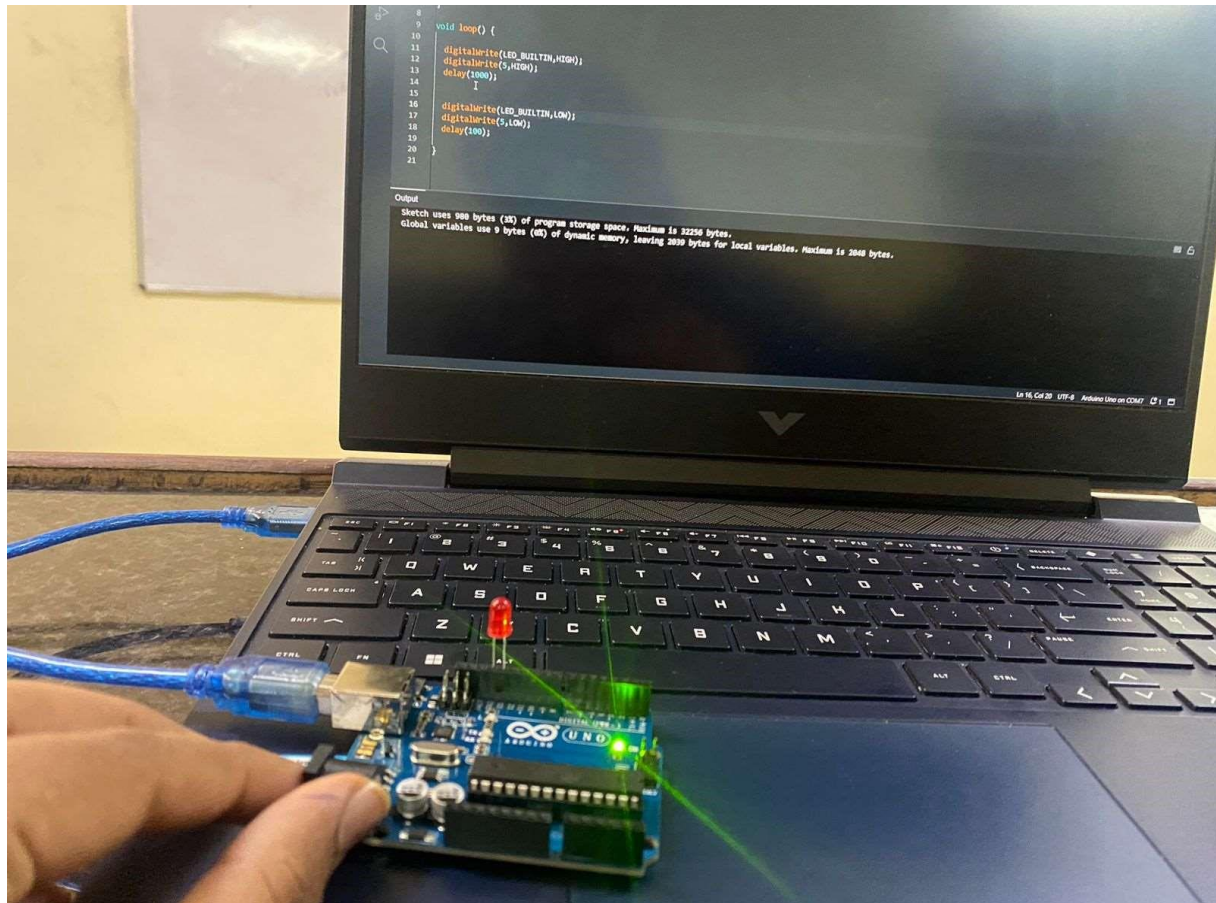
LEDs are small, powerful lights that are used in many different applications. To start, we will

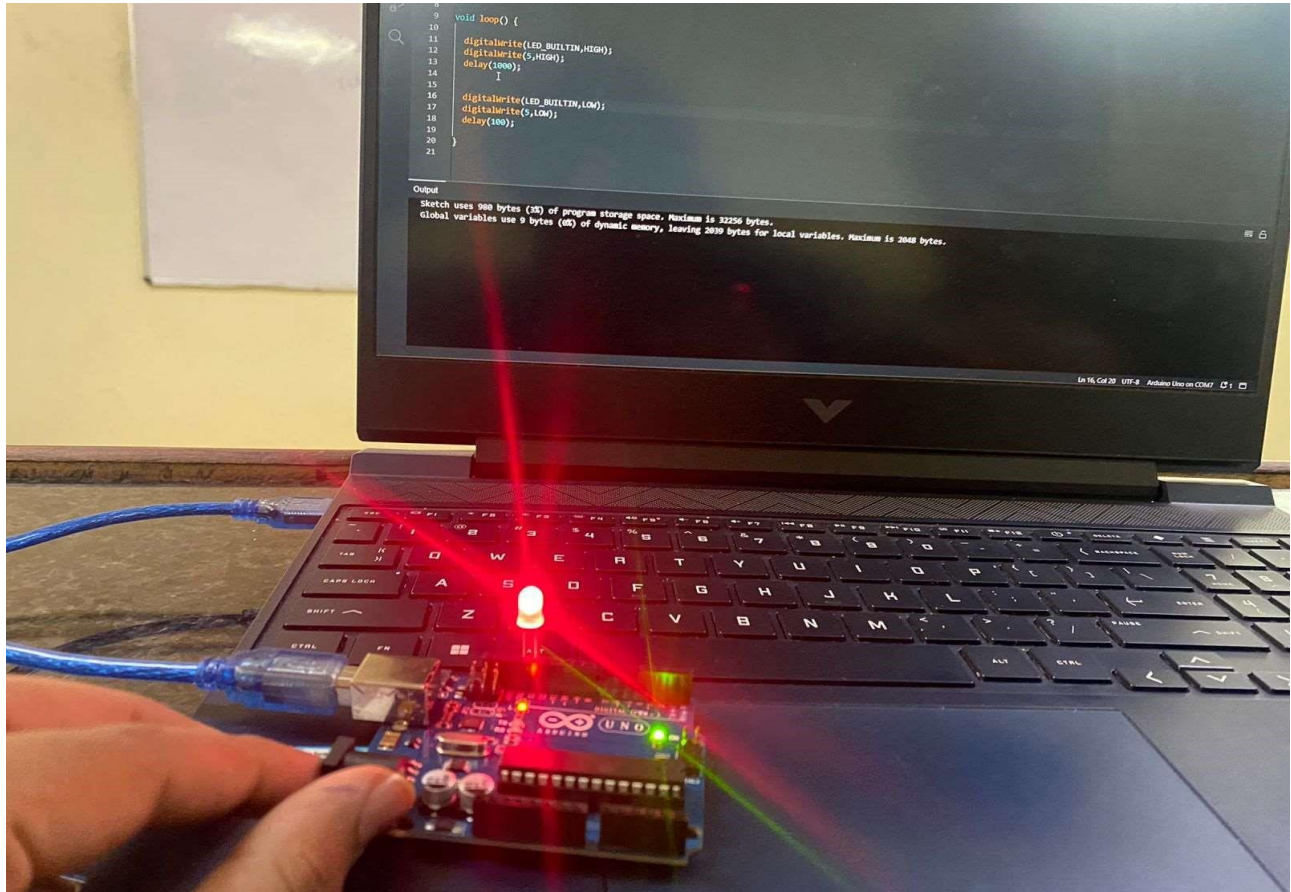
work on blinking an LED, the Hello World of microcontrollers. It is as simple as turning a

light on and off. Establishing this important baseline will give you a solid foundation as we work towards experiments that are more complex.

Follow the circuit diagram and hook up the components on the breadboard as shown in the

image given below.





CODE :

```
void setup() {  
    // put your setup code here, to run once:  
    pinMode(LED_BUILTIN,OUTPUT);    pinMode(5,OUTPUT);  
}  
void loop()  
{  
    digitalWrite(LED_BUILTIN,HIGH);  
    digitalWrite(5,HIGH); delay(1000);  
    digitalWrite(LED_BUILTIN,LOW);  
    digitalWrite(5,LOW); delay(700);  
}
```



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}

A screenshot of the Arduino IDE 2.0.3 interface. The window title is "EXP4_IOT | Arduino IDE 2.0.3". The menu bar includes File, Edit, Sketch, Tools, and Help. The toolbar shows icons for opening files, saving, and uploading. A dropdown menu shows "Arduino Uno". The left sidebar contains icons for the File Explorer, Serial Monitor, and Search. The main editor area shows the sketch "EXP4_IOT.ino" with the following code:

```
1 void setup() {  
2   // put your setup code here, to run once:  
3   pinMode(LED_BUILTIN, OUTPUT);  
4   pinMode(5, OUTPUT);  
5  
6  
7 }  
8  
9 void loop() {  
10  
11   digitalWrite(LED_BUILTIN, HIGH);  
12   digitalWrite(5, HIGH);  
13   delay(1000);  
14  
15  
16   digitalWrite(LED_BUILTIN, LOW);  
17   digitalWrite(5, LOW);  
18   delay(700);  
19  
20 }  
21
```