INTERNET OF THINGS LAB ASSIGNMENT

Course code: CSE-402
Submitted to:
Ayanava Paul
Lecturer, UITS

SUBMITTED BY:
MD. SHAKIBUL ISLAM RAMIM
ID: 2125051063
Batch: CSE-50
Section: 7B1
Email: 2125051063@uits.edu.bd

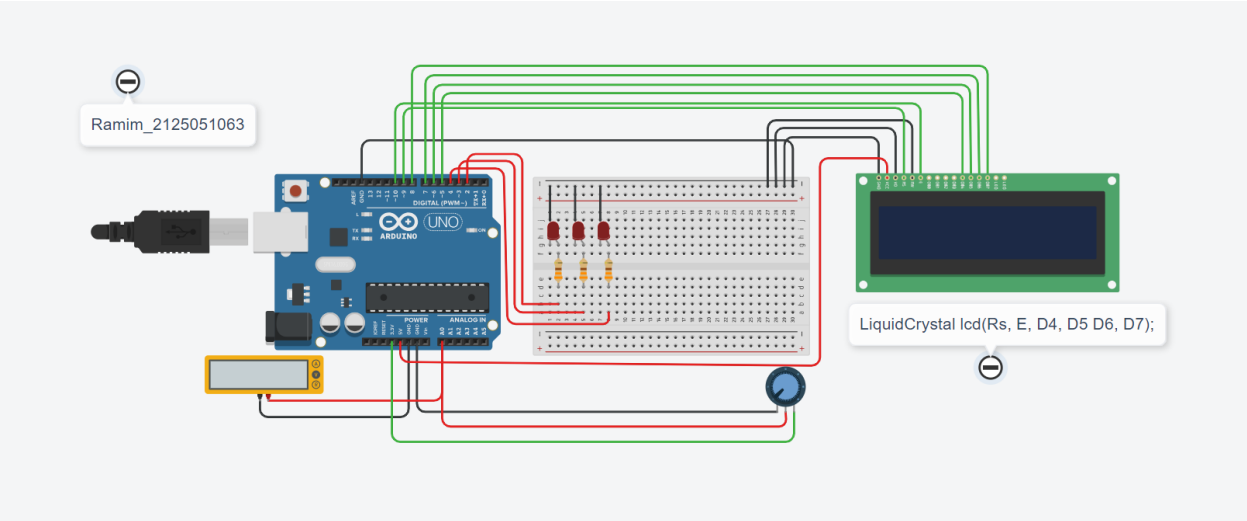
1. Analog Input- Digital Output

Title: Analog Input (Potentiometer)- Digital Output (LED blink)

Necessary Equipment:

1. Arduino UNO R3
2. Breadboard
3. 330 Ohm resistor
4. 3 LED
5. Potentiometer
6. Multimeter
7. LED 16*2

Circuit Figure:



Code:

```
#include <LiquidCrystal.h>


// C++ code

int pin[] = {2,3,4};

LiquidCrystal lcd(9,10,5,6,7,8); // Rs, E, D4, D5 D6, D7
```

```
void setup()
{
  pinMode(pin[0], OUTPUT);
  pinMode(pin[1], OUTPUT);
  pinMode(pin[2], OUTPUT);
  pinMode(A0, INPUT);



  lcd.begin(16,2);
  Serial.begin(9600);
  delay(1000);

}

void loop()
{
  lcd.setCursor(6,0);
  lcd.print("Ramim:");
  float analogval=analogRead(A0);
  float volt = ((5*analogval)/1023);
  Serial.println(volt);
  delay(1000);
  if (volt == 00 || volt >= 3.29){
    lcd.setCursor(0,1);
            lcd.print("L_ON:  1,2,3");
```

```
  digitalWrite(pin[0], HIGH);
  digitalWrite(pin[1], HIGH);
  digitalWrite(pin[2], HIGH);
  delay(1000);
   lcd.setCursor(0,1);
         lcd.print("              ");
  digitalWrite(pin[0], LOW);
  digitalWrite(pin[1], LOW);
  digitalWrite(pin[2], LOW);
  lcd.setCursor(0,1);
         lcd.print("L_OFF: 1,2,3");



}else{
  if (volt >= 3.0){
    digitalWrite(pin[0], HIGH);
    digitalWrite(pin[1], LOW);
    digitalWrite(pin[2], LOW);
    lcd.setCursor(0,1);
           lcd.print("L_ON:1 L_OFF:2,3");

  }
  else if(volt >= 2 && volt < 3.0){
    digitalWrite(pin[0], LOW);
    digitalWrite(pin[1], HIGH);
    digitalWrite(pin[2], LOW);
```

```
    lcd.setCursor(0,1);
          lcd.print("L_ON:2 L_OFF:1,3");
   }
   else{
    digitalWrite(pin[0], LOW);
    digitalWrite(pin[1], LOW);
    digitalWrite(pin[2], HIGH);
    lcd.setCursor(0,1);
          lcd.print("L_ON:3 L_OFF:1,2");
   }
 }
}
```

The End