

# Bidirectional Visitor Counter Using Arduino Uno.

---

**Research Student :**

**Mr. Lamkhade Prashant Shantaram** (Roll no : 43)

**Mr. Ghule Roshan Dattatraya** (Roll no : 18)

**S.Y.B.Sc( Computer Science-2023)**

## **ABSTRACT:**

In this project, let's see how to make a simple bidirectional people counter using IR Sensors and Arduino Uno.

The project uses 2 IR sensors to detect when people are entering the room or exiting the room.

The 2 IR sensors are placed at the door rim or at entrance of any room. The project says whether people are entering the room or exiting along with the exact people count in the room.

## **COMPONENT :**

1. Arduino Uno (With Cable )
2. IR Sensor X2
3. Breadboard
4. Jumper Cable

## **APPLICATION's :**

1. Library
2. To keep a check on the number of persons  
a secured place entering

## **PROGRAMME :**

```
int irPin1=7;
int irPin2=8;
int count=0;
boolean state1 = true;
boolean state2 = true;
boolean insideState = false;
boolean outsideIr=false;
boolean isPeopleExiting=false;
int i=1;
void setup() {
  Serial.begin(9600);
  pinMode(irPin1, INPUT);
```

```
}
void loop() {
  if (!digitalRead(irPin1) && i==1 && state1){
    outsideIr=true;
    delay(100);
    i++;
    state1 = false;
  }
  else if (!digitalRead(irPin2) && i==2 && state2){
```

```

pinMode(irPin2, INPUT);
Serial.println("Entering inside the room");
  outsideIr=true;
  delay(100);
  i = 1;
  count++;
  Serial.print("No. of people inside room: ");
  Serial.println(count);
  state2 = false;
}
else if (!digitalRead(irPin2) && i==1 && state2 ){
  outsideIr=true;
  delay(100);
  i = 2;
  state2 = false;
}
else if (!digitalRead(irPin1) && i==2 && state1 ){
  Serial.println("Exiting from room");
  outsideIr=true;
  delay(100);
  count--;
  Serial.print("No. of people inside room: ");
  Serial.println(count);
  i = 1;
  state1 = false;
}
if (digitalRead(irPin1)){
  state1 = true;
}
if (digitalRead(irPin2)){
  state2 = true;
}
}

```

## CIRCUIT DIAGRAM :

