

Program no 02

Program Title: PUSH-BUTTON

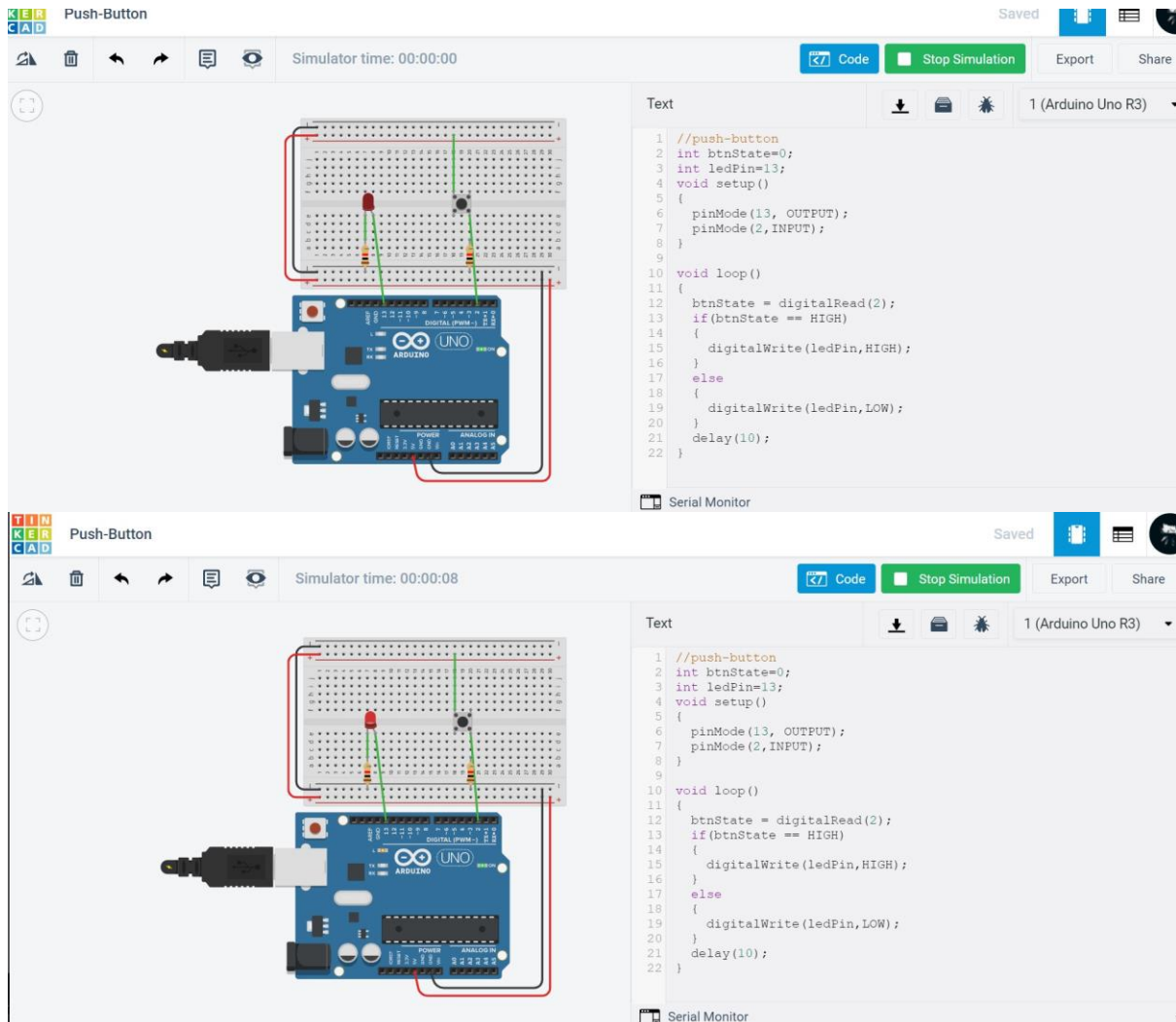
Aim

To demonstrate working of LED when button is pushed

Hardware Required

- Arduino Board
- Led Light
- 1 ohm resistor
- 1 Push Button

Circuit Diagram –



The image shows a Tinkercad simulation of a push-button circuit. The circuit consists of an Arduino Uno R3 board connected to a breadboard. A push button is connected to the breadboard, and an LED is connected to the Arduino. The code in the Text area is as follows:

```
1 //push-button
2 int btnState=0;
3 int ledPin=13;
4 void setup()
5 {
6   pinMode(13, OUTPUT);
7   pinMode(2, INPUT);
8 }
9
10 void loop()
11 {
12   btnState = digitalRead(2);
13   if(btnState == HIGH)
14   {
15     digitalWrite(ledPin, HIGH);
16   }
17   else
18   {
19     digitalWrite(ledPin, LOW);
20   }
21   delay(10);
22 }
```

Code:

//push-button

int btnState=0;

int ledPin=13;

void setup()

{

pinMode(13, OUTPUT);

pinMode(2,INPUT);

}

void loop()

{

btnState = digitalRead(2);

if(btnState == HIGH)

{

digitalWrite(ledPin,HIGH);

}

else

{

digitalWrite(ledPin,LOW);

}

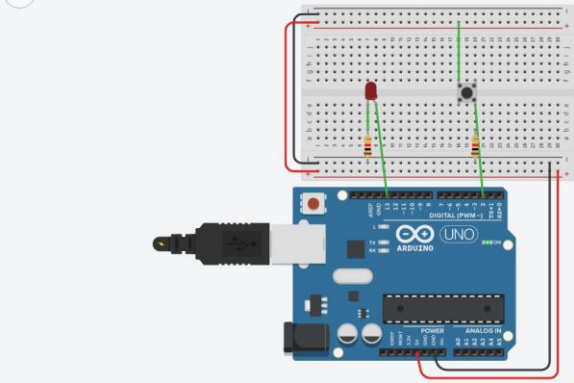
delay(10);

}

Observation /Output:

Push-Button

Simulator time: 00:00:00



Code

Stop Simulation

Export

Share

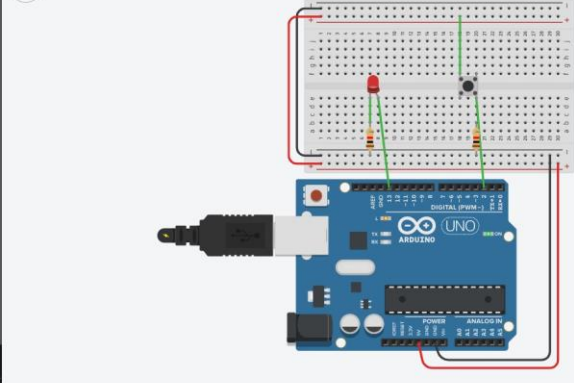
Text

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21   delay(10);
22 }
```

Serial Monitor

Push-Button

Simulator time: 00:00:08



Code

Stop Simulation

Export

Share

Text

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Serial Monitor