
VISITOR COUNTER WITH METAL DETECTOR ENHOUSED ENTRY, EXIT AND PRESENT COUNT

ABSTRACT

This project is aimed to design a system which detects the metal type items by using metal detector and display the count of number visitors visited at a place by using IR sensor.

This project yields an effective solution to count the number of visitors visited any particular place/historical place and if any person enters into the place with metal it was detected by using Metal detector. The updated count will is displayed on the display unit LCD [Liquid Crystal Display]. IR sensor has both transmitter and receiver pair. IR transmitter continuously emits the IR rays and the receiver activated when the IR rays falls on it.

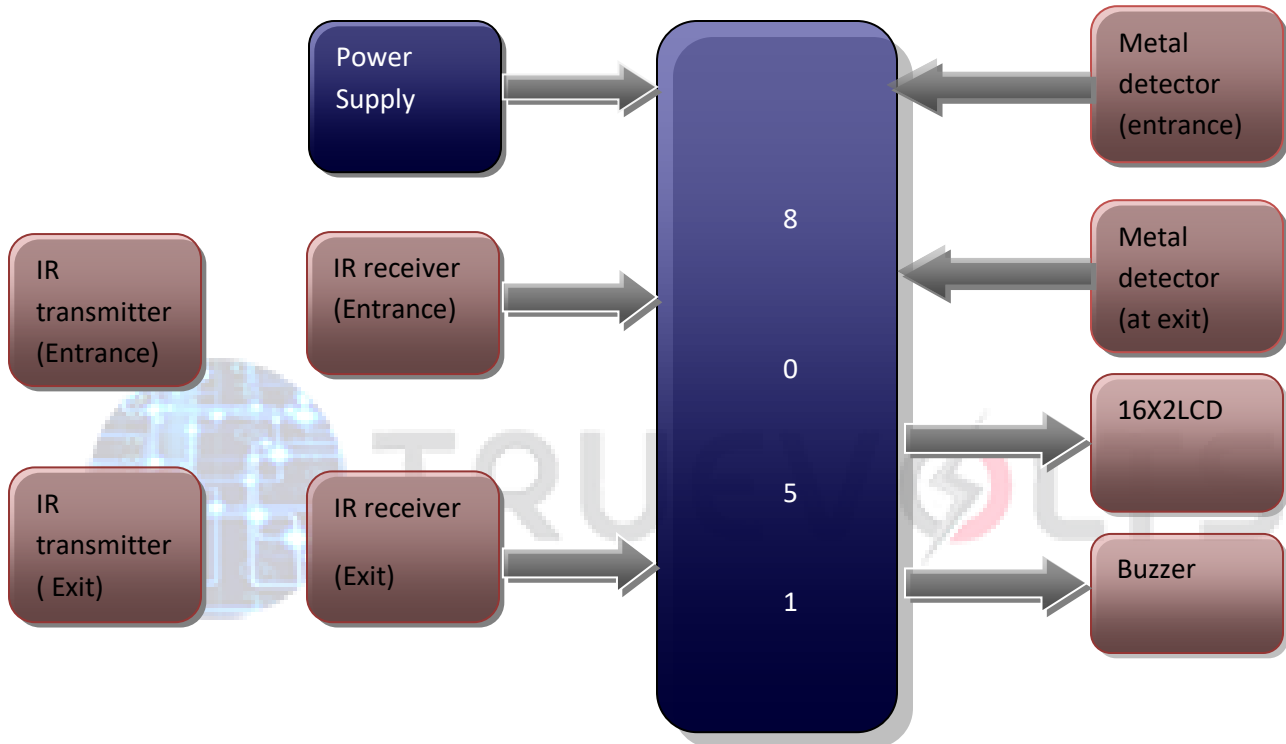
We will fix this IR sensor and metal detector at the entrance and exit of the particular place such that if any obstacle came in front of the transmitter, the emitted IR rays fall on the IR receiver. The receivers at entrance and exit are interfaced to the controller [AT89C51]. Whenever the sensor [IR receiver] at the entrance is activated the count corresponding to the number of people inside the room will be increased and in opposite case if IR receiver at the exit is activated and count will be decreased and if any person having metal at the entrance and exit it was detected by the metal sensor the particular person count number and a pre defined message “metal detected” will be displayed on LCD and whenever the metal is detected by metal sensor buzzer will turn on. In both cases the count will be updated on the LCD.

This project uses regulated 5V, 500mA power supply. 7805 three terminal voltage regulator is used for voltage regulation. Full wave bridge rectifier is used to rectify the ac output of secondary of 230/12V step down transformer.

APPLICATIONS

- Shopping malls
- Security systems

.BLOCK DIAGRAM:



POWER SUPPLY BLOCKDIAGRAM:

