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//Visitor Counter_Auto Light Switch

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String in, out;

int total = 0;

#include <Wire.h>

#include <LiquidCrystal_I2C.h>

LiquidCrystal_I2C lcd(0x27,16 ,2); // set the LCD address to 0x27, set 16 chars and 2 line display

int Relay=6;

int IN=7;

int OUT=8;

int ledGreen=9;

int ledRed=10;


void setup() {

  lcd.init(); // initialize the lcd

  lcd.backlight();

  lcd.setCursor(0,0);

  lcd.print("Visitor Counter");

  pinMode(ledGreen, OUTPUT);

  pinMode(ledRed, OUTPUT);

  pinMode(OUT, INPUT);

  pinMode(IN, INPUT);

  pinMode(Relay, OUTPUT);

  Serial.begin(9600);

  delay(500);

}


void show() {
```

```
  Serial.print(total);
    Serial.println(" people in room.");


}
void loop() {
  if (digitalRead(IN) == LOW) {
    while (digitalRead(OUT) == HIGH) {
    }
    analogWrite(A1, 255);
    Serial.print("Person entered there are ");
    total++;
    show();
    delay(500);
    analogWrite(A1, 0);
    lcd.clear();
    lcd.print("Person In Room:");
    lcd.setCursor(0,1);
    lcd.print(total);
    digitalWrite(ledGreen,HIGH);
    digitalWrite(ledRed,LOW);
  } else if (digitalRead(OUT) == LOW) {
    while (digitalRead(IN) == HIGH) {
    }
    analogWrite(A0, 255);
    Serial.print("Person exited there are ");
    total--;
    show();
    delay(500);
    analogWrite(A0, 0);
    lcd.clear();
```

```
  lcd.print("Person In Room:");
  lcd.setCursor(0,1);
  lcd.print(total);
  digitalWrite(ledGreen, LOW) ;
  digitalWrite(ledRed, HIGH) ;
 }
 if(total ==0)
 {
  digitalWrite(Relay, LOW);
  lcd.clear();
  lcd.print("Nobody In Room");
  lcd.setCursor(0,1);
  lcd.print("Light Is Off");
  digitalWrite(ledGreen, LOW) ;
  digitalWrite(ledRed, LOW) ;
  delay(1000);
 }
 else
  digitalWrite(Relay, HIGH);

  if(total < 0)
 {
  digitalWrite(Relay, LOW);
  total = 0;
 }
}
```