Don Bosco Institute of Technology, Mumbai: 400070
Department of Electronics and Telecommunication Engineering
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Project title : SMART REVERSE CAR PARKING SYSTEM

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SMART REVERSE CAR PARKING SYSTEM

PROJECT OBJECTIVE

1 . If you are a new driver then it is very difficult to judge the distance while parking the car.

2 . Smart car parking system solves this problem by indicating the distance with the help of three LED's. We can easily arrange this system at the back side of the car.

3 . This system operates with 12V rechargeable battery. This project explains you how to design Reverse parking sensor.

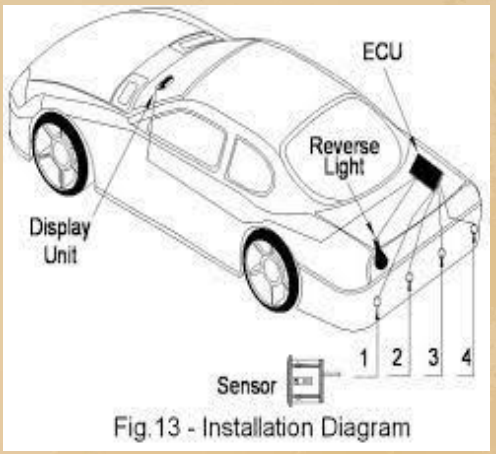
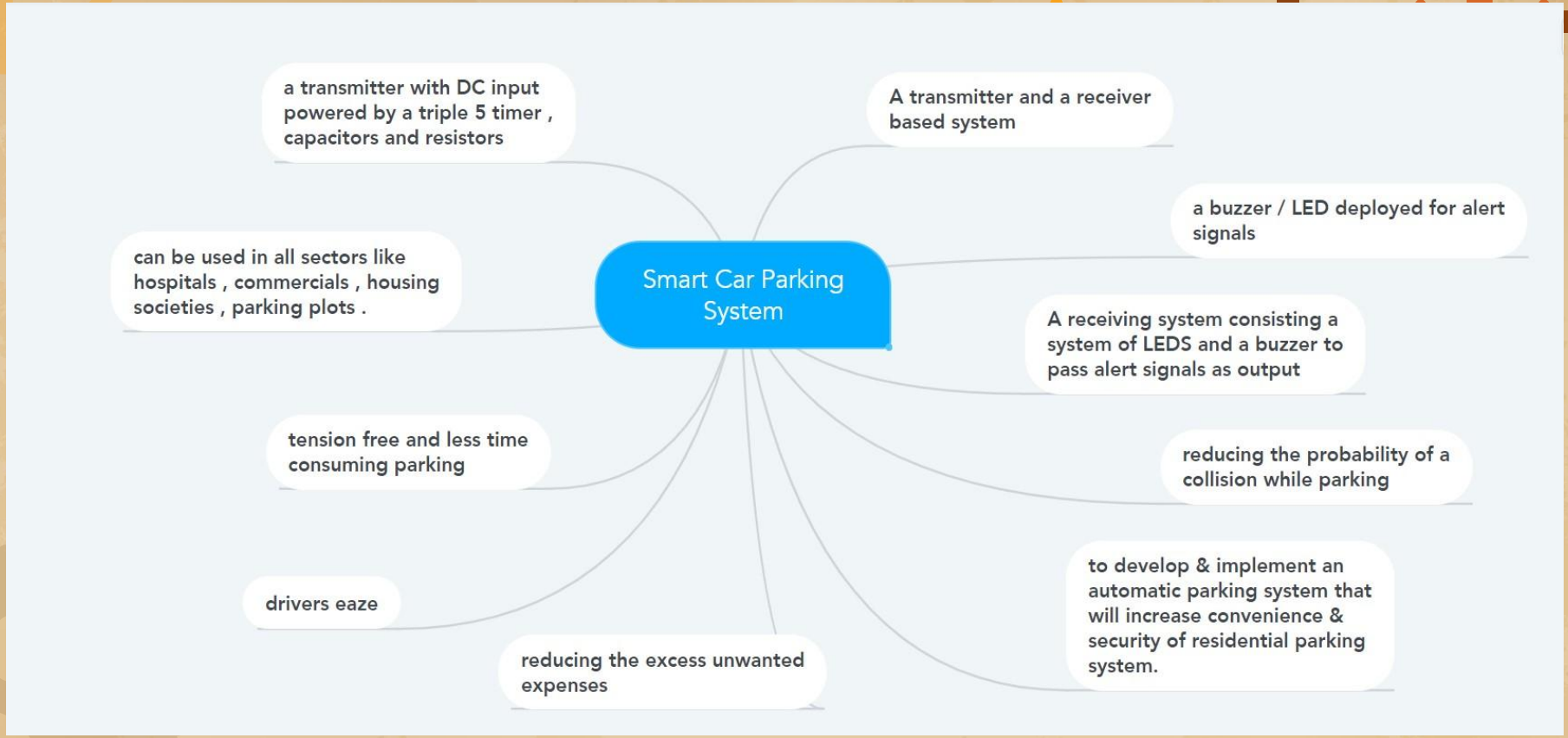
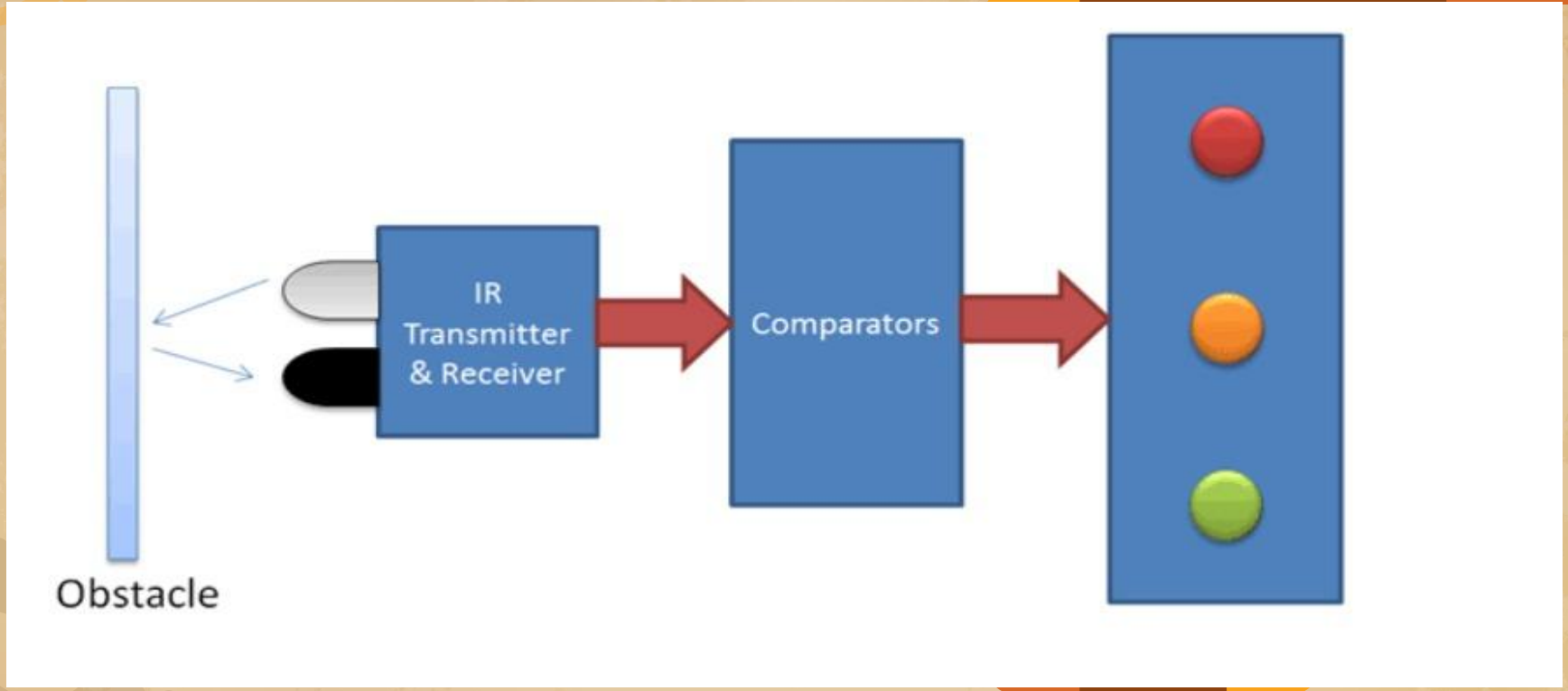


Fig.13 - Installation Diagram

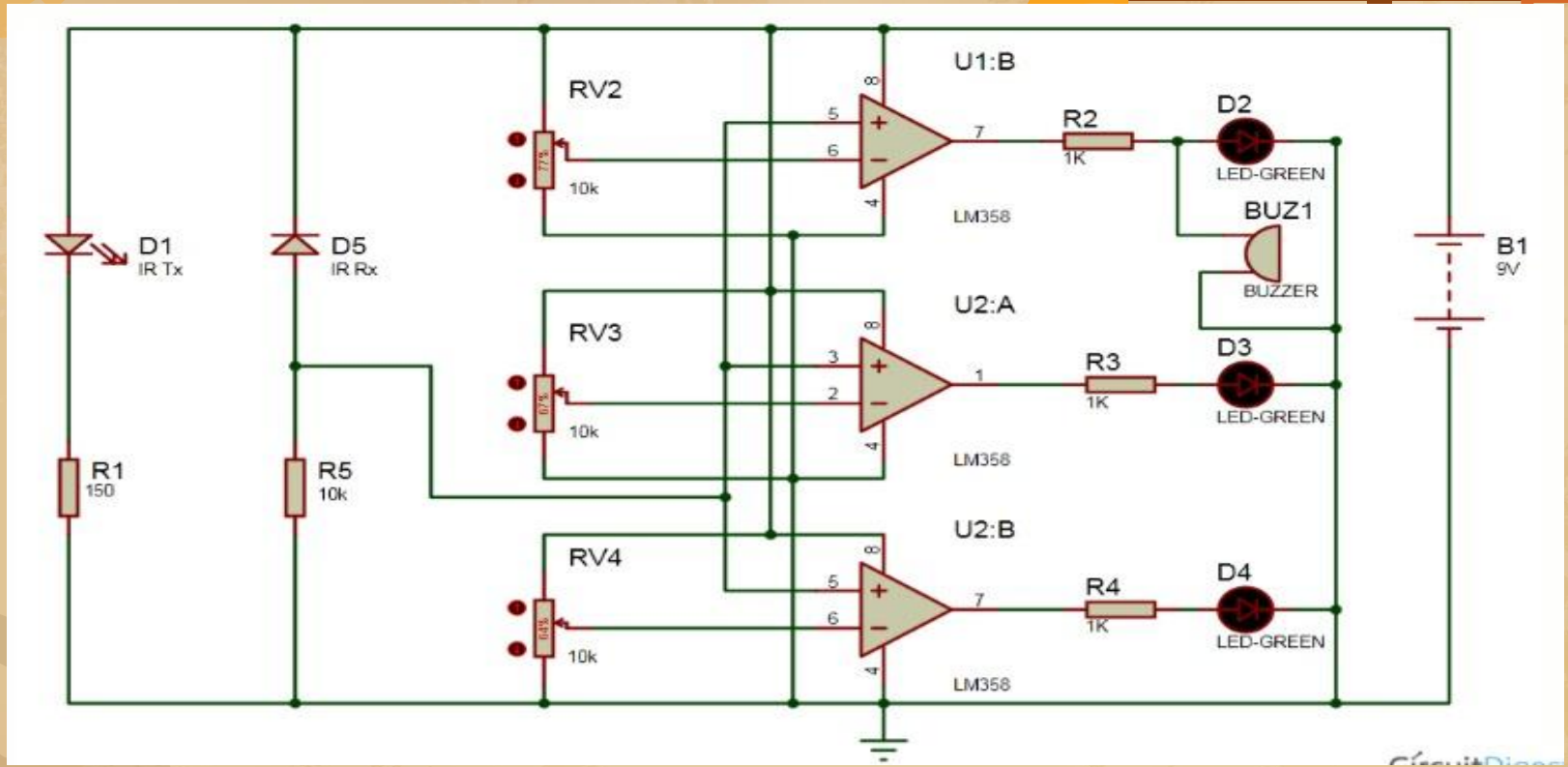
MIND MAP


Smart Car Parking System
a transmitter with DC input powered by a triple 5 timer , capacitors and resistors
A transmitter and a receiver based system
a buzzer / LED deployed for alert signals
can be used in all sectors like hospitals , commercials , housing societies , parking plots .
A receiving system consisting a system of LEDS and a buzzer to pass alert signals as output
tension free and less time consuming parking
reducing the probability of a collision while parking
drivers eaze
to develop & implement an automatic parking system that will increase convenience & security of residential parking system.
reducing the excess unwanted expenses

BLOCK DIAGRAM

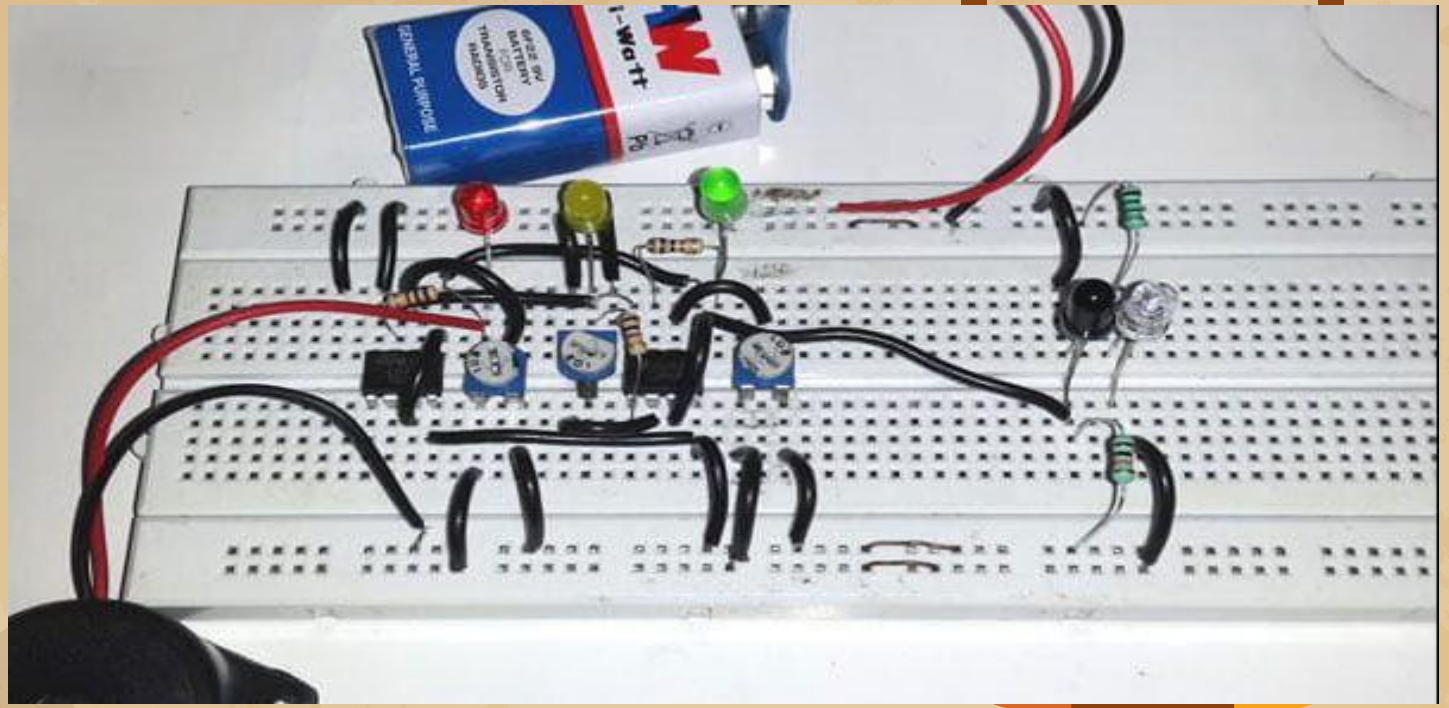


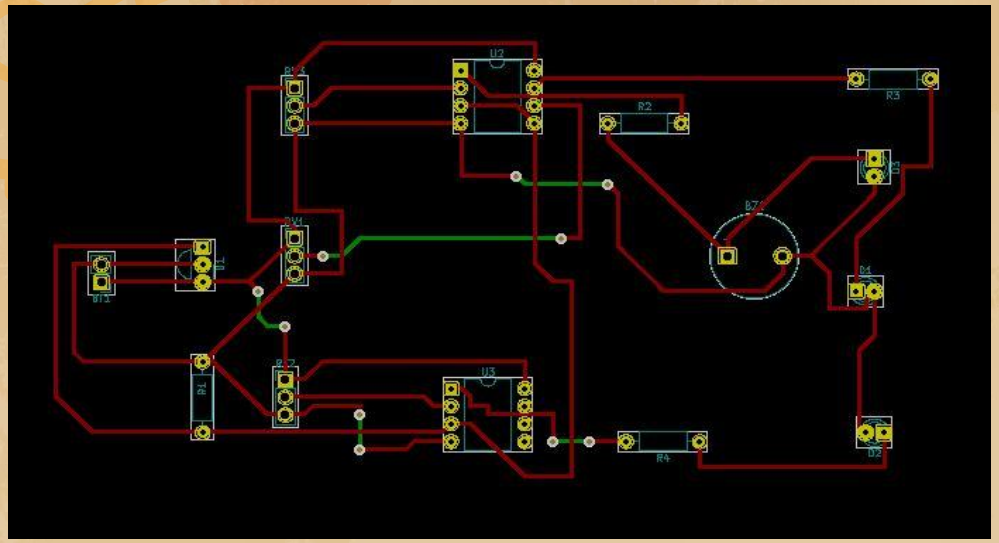
CIRCUIT DIAGRAM

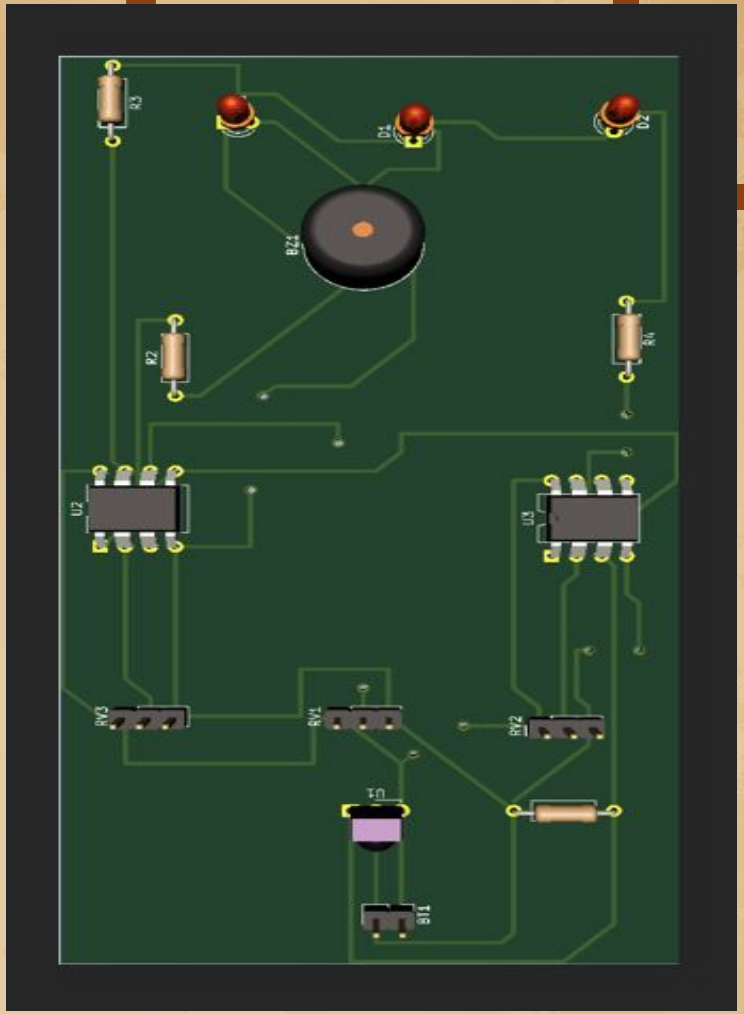


SIMULATION RESULTS

BREADBOARD CIRCUIT OF WORKING MODEL



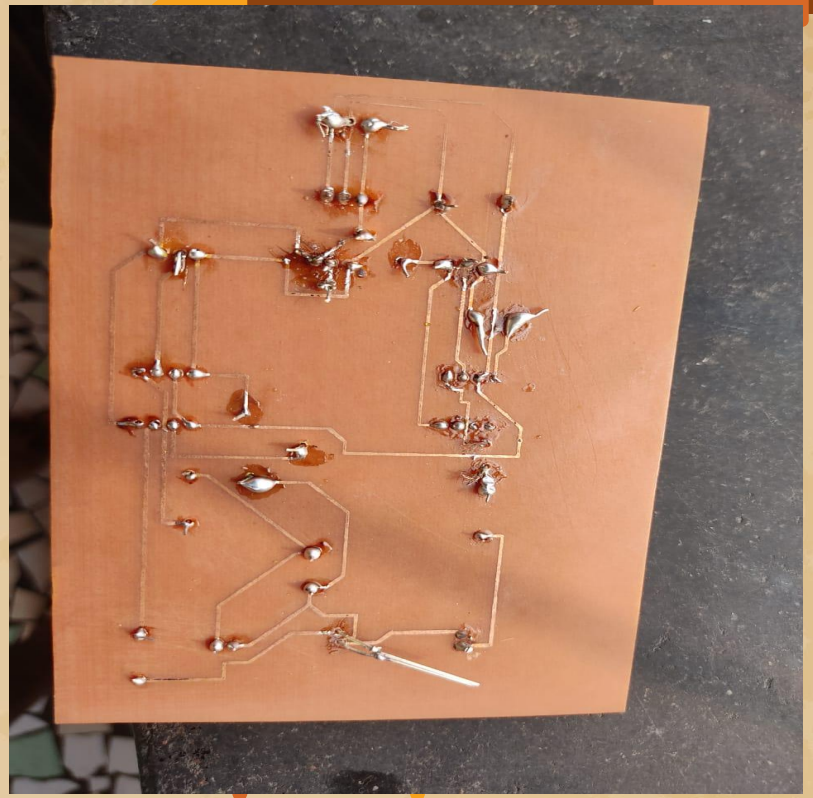




PCB ROUTING AND 3D MODEL

(USING ONLINE APPLICATION KICAD)

ACTUAL PCB MODEL



APPLICATION OF OUR PROJECT

- **APPLICATIONS:**
- This circuit can be used in automobiles to park the vehicle safely.
- We can use this circuit to measure the distance.
- We can also use this circuit as IR Liquid Level Detector by making few modifications.

LIST OF COMPONENTS AND SPECIFICATIONS

Sr no.	components	Specification	price	quantity
1	Amplifier	IC LM358	30 /-	2
2	Resistors	10k / 1k / 150 ohms	7 /- , 5/- , 2/-	1 / 3 / 1
4	potentiometer	10k pot	90 /-	3
6	battery	9 volt	60 /-	2
7	LED	3mm (red)	15 /-	3
8	Buzzer	5v , 1.6gm	6 /-	1
9	IR Sensor Module	Voltage : 3.3v - 5v Range : 2-30cm	100 /-	1
		Total price :	325 /-	

THANK YOU

-Mini Project group No. 01
(EXTC sem III)