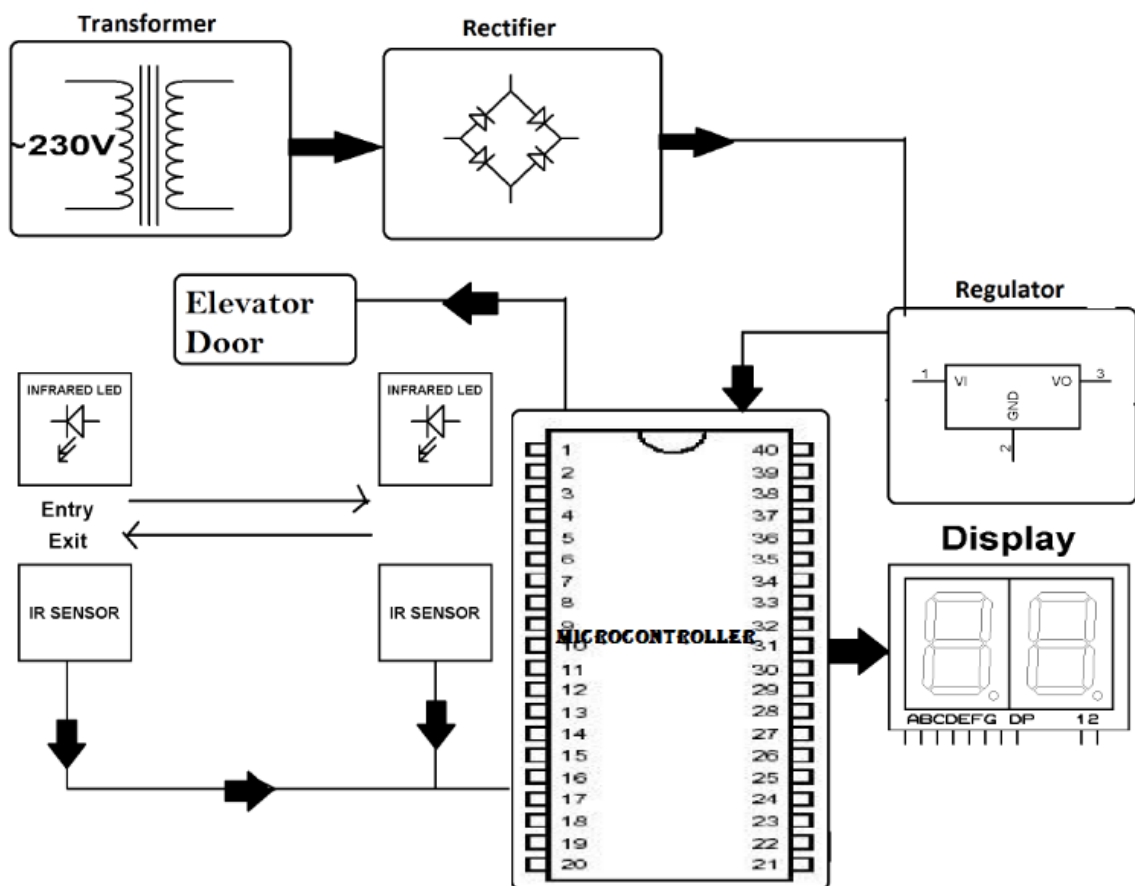


Automatic Elevator With Overload Alert Using Microcontroller

Introduction

The main aim of this Automated Elevator with Overload Alert is to prevent the elevator from any damage. This system makes use of sensors for sensing when a person enters the elevator and automatically increments the counter. This count is displayed on the 7 segment display to indicate the number of people in the elevator at a particular time. The system makes use of infrared sensors which is placed at a distance from the elevator in the opposite direction. as soon as a person enters the elevator, the sensors senses it and increments the counter and in the same way decrements the counter when a person exits the elevator. all this information is fed by the microcontroller. This system also makes use of buzzer. this buzzer starts ringing as soon as the number of people in the elevator exceeds the limit. The buzzer only stops when the numbers of people exit the elevator so as to bring the counter number less than the limit.

Block diagram



Component

- Hardware Specifications
- MICROCONTROLLER
- Mini Door
- 7 Segment Display
- I R Transmitter Receiver
- Buzzer
- Crystal Oscillator
- Resistors
- Capacitor

- Transistors
- Cables and Connectors
- Diodes
- PCB and Breadboards
- LED
- Transformer/Adapter
- Push Buttons
- Switch
- IC
- IC Sockets

Software Specifications

MC Programming Language: C

Advantage

- Automatic door opening and closing helps to increase comfort level.
- Load cell which also functioning as occupancy sensor can result in reduction in energy usage.
- Oxygen level monitoring adds extra safety feature in case whenever there is any failure in supply system.
- Emergency alarm can reduce accidents and risk to human life.