

Project Work

PROJECT TITLE: SMART VISITORS COUNTER

A Smart Visitor Counter is an Internet of Things (IoT) device designed to track and count the number of people entering or leaving a physical space, such as a retail store, library, museum, or any other venue. This technology offers a range of benefits for businesses and organizations by providing real-time data on visitor traffic and behavior. Here's a detailed description of a Smart Visitor Counter IoT system:

Sensors: The core of the Smart Visitor Counter system is the sensors. These sensors can be strategically placed at entry and exit points or within a passage, and they typically use various technologies to detect the presence of people.

Project to develop & our team to satisfy:

1. use Light Sensor ,IR sensor to identify the persons entering the Room.
2. Based on the number of persons,and light intensity the bulb should t controlled.
3. Display the count on LCD, Serial Monitor.

COMPONENTS REQUIRED:-

- bread board
- pir sensors
- lcd
- Arduino uno R3

CONNECTIONS:-

LCD connections:-

- ground is connected with breadboard ground.
- VCC is connected with another pin of breadboard.
- SDA is connected with Arduino digital pin 2.
- SCL is connected with Arduino digital pin 1.

PIR SENSOR CONNECTIONS:-

pir 1:-

- ground is connected with breadboard ground.
- power is connected with breadboard power.
- signal to
arduino digital
pin3.

pir 2:-

- ground is connected with breadboard ground.
- power is connected with breadboard power.
- signal to Arduino digital pin 2

BREADBOARD CONNECTIONS:-

- breadboard gnd to arduinno digital gnd.
- breadboard VCC power to arduino analog 5V pin.

CIRCUIT DIAGRAM FOR THE SMART VISITORS COUNTER:-

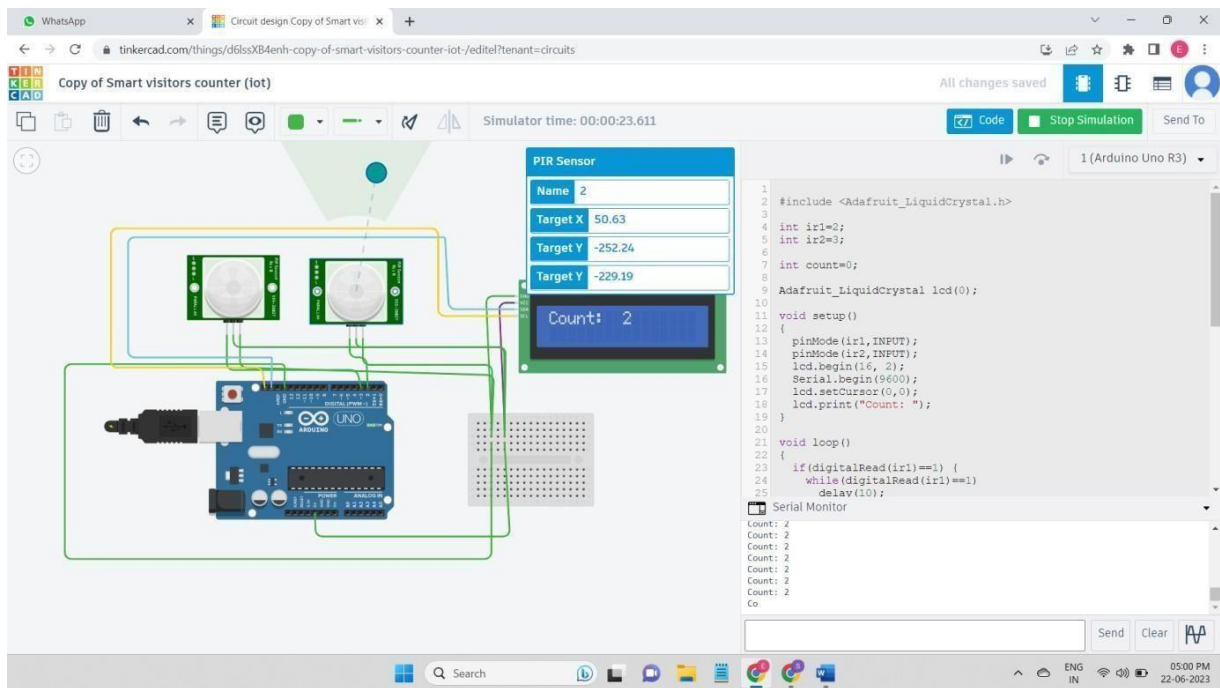


fig : 1 : circiut diagram.

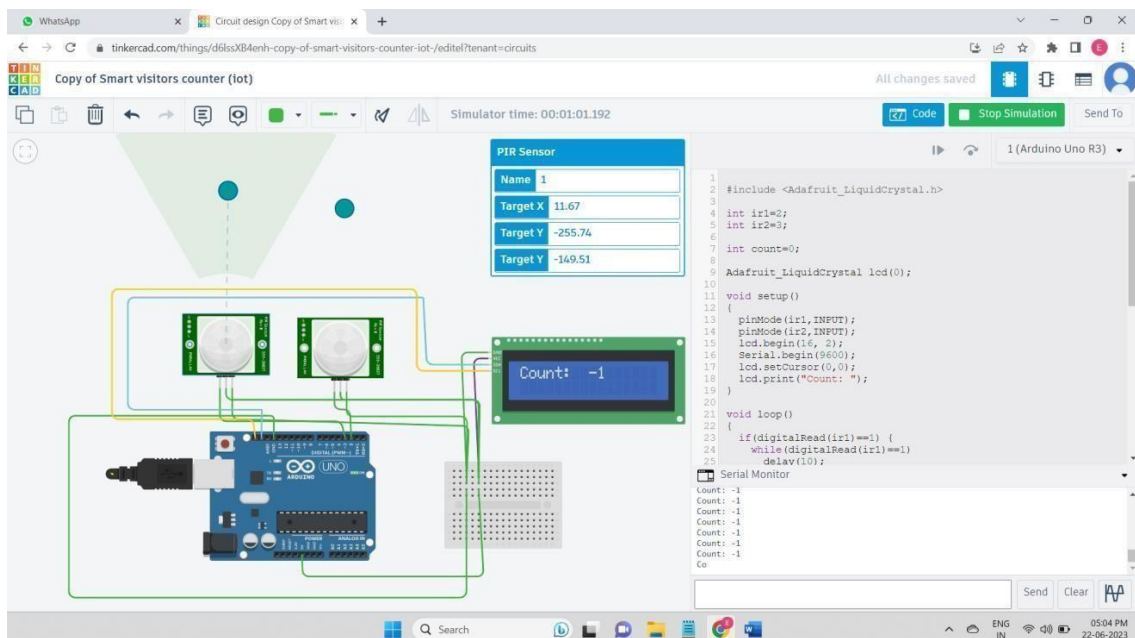


fig 2: working of smart visitors counter**SOURCE CODE:-**

```
#include <Adafruit_LiquidCrystal.h>int
ir1=2;
int ir2=3; int
count=0;
Adafruit_LiquidCrystal lcd(0);
void setup()
{
  pinMode(ir1,INPUT);
  pinMode(ir2,INPUT);
  lcd.begin(16, 2);
  Serial.begin(9600);
  lcd.setCursor(0,0);
  lcd.print("Count: ");
}
void loop()
{
  if(digitalRead(ir1)==1) {
    while(digitalRead(ir1)==1)
      delay(10);
    count++;
    clearDisplay();
    lcd.setCursor(8,0);
    lcd.print(count);
    delay(4000);
  }
```

```
if(digitalRead(ir2)==1) {  
  while(digitalRead(ir2)==1)delay(10);  
  count--;  
  clearDisplay();  
  lcd.setCursor(8,0);  
  lcd.print(count);  
  delay(4000);  
  }  
  Serial.print("count :");  
  Serial.println(count);  
}  
void clearDisplay() {  
  for(int i=8;i<16;i++)  
{lcd.setCursor(i,0); lcd.print(" ");  
  }  
}
```