UNIVERSITY OF INFORMATION TECHNOLOGY & SCIENCES

(UITS)

ASSIGNMENT
on
INTERNET OF THINGS LAB

Submitted To

Ayanava Paul
Lecturer,
Department of CSE, UITS

Submitted By

FAZLAY RABBI

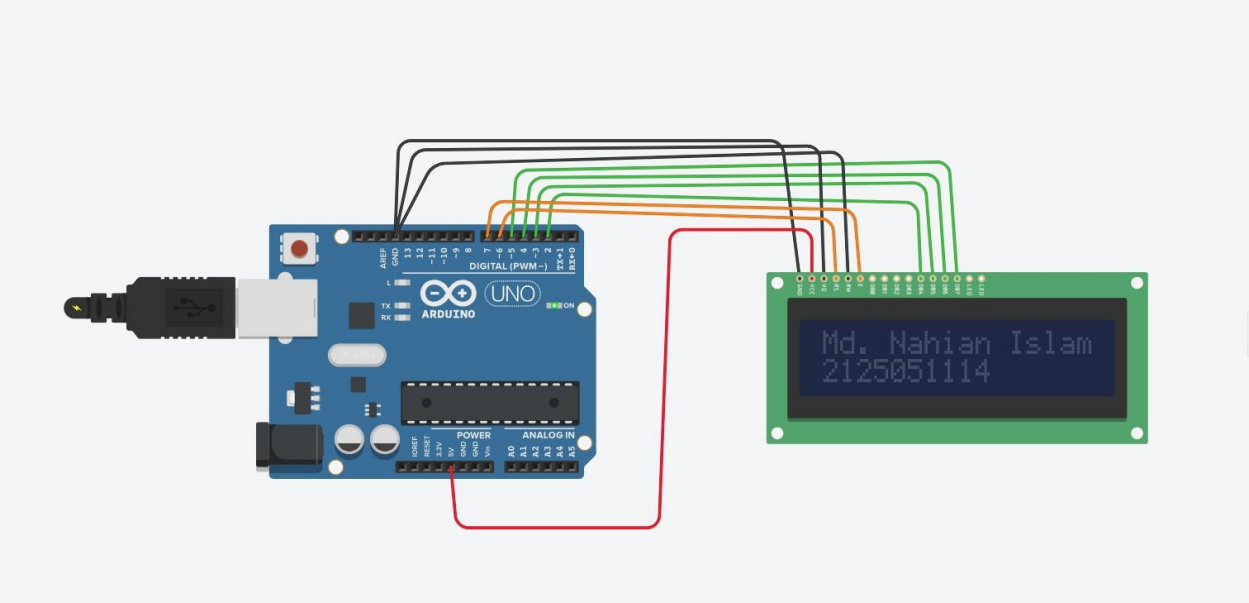
- Department ⇨ CSE
- ID ⇨ 2125051070
- Semester ⇨ Autumn 2024
- Batch ⇨ 50
- Section ⇨ 7B1
- Subject Code ⇨ CSE 402
- Date of Submission ⇨ 23.09.2024

Signature

Display Information using UNO R3

Title: Display your name and student ID in the first and second row respectively of the LCD. Also show them in serial monitor.

Necessary Equipment: 1. Arduino UNO R3
2. 5. 16*2



Code:

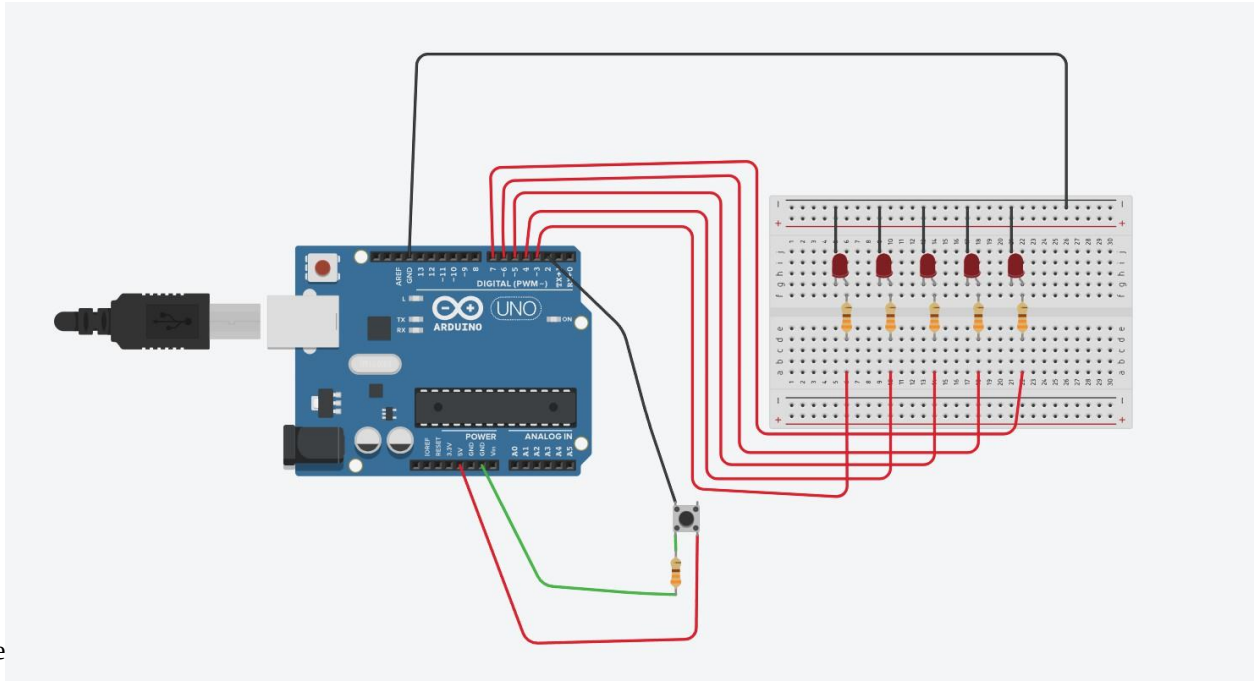
```
#include <LiquidCrystal.h>

char a[] = "Md. Nahian Islam";
char id[] = "2125051114";

LiquidCrystal lcd(6,7,2,3,4,5); //Rs,E,D4,d5,D6,D7

void setup()
{
```

```
  lcd.begin(16,2);

  Serial.begin(9600);
 }

 void loop()
 {
  lcd.setCursor(0,0);
  lcd.print(a);
  lcd.setCursor(0,1);
  lcd.print(id);
  Serial.println(a);
  delay(1000);
  Serial.println(id);
  delay(1000);
}
```

Even, odd position light blink

Title: Build a mini LED array project with Arduino where at first the LEDs at odd position will be blinked serially. Then the LEDs at an even position will be blinked serially. Take 5 LED

Necessary Equipment:
1. Arduino UNO R3
2. Breakbord
3. 330 Ohom resistor
4. 5LED



Code

```
int pushButton=2;
int odd_pos[]={4,6};
int even_pos[]={3,5,7};
void setup()
{
  pinMode(pushButton,INPUT);
  int even_arr = 0;
  int odd_arr = 0;
  for(int i = 0; i < 5; i++){
    if(i%2==0){
      pinMode(even_pos[even_arr], OUTPUT);
      even_arr++;
    }
    else{
      pinMode(odd_pos[odd_arr], OUTPUT);
      odd_arr++;
    }
  }
  Serial.begin(9600);
    delay(1000);
}
void loop(){
  int inputState= digitalRead(pushButton);
  if(inputState==HIGH){
   for(int i = 0; i < 2; i++){
   digitalWrite(odd_pos[i], 1);
   delay(1000);
    Serial.println(odd_pos[i]);
   delay(1000);
   digitalWrite(odd_pos[i], 0);
   delay(100);
   }
    for(int i = 0; i < 3; i++){
   digitalWrite(even_pos[i], 1);
   delay(1000);
   Serial.println(even_pos[i]);
```

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0/00:53

Serial Monitor