INTERNET OF THINGS LAB ASSIGNMENT

Course code: CSE-402
Submitted to:
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SUBMITTED BY:
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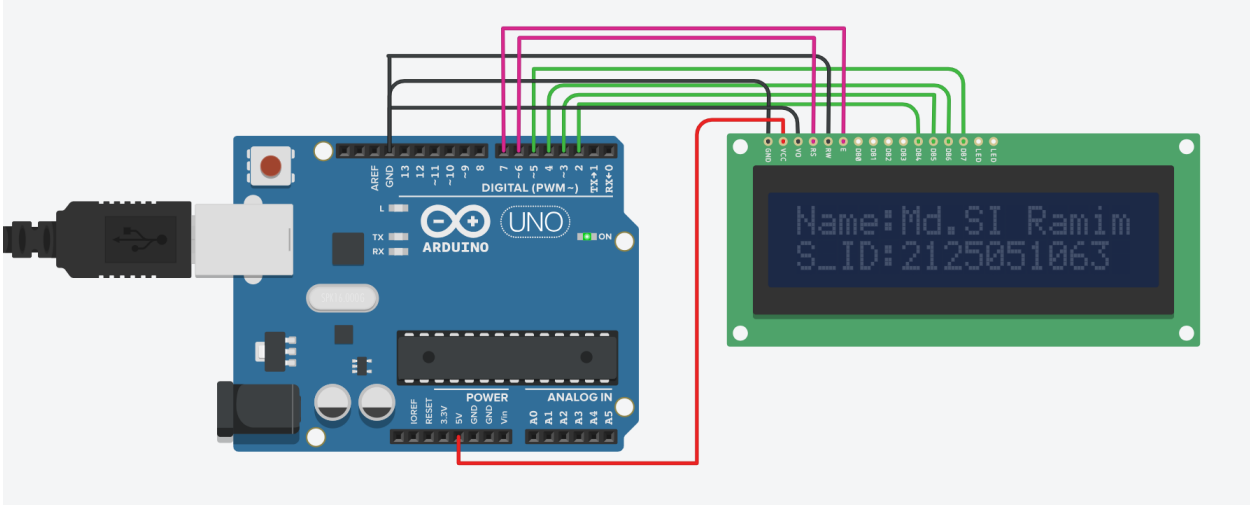
1. Display Information using UNO R3

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. Breadboard
3. 330 Ohm resistor
4. One LED
5. 16*2

Circuit Figure:



Code:

```
#include <LiquidCrystal.h>

char name[] ="Name:Md.SI Ramim";

char student_id[] = "S_ID:2125051063";


LiquidCrystal lcd(6,7,2,3,4,5); // Rs, E, D4, D5 D6, D7
```

```
void setup()
{
  lcd.begin(16,2);

  Serial.begin(9600);
  delay(1000);
}

void loop()
{
  lcd.setCursor(0,0);
  lcd.print(name);
  Serial.println(name);
  lcd.setCursor(0,1);
  lcd.print(student_id);
  Serial.println(student_id);
  delay(2000);

}
```

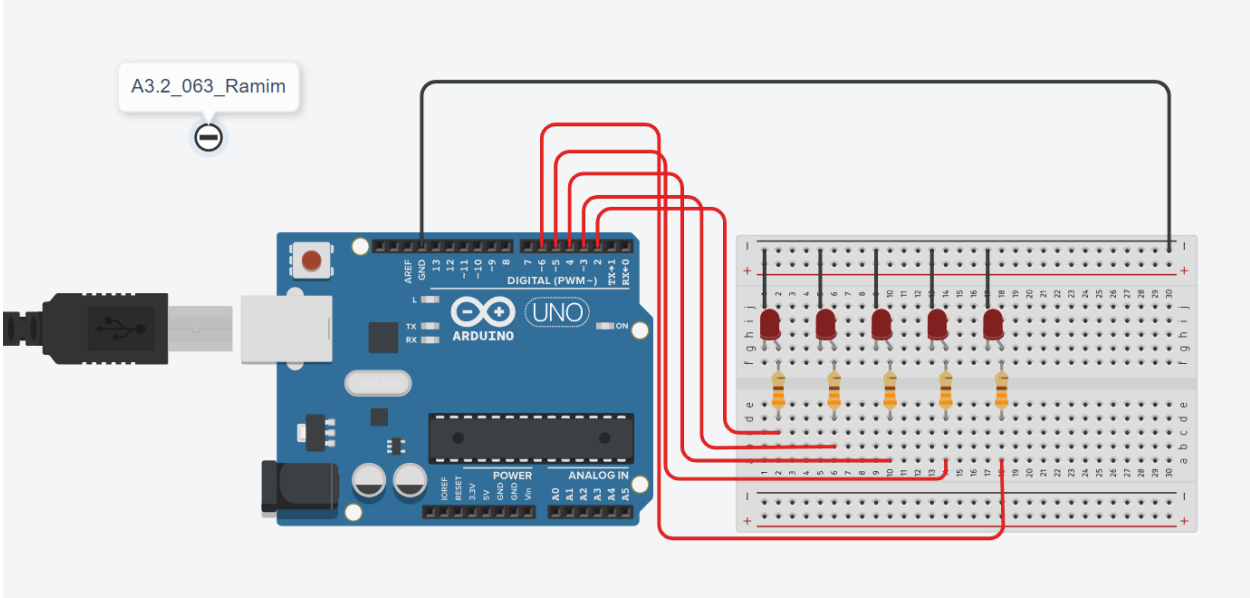
2. Even, odd position light blink

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. Breadboard
3. 330 Ohm resistor
4. 5 LED

Circuit Figure:



Code:

```
// C++ code

int even_pos[] = {2,4,6};

int odd_pos[] = {3,5};

void setup()

{
```

```
 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()
{

 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]);
          delay(1000);
          digitalWrite(even_pos[i], 0);
          delay(100);
  }
}
```

The End