

EXPERIMENT NO: 2

Aim of the Experiment:

To Draw and Design PCB layout of RLC Circuit.

Theory:

When resistance, inductance, and capacitance are connected in series, the circuit is said to be RLC Series circuit. In the RLC Series circuit shown in the figure below, the current is common to all components.

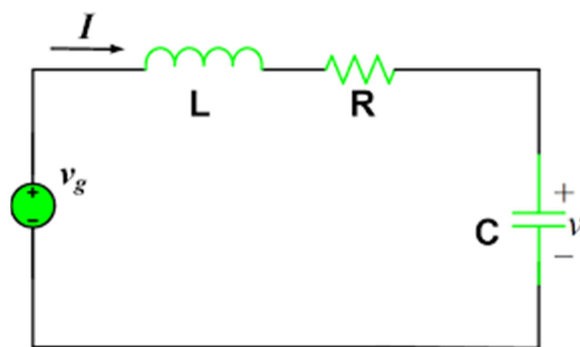


Fig.1 Circuit Diagram

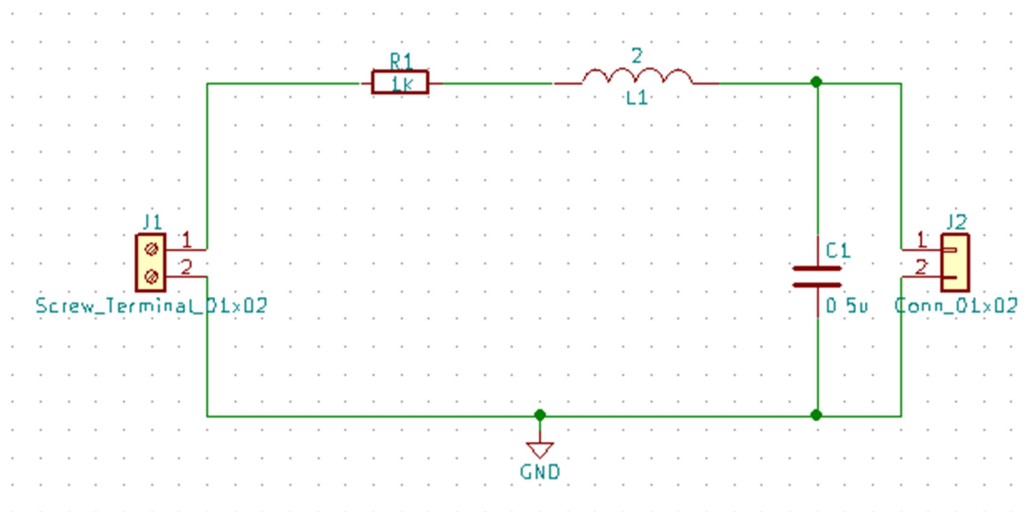


Fig.2 Schematic for PCB

1	C1 -	0.5u : Capacitors_THT:C_Disc_D3.0mm_W1.6mm_P2.50mm
2	J1 -	Screw_Terminal_01x02 : Connectors_Terminal_Blocks:TerminalBlock_Altech_AK300-2_P5.00mm
3	J2 -	Conn_01x02 : Pin_Headers:Pin_Header_Straight_1x02_Pitch2.54mm
4	L1 -	2 : Inductors_THT:L_Radial_D6.0mm_P4.00mm
5	R1 -	1k : Resistors_THT:R_Axial_DIN0207_L6.3mm_D2.5mm_P15.24mm_Horizontal

Fig.3 Component Footprints for PCB

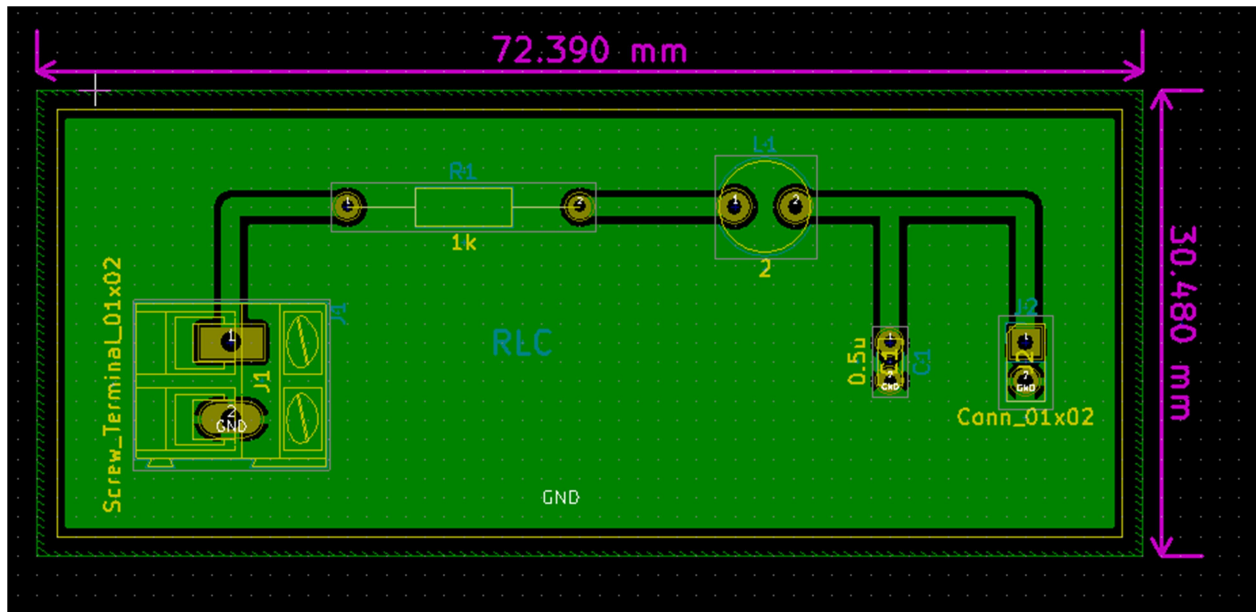


Fig.4 PCB layout with GND Plane B.Cu

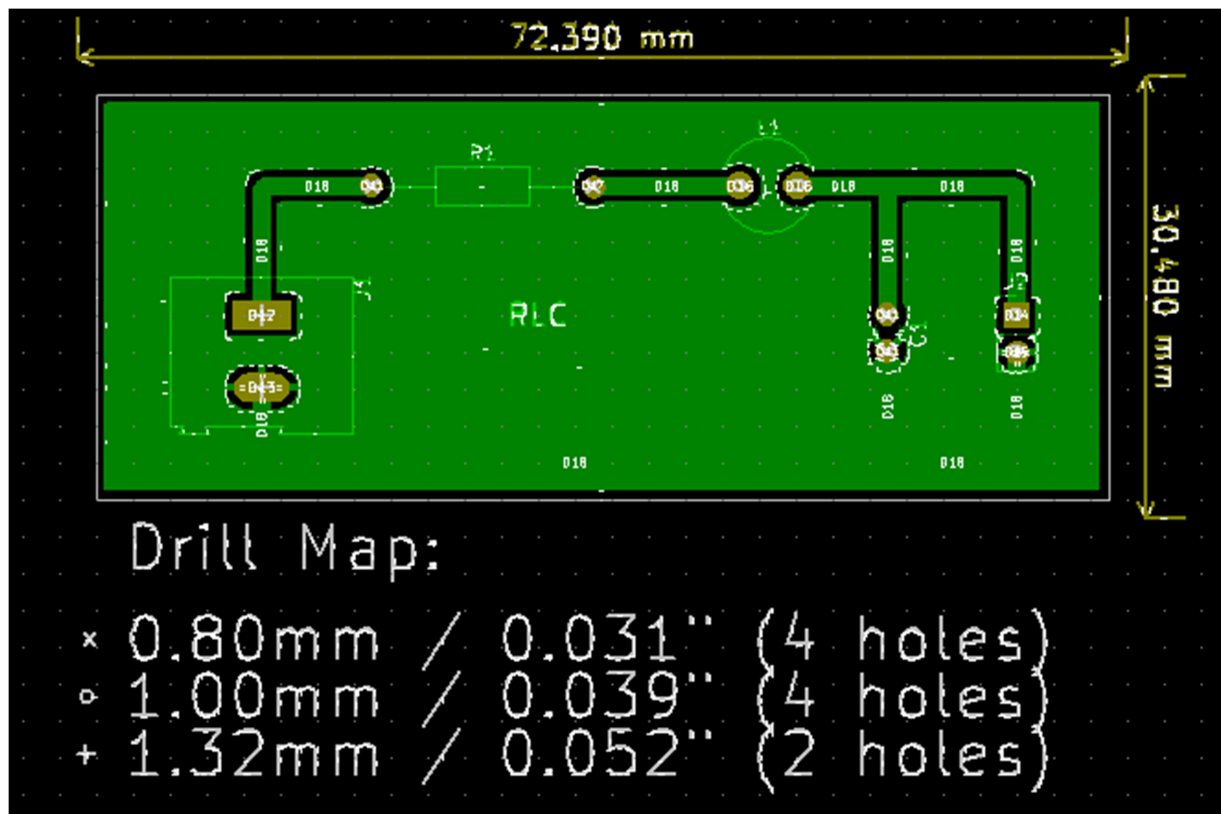


Fig.5 GerbView B.Cu

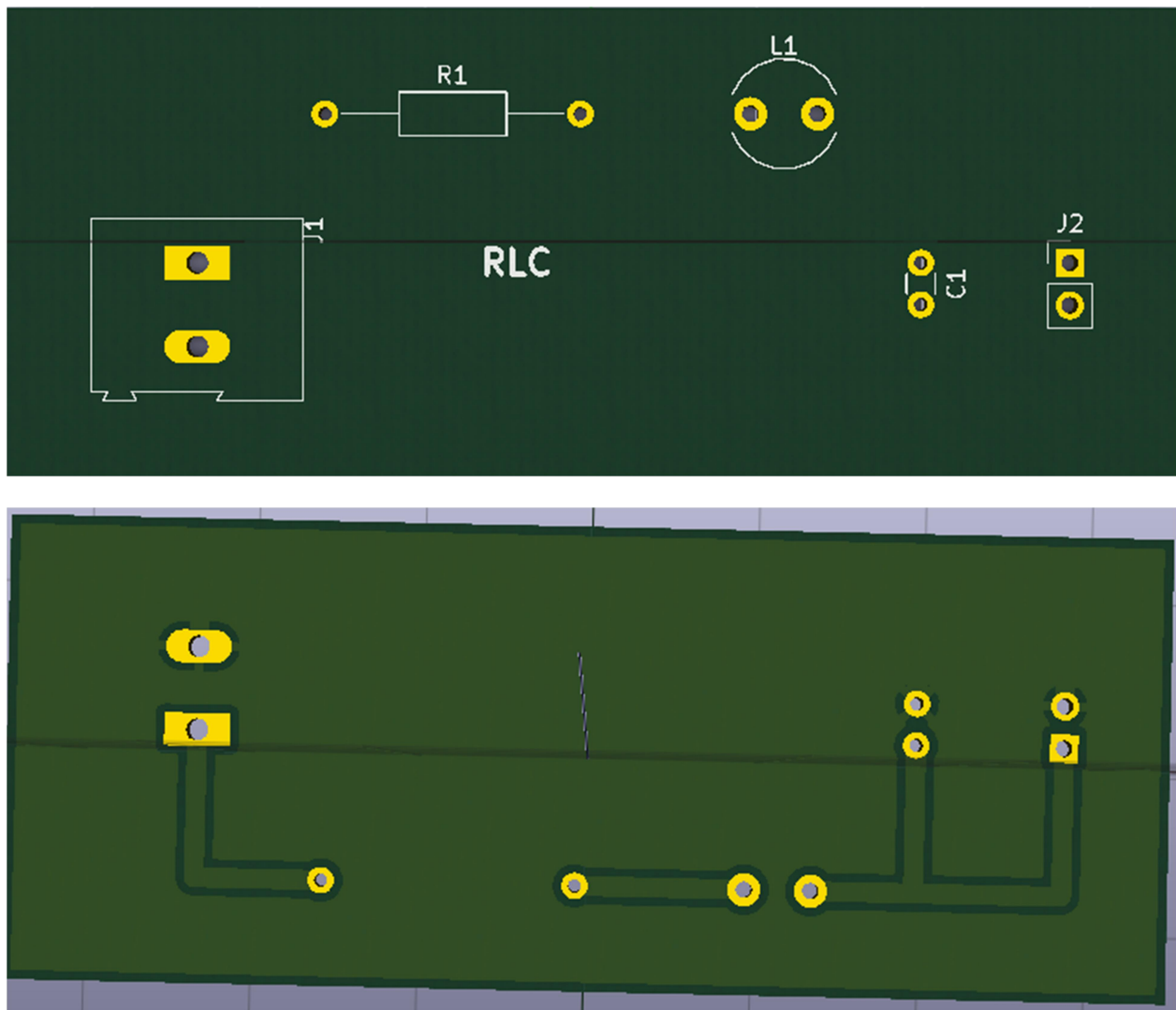


Fig.6 3D View

Reference: <https://electricalacademia.com/basic-electrical/parallel-rlc-circuit-analysis/>

Conclusion: We have design the PCB Layout of RLC Cicuit

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