For more Project details visit:
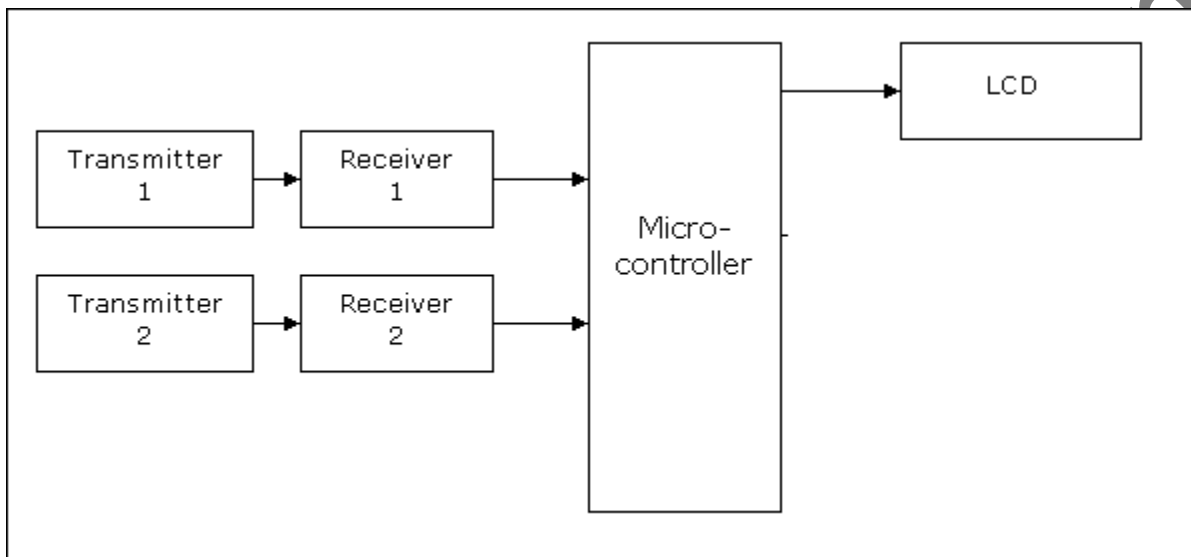http://www.projectsof8051.com/bidirectional-visitor-counter/

Code	Project Title
1102	Digital Visitor Counter

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Synopsis for
Digital Visitor Counter

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1. Introduction

Many times we need to monitor the person/people visiting some place like Shopping mall / temple. To provide solution for this we are going to implement a project called "Digital Visitor Counter". This project has a "Visitor counter". Main concept behind this project is to measure and display the number of persons entering in any room like seminar hall, conference room. LCD display placed outside the room displays number of person inside the room. This project can be used to count and display the number of visitors entering inside any conference room or seminar hall. This works in a two way. That means counter will be incremented if person enters the room and will be decremented if a person leaves the room.

2. Block Diagram

3. Block Diagram Description

1. Transmitter: We are going to implement the Person counter module using 2 transmitters and 2 receivers. We are going to use Infra-Red transmitters because infrared beams are not visible to human eyes. Transmitters used are IR LEDs

2. Receiver: We are going to use an Infrared receiver. It is an active low device which means it gives low output when it receives the Infrared rays.

3. Microcontroller: This is the CPU (central processing unit) of our project. We are going to use a microcontroller of 8051 family. The various functions of microcontroller are like
I. Reading the digital input from two infrared receivers and calculate the number of persons from them. II.

Sending this data to LCD so that the person operating this project should read the number of persons inside the room

4. LCD: We are going to use 16x2 alphanumeric Liquid Crystal Display (LCD) which means it can display alphabets along with numbers on 2 lines each containing 16 characters.

Application and Advantage:

1. Can be used in various rooms like seminar hall, where the capacity of room is limited and should not be exceeded. Project will display the actual number of persons inside the room.
2. Can be used in conference room, study rooms in colleges.

Future Development:

1. We can send this data to a remote location using mobile or internet
2. Voice alarm system can be added to indicate that room is full & persons can't enter inside.