

EXPERIMENT NO: 3

Aim of the Experiment:

To Draw and Design PCB layout of Inverting Amplifier Circuit using IC 741.

Theory:

The 741 can operate in both inverting and non-inverting configurations. Inverting configuration means the output is inverted concerning the input signal, while non-inverting configuration maintains the same phase. By connecting the input signal to the inverting terminal (-) and providing feedback from the output to the inverting input, the op-amp can be configured to produce an inverted and amplified output signal relative to the input.

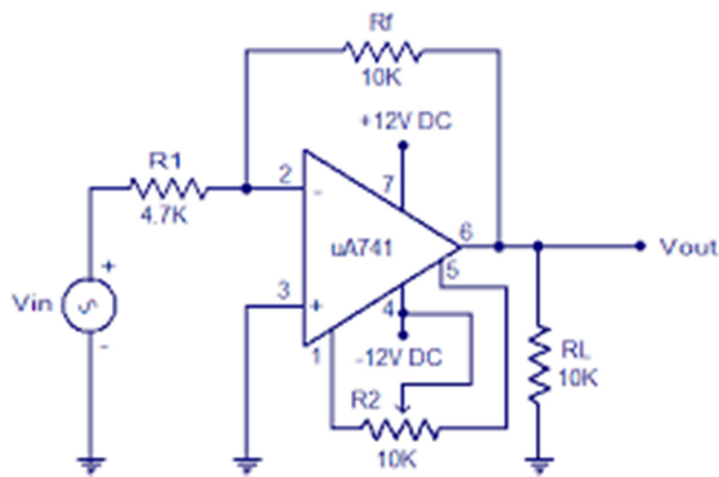


Fig.1 Circuit Diagram

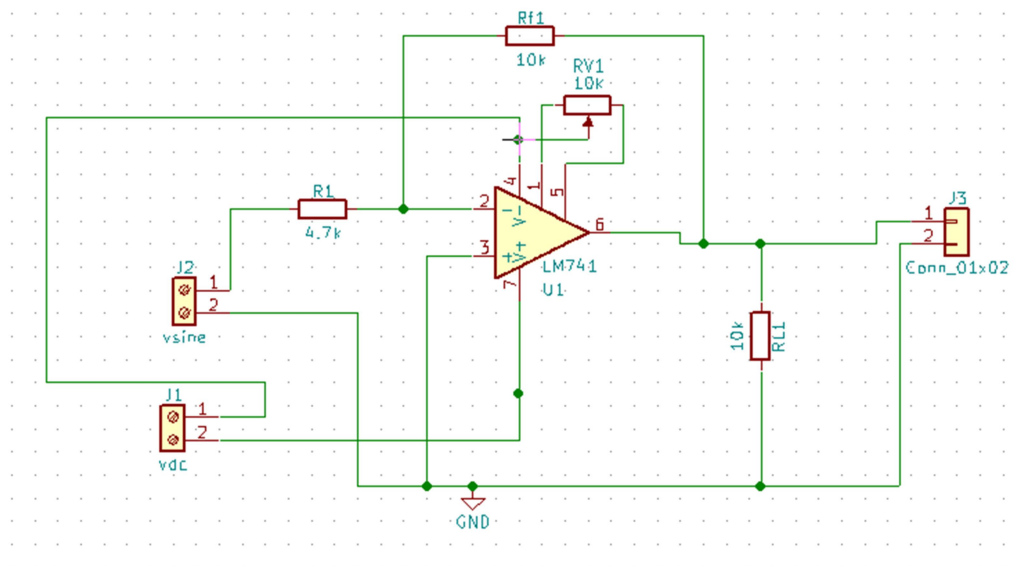


Fig.2 Schematic for PCB

1	J1 -	vdc : Connectors_Terminal_Blocks:TerminalBlock_Altech_AK300-2_P5.00mm
2	J2 -	vsine : Connectors_Terminal_Blocks:TerminalBlock_Altech_AK300-2_P5.00mm
3	J3 -	Conn_01x02 : Pin_Headers:Pin_Header_Straight_1x02_Pitch2.54mm
4	R1 -	4.7k : Resistors_THT:R_Axial_DIN0207_L6.3mm_D2.5mm_P15.24mm_Horizontal
5	Rf1 -	10k : Resistors_THT:R_Axial_DIN0207_L6.3mm_D2.5mm_P15.24mm_Horizontal
6	RL1 -	10k : Resistors_THT:R_Axial_DIN0207_L6.3mm_D2.5mm_P15.24mm_Horizontal
7	RV1 -	10k : Potentiometers:Potentiometer_Alps_RK09K_Vertical
8	U1 -	LM741 : Housings_DIP:DIP-8_W7.62mm

Fig.3 Component Footprint for PCB

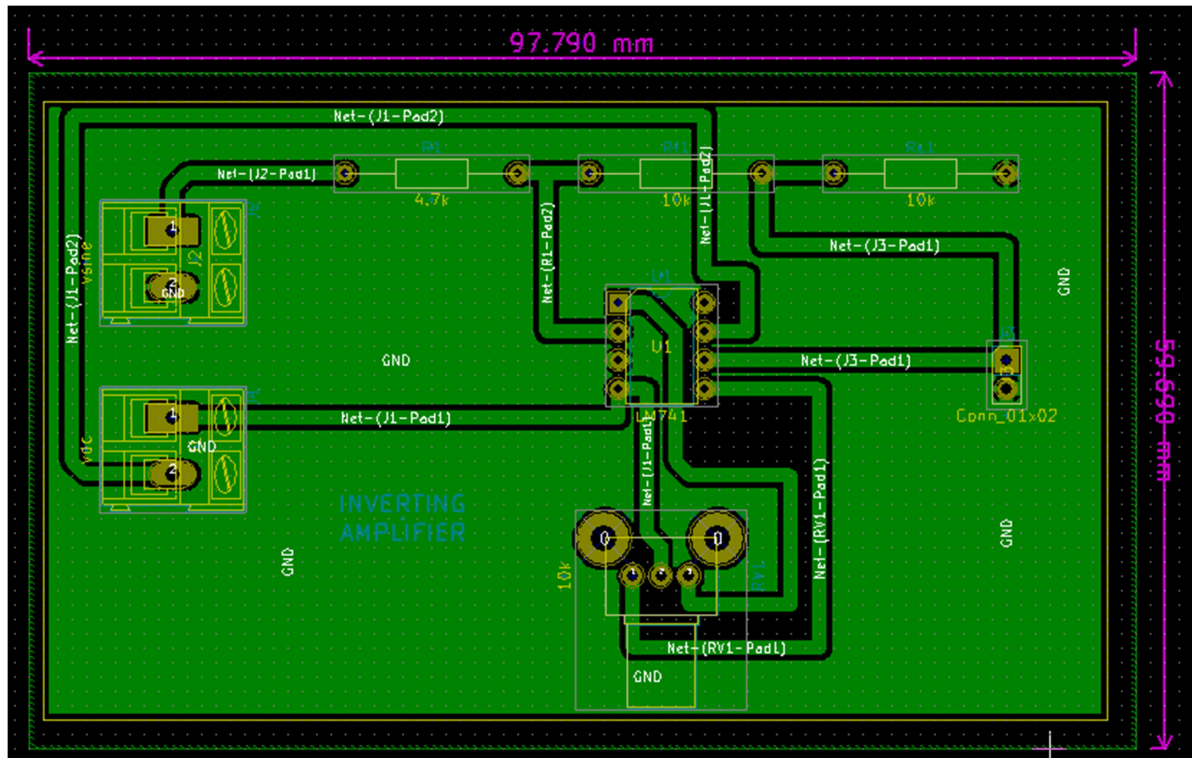


Fig.4 PCB layout With GND Plane (B.Cu)

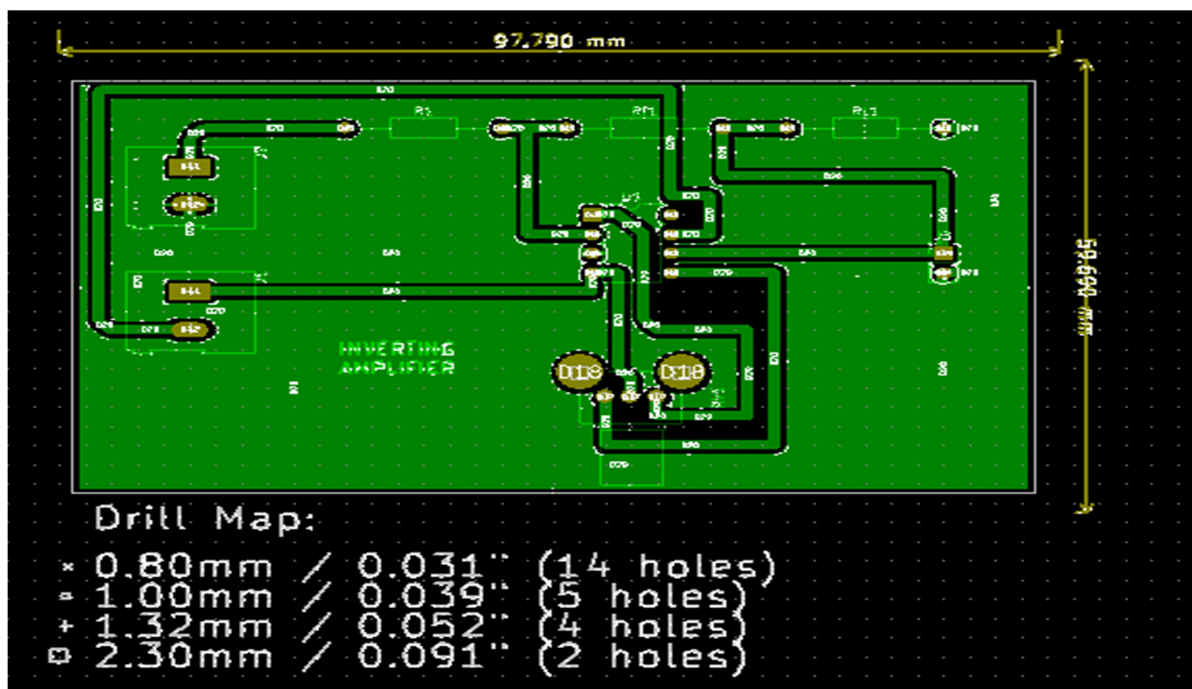


Fig.5 Gerb view (B.Cu)

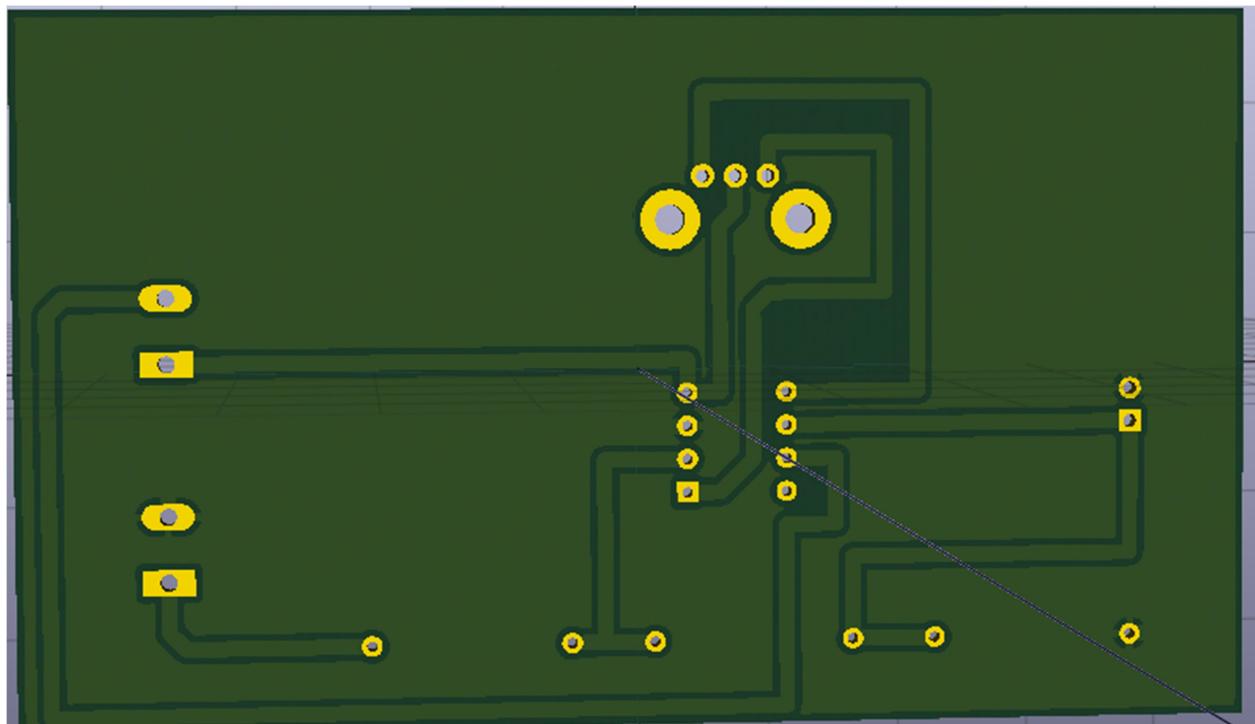
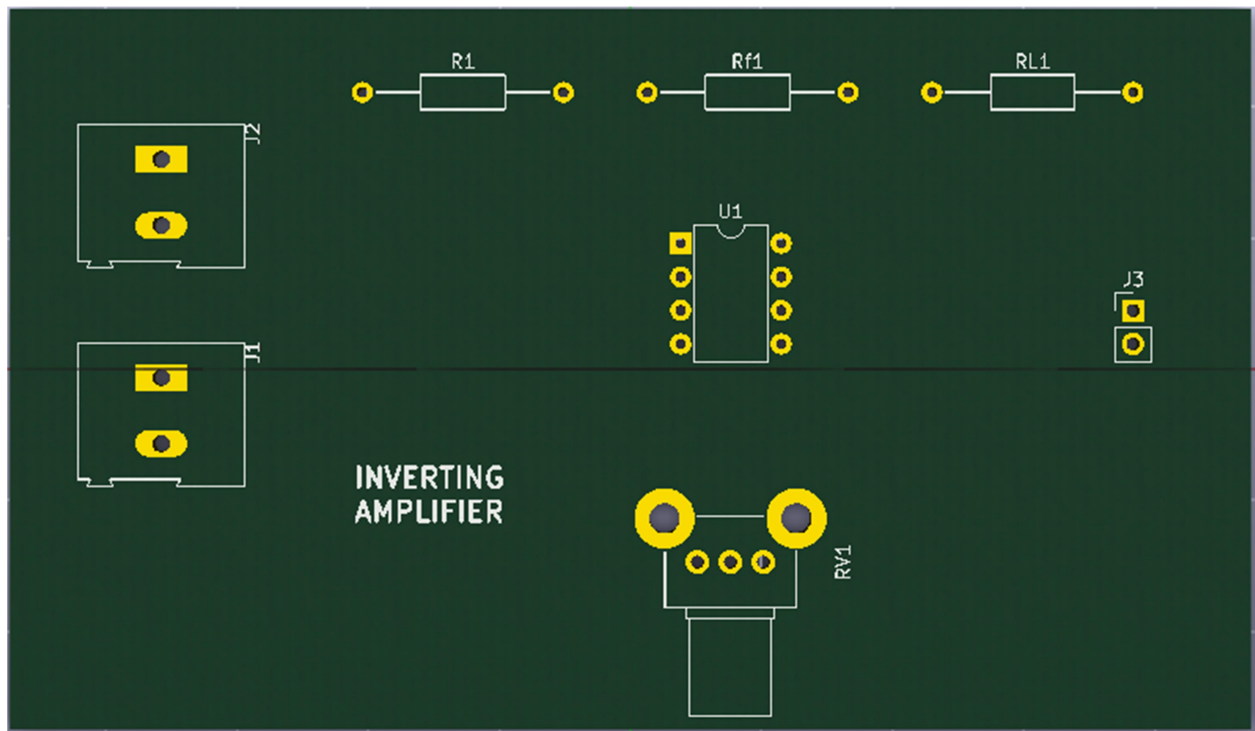


Fig.6 3D View

Reference: https://www.electronics-tutorials.ws/opamp/opamp_2.html

Conclusion: We have design PCB Layout of Inverting Amplifier using IC 741

Submitted By:
 Prof. K.G.Pande
 Dr. U.S. Ghodeswar
 Department of Electronics Engineering,
 Yeshwantrao Chavan College of Engineering