

Automatic Room light Controller with Visitor Counter



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Project Cost: 5,700

Project Code: 1101

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Project Photographs:



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controller-with-visitor-counter-22.jpg)



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23.jpg)



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room-light-controller-with-visitor-counter-24.jpg)

Download Synopsis of the project

(<https://www.projectsof8051.com/projects/1101-automatic-room-light-controller-with-visitor-counter.pdf>)

Description of the project:

Wastage of electricity is one of the main problems which we are facing now-a-days. In our home, school, colleges or industry we see that fan/lights are kept on even if there are nobody in the room or area/passage. This happens due to negligence or because we forgot to turn lights off or when we are in hurry. To avoid all such situations we have designed this project called **“Automatic room light controller with visitor counter”**. This project (<https://www.projectsof8051.com/>) has two modules, first one is known as **“Digital Visitor counter”** and the second module is known as **“Automatic room light controller”**. The main concept behind this project is known as “Visitor counter” which measures the number of persons entering in any room like seminar hall, conference room, classroom. This function is implemented using a pair of Infrared sensors. LCD display placed outside the room displays this value of person count. This person count will be incremented if somebody enters in the room and at that time lights are turned on. And in a reverse way, person count will be decremented if somebody leaves the room. When the number of persons inside the room is zero, lights inside the room are turned off using a relay interface. In this way Relay does the operation of “Automatic room light controller”. Since this project uses 2 infrared sensors, it can be used as Bidirectional person counter (<https://www.projectsof8051.com/bidirectional-visitor-counter/>) as well.

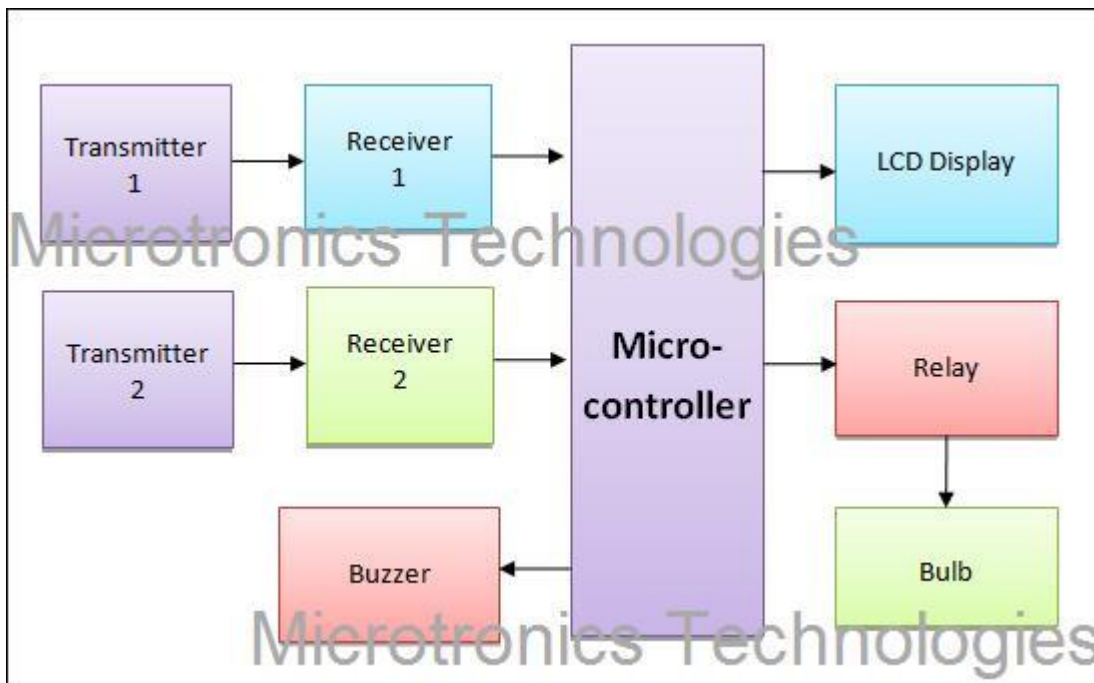
Video of the Automatic Room light Controller with Visitor Counter

Automatic room light controller with visitor counter



Block Diagram of the project:





You will get a CD with this project containing following documents:

1. Project **Report** in pdf format and in word format (.doc or .docx)
2. **Circuit** diagram
3. **PCB** layout
4. Microcontroller **Program** in assembly language
5. **Hex** file of the Microcontroller code
6. **Datasheets** of all the components / ICs used in the project
7. Power point presentation / **PPT** file

Description in detail:

This is one of the best sensor based projects for final year (<https://www.projectsof8051.com/sensor-based-projects/>). And following are the important modules in this project:

1. IR Transmitter: We have implemented the Person counter module using 2 transmitters and 2 receivers. We have used Infra-Red transmitters. The reason behind choosing IR LED is, infrared beams are not visible to human eyes and they are not easily triggered by other sources in the environment. Transmitters used are IR LEDs.

2. IR Receiver: We have used IR sensor as an Infrared receiver. It is an active low device, which means it gives low output when it receives the Infrared rays. So when the IR rays are interrupted by any person then Microcontroller will receive a high pulse from the IR receiver.

3. Microcontroller: This is the CPU (central processing unit) of our project. We have used 89s51 which is a Microcontroller of 8051 microcontroller family. The various functions of Microcontroller are like:

I. Bidirectional Visitor counter section – It is bidirectional because we have used 2 sensors on a single door. The microcontroller does the function of Reading the digital input from two infrared receivers and calculates the number of persons from them.

^

II. Display – Microcontroller sends the person count to LCD so that the person operating this project should read the number of persons inside the room.

III. Automatic Room Light controller section – Microcontroller turns on the Room Light when person count is greater than or equal to one. And turn off lights when the count is zero. This is done by Relay. Since relay is used, you can connect an AC bulb or DC bulb as per your requirement. We will provide a bulb holder to connect AC bulb.

4. LCD Display: We have used 16×2 alphanumeric Liquid Crystal Display (LCD) which means it can display alphabets along with numbers on 2 lines each containing 16 characters. This display should be placed outside the room. It displays various messages like “Person Counter Incremented”, “Person Counter Decrement”, “No of Person in Room = XYZ” here XYZ is the actual person count.

5. Relay: We have used 12 volt relay. Since Microcontroller can not turn on relay directly, we have used a Relay driver circuit. This circuit consists of a transistor which is used to turn on relay through Microcontroller. We have used a SPDT relay. SPDT means Single Pole Double Throw relay. In this project we have provided 2 pin connector as an output of Relay. One of these 2 pins is connected to the Normally open terminal of the Relay which is also known as NO contact.

6. Darlington pair: It is used to increase the current gain. Output of 555 IC is given to the Darlington circuit. And output of Darlington pair is given to IR led, thus it increases current through Infrared LEDs which helps in increasing the range of infra-red rays emitted from IR LEDs.

How to give demo of this project:

- There are 2 transmitters and 2 receivers placed in front of each other. Swap any object (like mobile) or your fingers (not single finger) in front of those sensors.
- Then Microcontroller increments or decrements the counter.
- Once the count is non-zero, the room light is turned on using relay.
- Now swap object in reverse direction then the system decrements the count. And room light is turned off once the count becomes zero.

Enhancement added to this project:

We have added Light Dependent Resistor (LDR) in this project.

Purpose of LDR: Light sensor – LDR will detect the sunlight in the room (or we can say LDR is used to detect daytime)

If there is enough sunlight in the room (which means it is a daytime) then the relay will not be turned on even if the person count is greater than zero. In this mode it will work only as a Person counter to save the electricity and works as **energy saver**. And if there insufficient sunlight in the room then only the relay will be turned on so as to turn on the bulb.

Applications of the project:

1. Digital Visitor Counter can be used in various rooms like seminar hall, conference hall where the capacity of room is limited and should not be exceeded. Project will display actual number of persons inside the room.

2. **“Automatic Room light Controller with Visitor Counter”** can be used in class rooms, study rooms in colleges.
3. Automatic Room light Controller project can also be used in our home because many times we come out of our bedroom or any other room and we forgot to turn off the room light.
4. Bidirectional person counter project can be used in Cinema halls, multiplex, malls as well as in temples to count the number of person entering inside. So that these places should not get over crowded to avoid congestion.

Advantages of the project:

1. Main advantage of this project is that it helps in energy conservation. Because when there is nobody inside the room then lights are automatically turned off.
2. Human efforts to count the number of person is eliminated. Since this project does the automatic person counting with the help of two sensors installed on door frame.

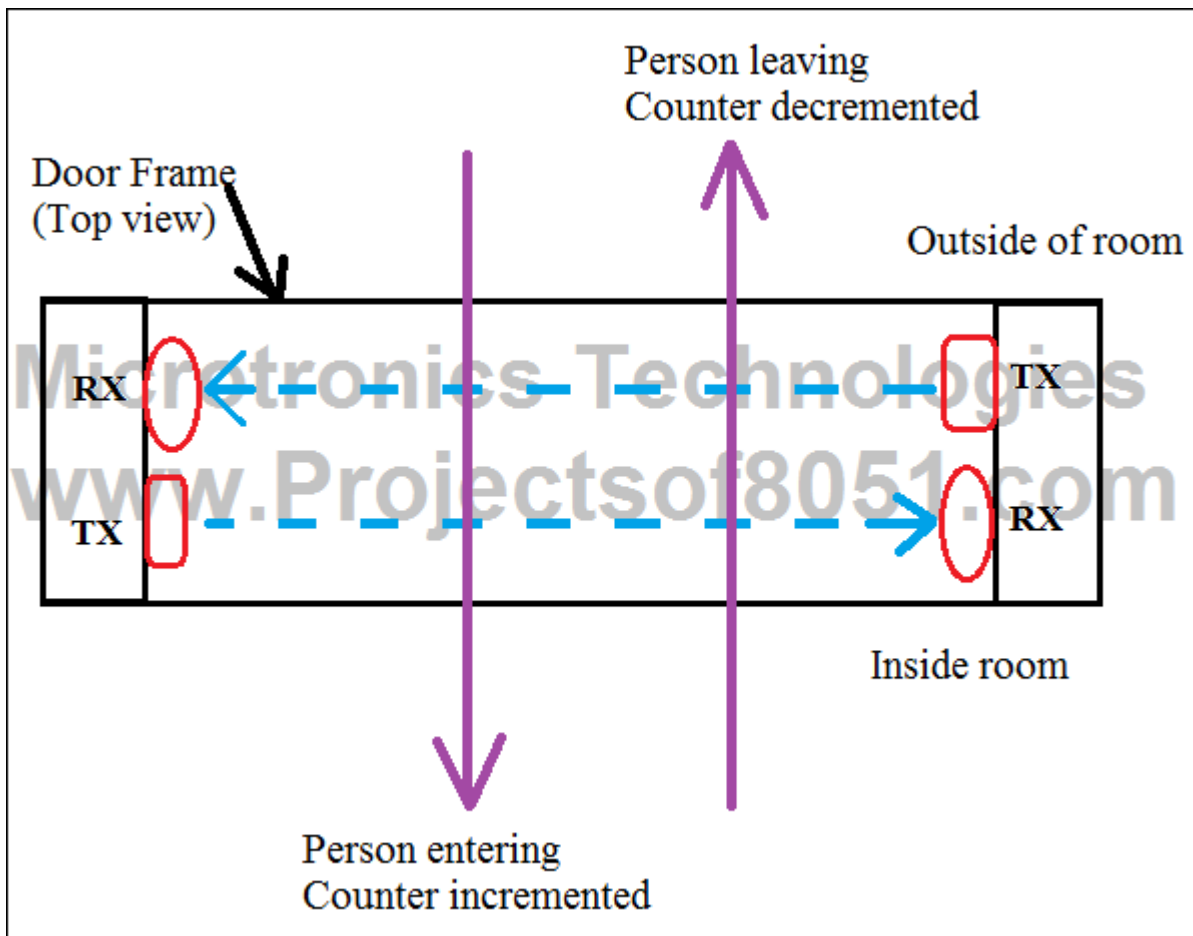
Project Future Development:

1. Voice alarm system can be added to indicate that room is full & persons can't enter inside.
2. We can increase the maximum number of persons that can be counted by implementing the external EEPROM IC.
3. We can send this data to a remote location using mobile or internet.

How to place these sensors on door:

Below is the diagrammatic representation on how the two sensors should be placed on the door frame





Question and answers about this project:

Question: Why you have used Infrared sensors (<https://www.projectsof8051.com/category/sensor-based-projects/infrared-sensor-projects/>) to count the no of persons? What are the advantages?

Answer: Advantage of using Infrared sensor is that IR rays are not visible to human eyes. Also IR rays are not affected by any other sources. For example: If you use LDR as a sensor then it can be easily triggered by sunlight or any other sources of light.

Question: Which type of fan / lights can be controlled using this project? AC or DC ?

Answer: We have used Relay to turn on/off the fan or light. So we can use any type of fan / light. We can either use AC fan or DC fan as well. Relay provides isolation from the Microcontroller circuit. Thus user can use fan operating on 12 volt (CPU fan) or a 230 volts AC fan.

Question: Suppose two people walk into the room in matching steps interval will it sense one intrusion? i.e. if two person enter the room without any gap between them then will Microcontroller will detect 2 person or only 1 person?

Answer: If there is no gap between two persons, then Microcontroller will sense that only 1 person has entered into room. There should be some time delay (at-least half seconds delay between 2 persons)

Question: Are you using any separate counter IC for counting the persons or Microcontroller itself is configured as the counter?

Answer: We have not used any separate IC for the counting. Microcontroller does all the functions. It is central processing unit for the project. It takes input pulses from sensor, counts the person, activate/deactivates the relay.

Question: How the counting of people using transmitters & receivers works ?

Answer: We have used to 2 pairs of Transmitter and receiver. These should be placed on the door frame, in-front of each other. If a person enters the room then first receiver will cut and then second receiver will cut. Then Microcontroller will increment the count. And if any person leaves the room then second receiver will cut and then first receiver will cut. Then Microcontroller decrements the count.

Question: Concerning pets in the room, are they likely to trigger the system? What are the ways of avoiding false triggering?

Answer: Yes, your Pets can trigger the sensors. To avoid this situation, sensors should be placed at the higher level from ground. You can keep them at 4 feet from ground. But 1 more thing, if your pets jump 4 feet from ground then this will trigger the sensor:-):D1

Question: Can we use RFID reader & RFID cards in this project along with the Infrared sensors ? Is it possible that in entry operation, the RFID will count and in the exit operation, the infrared will count?



Answer: Yes, this is possible. We can implement this project using RFID reader. Whenever person enters the room, he/she will show the RFID card to RFID sensor and the counter will count as one but the infrared entry will not be activated. But when the person is leaving the room, the infrared exit operation will be activated and the counter decrements by one and the lights will turn off if nobody is in the room.

The RFID sensor will be placed outside the room for the Entry and the infrared sensors will be placed at side of the door for the exit operation. Meaning, if the person enters the room and he/she shows the RFID card to RFID sensor, the RFID will activate but it disregards the infrared entry operation. But leaving the room, the infrared will do the task and the counter decrements.

Question: If this project is used during daytime then lights will always turn on & off and this will lead to wastage of electricity. How to overcome this situation? Or can't this project be used during day time?

Answer: In some specific seminar hall, conference rooms and study rooms, sunlight can not reach in daytime as well. This is to give some presentations on projector or big screens. In these cases lights are turned on even in daytime. In other cases, where sunlight is enough and lights are not required in day time, we can turn off the project so it will not function. And then we can turn on the project in evening time.

Question: I tried to replicate the circuit of the transmitter and receiver on a bread board using the given components. The output of both transmitters was adjusted to 38 KHz. But the IR receiver is not giving active low output. What can be the problem?

Answer: Use a potentiometer to adjust the frequency of transmitter circuit. Also check the connections of TSOP1738 IR receiver circuit, sometimes problem could be in receiver.

Question: In this project can we use any sensor other than TSOP1738? Any animal like dog may also enter the room & will get counted by the counter, this will lead to an error. Can u suggest any other sensors which will detect only human being or human body?

Answer: TSOP1738 IR sensor is the most suitable sensor for this project.

Question: I have prepared the circuit of 555 timer which is giving output of 38khz. Problem is that the Red LED connected to the IR receiver is always active (always turned on) and only blinks when I try to cut the infrared beam from the arrangement of IR transmitter and receiver which you sent me. What can be the problem?

Answer: I have reviewed circuit and have 2 suggestions. First one, Capacitor connected to Pin 5 of IC555 should be 103 pico Farad. And the third terminal of potentiometer RV is left open. It should be connected to second terminal of variable resistor RV. Then set the resistance between pin 7 and 6 to 11.4 kohm. If the circuit is still not working properly then try varying the potentiometer, reduce the resistance. LED should turn off when Transmitter is facing towards Receiver.

Question: Can we get 120 volt as output of the relay because here in Canada we have lights works in 120 volt ? The transformer works at 240V but here in Canada we have 120V so do we change the transformer to 120v if yes what transformer we need? Secondly is it possible if we remove the transformer and directly supply 9volts to the circuit? If yes then at what point we can connect the DC supply because then we gave to skip the dc converter circuit?

Answer: Relay does not give any voltage output. Relay acts as a switch. About transformer: you can use 9volt/500 milliampere transformer. And if you want to operate this project on regulated DC supply then you can remove transformer and you can directly give 9 volts supply. You have to remove transformer wires and at the same point you can give 9 volt DC supply.

Question: Can this model hypothetically sense whether a person is going in or out of a room? Can the IR sensors detect obstructions only, not the direction?

Answer: Yes, IR sensors detect the direction. This project has 2 sensors. So when person goes in 1st sensor is cut and then 2nd sensor is cut. Thus Microcontroller increments the count. I have added image of how to install sensor on door on this webpage: (see at the end/bottom of page)

Question: Doubt concerning the placement of IR sensor in the door frame. In the website you have given a chart showing the placement of the circuit, in that picture the transmitter1 and receiver2 is on one side of the frame and vice versa. Why is it so? Do you have any specific reason? Can we place TX1 & TX2 on the same side?

^

Answer: You can place Tx1 & TX2 on same side but it will reduce the efficiency of the receiver as both IR receivers will receive the rays from both transmitters, so if the distance between 2 receivers on one side of door is less then chances are there that it will not identify that person is entering the room.

Question: I too like this project. It's a very great idea!!! But i have a question. During night time when we go to sleep will the lights be ON or we should TURN OFF it?

Answer: As per the current functionality of the project, lights will be turned on when there is one or more than one person in room. So if you don't need lights when you are going to sleep, you should turn off the project.

Question: what if i modified this project by adding LDR. so the light will be turn on when the LDR detect darkness. And is the microcontroller need to be programmed ?

Answer: We have provided in the advanced version of this project. LDR will detect the sunlight. So the relay(light) will be turned on when there is darkness. And the microcontroller is pre-programmed.

Question: Does it works for same entry ,exit door..????

Answer: Yes it works for the rooms which has only 1 door for entry and exit.

Question: when a cat or any other animals comes across the ir sensor , will light remain on or off?

Answer: Sensors does not differentiate between a human being and an animal. So if any animal crosses the sensor then the visitor counter will be incremented or decremented (depending on the direction) and then lights will be turned on if count is greater than zero.

Question: Can you please explain the use of 555 Timer ICs in the project?

Answer: 555 Timer IC is used as a driver circuit for IR LEDs.

Question: What Will happen when the person enters the room and passes through first sensor but for any reason he will comes back before reaching to the second sensor??

Answer: In such cases the counter will not be incremented. There is a waiting period of 5 seconds. If the second sensor is not interrupted within 5 seconds then the waiting period gets over and action is cancelled.

Question: Hi.... What is the use of buzzer in this project...

Answer: Buzzer will be turned on when maximum limit of person count has reached. Suppose a seminar hall has seating capacity of 100 then only 100 people should be allowed inside room. Whenever 101th person enters then buzzer should be turned on to indicate that maximum capacity has reached. In this project we have set the limit to 15 for demo purpose.

Question: can we use LDR in this circuit so when sunlight is there lights will remain off

Answer: We have already implemented this part as part of enhancement in our circuit.

Question: Hi sir, this project is almost well for us but i want to know about disadvantages for this project. Thank sir.

Answer: As mentioned in the description above, limitation can be, "when two people enter without gap in between them, then system will not be able to detect it" and another limitation is of maximum person count which is 255.

Question: Which sensor will be used to differentiate between human body and animal body?

Answer: Its quite difficult to get such sensor.

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76 thoughts on “Automatic Room light Controller with Visitor Counter”

1.

supraja says:

when did the research on this project was started and by whom?

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=742#respond)

2.

Mohamad Nazreen says:

Hi im from malaysia, if i order this project, when can i get it?

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=1618#respond)

◦

Microtronics Technologies says:

Hi Mohamad Nazreen, you can get this project in 7 working days.

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=1621#respond)

3.

harit says:

can anyone tell whether we can use a human sensing system to detect a person inside the room ???

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=3080#respond)

◦

Microtronics Technologies says:

Hi harit, PIR sensor can be used to detect human being / person inside the room. But this project does not have PIR sensor. We have used 2 infrared sensors and these are installed on door.

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=3108#respond)

4.

Devang b patel says:

Sir is any sensor to detect light brightness and then on light at day time or keep it off At day time with blood sensor and temperature sensor
Can u give any comment about this .

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=4091#respond)

◦

Microtronics Technologies says:

Hi Devang b patel, we have already included Light sensor to detect daytime. We can even add Temperature sensor as per your requirement. But please send details of your customized requirement to our email id.
However it is not possible to add blood sensor in this project.

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=62406#respond)

5.

mbavu says:

^

am getting started with some project in the same line with this only that mine has to consider all the appliances in the room e.g. TV, radio set, fan, flat iron, computers, chargers. this will give some time lag/allowance between the occupant living the room and switching off. so my question is how viable this is?

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=4141#respond)

o

Microtronics Technologies says:

Hi mbavu, yes this is feasible. We have provided a relay with this project. It can be used to turn a single device or many devices at a time. Also we can provide a time lag between switching off devices.

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=10955#respond)

6.

Name says:

Hi Guys very useful content.

Can u guys make a tutorial to detect room entry alert system using alarm with clear explanation ???

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=4350#respond)

7.

guhan says:

Sir i am guhan doing my BE. we are doing miniproject in our college. I dont like to buy some projects in some other project center. So i think some concept and when i take some notes related to my project through internet i have found yours.....the same concept "automatic on\off lights when there are person respectively".... i am fan of yours...:-)

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=4475#respond)

8.

Naveen says:

How to differentiate two transmitter from their respective receivers?

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=5283#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=5283#respond)

o

Microtronics Technologies says:

Hi Naveen, Two transmitters should have sufficient distance between each other so that they will not interfere with each other. We have to take precaution that the IR rays of first transmitter should fall only on first IR receiver and not on second receiver.

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=62391#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=62391#respond)

9.

naomi debrtsion says:

HI GUYS.....i am impressed by ur work i am writing this because i need ur help i am working with the same project on my final year project,,i am computer engineering student in Eritrea(east Africa).can you help me with some questions???thank you for this opportunity

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=6885#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=6885#respond)

o

Microtronics Technologies says:

Hi naomi debrtsion, please post your questions.

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=10951#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=10951#respond)

10.

khushboo thakare says:

how can we implement this project by sending the data to a remote location using mobile or internet?

plzzzz reply as soon as possible.....

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=10836#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=10836#respond)

o

Microtronics Technologies says:

Hi khushboo thakare, we can implement computer interfacing or GSM modem interfacing with this project. GSM modem can be used to send SMS to a mobile placed at remote location. And PC interfacing can be used to send data to computer then a computer application can be developed to send this data to internet.

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=10950#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=10950#respond)

11.

Roshan says:

Sir, is there any kind of programming also involved with the micro-controller 89s51 in this project? If yes then are programming for counters and for LCD Displaying separately?

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=13368#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=13368#respond)

o

Microtronics Technologies says:

Hi Roshan, yes 89s51 microcontroller programming is involved in this project. Although there are different functions for LCD and person counter modules, but they are combined in a single program.

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=62440#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=62440#respond)

12.

shanthini says:

hi i m shanthini.i m doin BE(EEE).i want some innovative,new idea for my miniproject. please send some project.i have another doubt,if i use PIR what will be the change..

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=14046#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=14046#respond)

o

Microtronics Technologies says:

^

Hi shanthini, PIR Sensor has large range as compared to normal IR sensors. So it can detect the person but it gets difficult to understand if the person is entering in the room or leaving the room.

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=62442#respond)

13.

Dilawer says:

Greetings..... mn "Automatic room light controller with visitor counter" purchase krna chta hun, bt with modfication ky sath.i.e mn LCD ky data ko remote location py via GSM modul ky through bhjna chta hun.

Kaya ap ya bna saky hn??

plz reply fast.....

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=14986#respond)

o

Microtronics Technologies says:

Yes, we can send the data to remove location via GSM modem

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=151878#respond)

14.

anjali says:

1) why is IR sensor the best choice in this case...why not proximity sensor or any other sensor??/

2) what other alternative do we have for the Relay that we are using???

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=15953#respond)

o

Microtronics Technologies says:

IR sensor are low cost and can not be false triggered. Relay are best for turning on devices from 5V DC to 230V AC supply.

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=151882#respond)

15. *kashaf* says:
why this project can't work for 2 or more persons while entering in room at same time?

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=20211#respond)

- *Microtronics Technologies* says:
Hi kashaf , microcontroller just reads the output signal from IR receiver sensor. And this sensor does not recognize the number of person. It just responds to the IR rays falling on it. So if two or more person enters in room without any gap between them then it will treat as a single pulse. And this pulse will be given to microcontroller for further processing.

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=62448#respond)

16. *Jridi hamza* says:
plz what's the IR transmitter reference that you used in this project??
thank you 😊

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=23939#respond)

- *Microtronics Technologies* says:
Hi Jridi hamza, IR transmitters are normal Infrared LEDs.

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=62451#respond)

17. *shradha* says:
can this project will work for 5 rooms simultaneously and how???

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=30635#respond)



o

Microtronics Technologies says:

No, this project can not work for multiple rooms simultaneously. You have to install one project for each room.

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=151874#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=151874#respond)

18.

anushka says:

hi guys ... i'm a btech student and i'm planning to do this project for my mini project. but our professors insist that we submit the project without using any microcontrollers. is it possible to implement the same idea without the use of any programmable ICs ??? please help,, change of project is not allowed

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=33174#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=33174#respond)

o

Microtronics Technologies says:

Hi Anushka, This project can not be implemented without microcontroller. Since it is really difficult to interface / drive LCD display with analog circuit.

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=33424#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=33424#respond)

19.

bhakti2 says:

can i interface dc motor on this object counter because when no. of entering person leave the room then door automatically closed

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=35407#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=35407#respond)

o

Microtronics Technologies says:

Hi bhakti2, yes we can connect DC motor. However for this we need to modify the circuit. We have already developed another project "Person counter and Password detector", for more information, please visit this webpage:

<https://www.projectsof8051.com/person-counter-and-password-detector-system/> (<https://www.projectsof8051.com/person-counter-and-password-detector-system/>)

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=62455#respond)

20.

Elaine Lombog says:

hi, would it possible if I add temperature control in this project?

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=36133#respond)

o

Microtronics Technologies says:

Hi Elaine Lombog, yes we can add temperature control. However for this we need to modify the circuit. I would recommend to add a comparator instead of a Analog to digital convertor.

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=62456#respond)

21.

papun says:

sir , can we connect at a time 1fan+2light+1tv with this project ?

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=45050#respond)

o

Microtronics Technologies says:

Hi papun, yes we can connect these devices to a single relay. But then all these devices will be turned on or off at the same time. If you want con control them individually then we need to modify the circuit to add 2 more relays.

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=62457#respond)



22. *Mukta* says:
I have a question, have you calculated how much energy is saved by implementing this project. Can you provide an approx. quantified value in terms of % or Watts, how much energy is saved?

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=53410#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=53410#respond)

23. *Felix* says:
since the counter will either increment or decrement when there is obstruction on the sensors, how can it differentiate between the person that is entering or leaving the room?

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=56773#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=56773#respond)

- *Microtronics Technologies* says:
Hi Felix, please refer to the image shown under "How to place these sensors on door" section.
When person enters room then sensor sequence will be as below:
Initially first sensor will be activated and later second sensor will be activated.
And in case of person leaving the room, sensor sequence will be as below:
Initially second sensor will be activated and later first sensor will be activated.

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=62545#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=62545#respond)

24. *Lakshmi* says:
How to check if IR sensor is working or not? and then transmitter and receiver circuit if both have IR sensor or not?

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=65046#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=65046#respond)

- *Microtronics Technologies* says:

These details are mentioned in the project report. You will get all documents after purchasing the project.

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=151881#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=151881#respond)

25.

palak says:

I have a doubt..how actually the IR transistors work over here?

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=70406#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=70406#respond)

26.

kinnu says:

what is the range of these IR sensors?

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=70669#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=70669#respond)

27.

Arif says:

Hi I am Really looking forward to purchase this project... but i am not getting how does both the Tx n Rx will count the person entering and leaving the room with same door for entrance and exit....can u please tell me the idea behind working of both the Tx and Rx for person counting...

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=110032#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=110032#respond)

o

Microtronics Technologies says:

Please refer to description and image given in the project details section above. Counter will increment if first sensor is interrupted first and then second sensor. And counter will decrement if second sensor is interrupted first and then first sensor.

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=151880#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=151880#respond)

28.

encikpatrick says:

how about the price of this project ? i'm from malaysia , how can i get this project ?

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=128832#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=128832#respond)

o

Microtronics Technologies says:

Yes, we can ship this project to Malaysia. Extra shipping charges are applicable for delivery out of India. Please email us your address in detail. We will reply you total cost including shipping charges.

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=151873#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=151873#respond)

29.

MOHAMMAD SARFARAZ says:

can we modify this project by using the RF ID READER?

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=144239#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=144239#respond)

o

Microtronics Technologies says:

Yes, we can do that. Actually we already have 2 such projects.

Project code – 1520 — RFid Based Person counter

and Project code – 1521 — RFid & IR sensor Based Person counter with automatic room light controller

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=151871#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=151871#respond)

30.

ramya says:

i have a doubt...we r using this project for turning on/off of fans and lights....but if we want to use this deviceit should be continuously supplied with power.. then what is the use.....

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=149273#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=149273#respond)

o

Microtronics Technologies says:

This project requires power. But it is less compare the the power consumption of Lights and Fans. And take an example of a big seminar hall. Where there are like 15 / 20 bulbs and fans. In such places the power consumption of project is negligible as compare to the electricity wastage.

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=151870#respond)

31.

Rajkumar says:

Is the programme is alredy dumped by you ? Or we have to dump ?

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=160228#respond)

o

Microtronics Technologies says:

Hi Rajkumar, the microcontroller IC is already programmed.

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=163398#respond)

32.

sunil kumar says:

i am making the project of control the various home appliance with the help of plc so suggest me
first is what type of sencer using
and other is what type of fan and motor used and how to count the person entered in room plzz suggest me

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=165835#respond)

33.

Bijan says:

^

Hey, If some enters half (1st sensor) and return back, then another enters from other side half (2nd sensor), It could increase or decrease the count! so how you have managed this problem?? thanks

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=175587#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=175587#respond)

34.

B.GANESH says:

suppose a person cut the first sensor and takes u turn before cutting the other sensor,will the project works.

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=178405#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=178405#respond)

o

Microtronics Technologies says:

Hi B.GANESH, yes the project will work. In this case it will not increment or decrement the count.

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=179501#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=179501#respond)

35.

prathima devi says:

NICE PROJECT

HOW ABOUT THE POWER CONSUMPTION WHEN WE ARE GOING OUT FOR SUCH LONG HOURS.....

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=179266#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=179266#respond)

36.

DIVYANSHU says:

sir i want this project so can you provide your contact information and email id

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=180212#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=180212#respond)



37. *Divyanshu Mahato* says:
Hello sir I am a 9th standard student and was also thinking of this type of project only ,
so I thought to check out that whether it is designed earlier or not this project is very
helpful for me and I wanted to ask you that should i use this project to present in the
science project exhibition or competition???

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=181967#respond)

38. *naga akhil es* says:
sr can it sense both entering and leaving of a person simultaneously

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=184225#respond)

- *Microtronics Technologies* says:
Hi naga akhil es,
It can not detect this situation. There should be only 1 person entering or
leaving.

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=188798#respond)

39. *Nagraj* says:
can u plzzz list all disadvantages?

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=199205#respond)

40. *Lucas mwita* says:
Hi am Lucas mwita from Tanzania if I wanna order this project how many day it take to
get it

Reply (/automatic-room-light-controller-with-visitor-counter/?replytocom=210078#respond)

o

Microtronics Technologies says:

Hi Lucas mwita, you will get this project in 8 to 10 days in Tanzania

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=210936#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=210936#respond)

41.

RAJ says:

I want to know that if you are using controller 8051 is there any program written on it ?

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=210469#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=210469#respond)

o

Microtronics Technologies says:

Hi Raj, yes there will be a program (HEX code) downloaded into the controller.

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=210546#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=210546#respond)

42.

Jambulingam Hemanth says:

Hi Sir, I found this project interesting although the what will happen if the two persons enter and exit at the same time then there will be a collision between the entry and exit. how to overcome it? and how it will differentiate in and out of person?

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=196049#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=196049#respond)

43.

Ch.anupama says:

Sir can we increase maximum count of people upto 20 numbers 1 light should glow...
Can we do it..? wat the changes we have to do for that

[Reply \(/automatic-room-light-controller-with-visitor-counter/?replytocom=214578#respond\)](/automatic-room-light-controller-with-visitor-counter/?replytocom=214578#respond)

o

Microtronics Technologies says:

Reply (/automatic-room-light-controller-with-visitor-counter/?replyto=214635#respond)

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