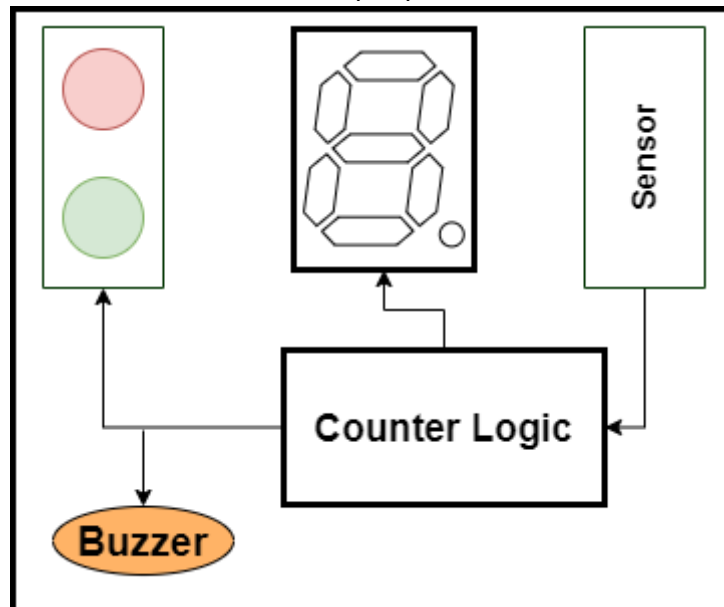


- Construct a digital circuit for an elevator which can carry a maximum of 9 people. Use a digital IR sensor to detect a person and the people count must be displayed on a single seven segment display. The green LED must turn on if the people count is less than 9 and the red LED and a buzzer must turn on if the people count is more than or equal to 9.



#### INSTRUCTIONS:

- You may use an IR Line sensor module to count detect a human.
- You may use 74193 counter IC in up counting mode to implement the counter.
- The counter value must be displayed in a seven-segment display digit.
- Use an on/ off switch to power on the circuit.
- Use 7447 BCD to 7 segment decoder IC to convert binary data into 7 segment digit.
- Use a USB cable to connect a power source.

#### Marks Breakdown:

Building and soldering the PCB	10 Marks
Neatness of soldering	5 Marks
Implementing Counter	20 Marks
Implementing the Red and Green light logic	10 Marks
Implementing 7 segment display	10 Marks
Overall performance of the circuit	15 Marks
Explanation of the circuit	30 Marks
<b>Total :</b>	<b>100 Marks</b>