Analog Lab (EE2401)
Experiment 3 : PCB Design

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1 Aim

our aim here is Know how to design PCB boards using Kicad

PCB

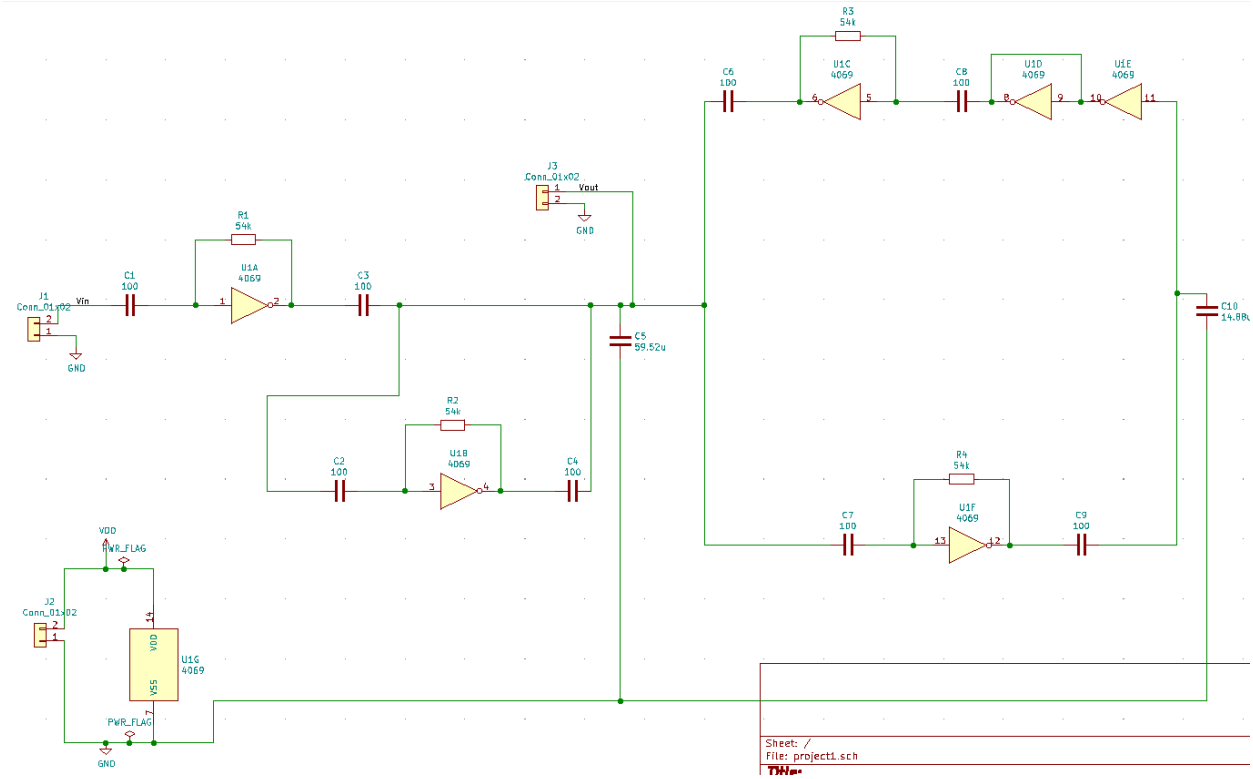
A printed circuit board (PCB) mechanically supports and electrically connects electrical or electronic components using conductive tracks, pads and other features etched from one or more sheet layers of copper laminated onto and/or between sheet layers of a non-conductive substrate. Components are generally soldered onto the PCB to both electrically connect and mechanically fasten them to it.

2 Problem statement

1. Design a PCB for the g_m-C filter implemented in Experiment 2.
. • Two layer PCB.
. • 2-pin connectors for supply, input and output.
. • Use only one CD4069 IC with six inverters.
. • Through-hole package for all the components

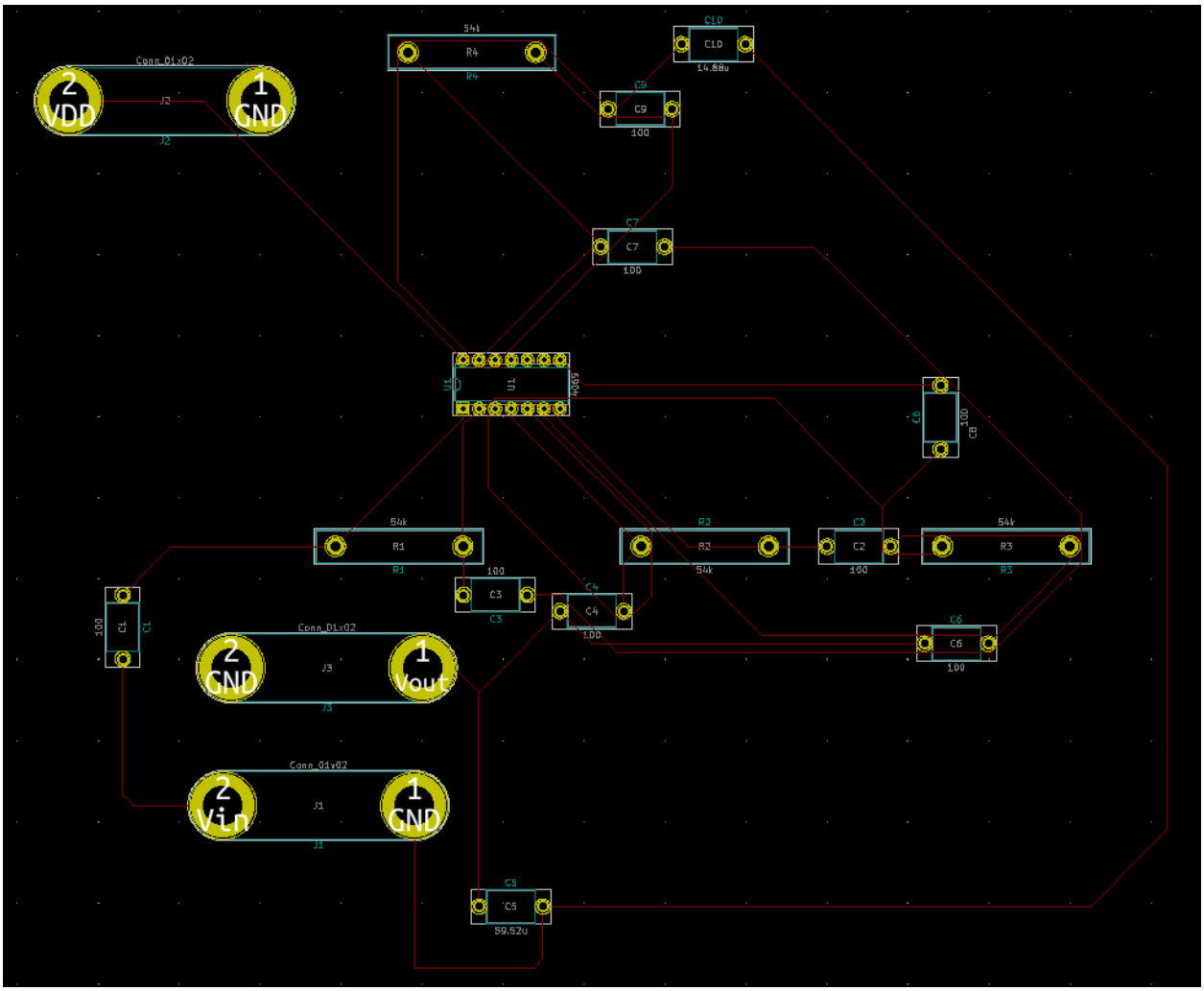
3 Design schematics and layout

Schematic of the g_m-C filter



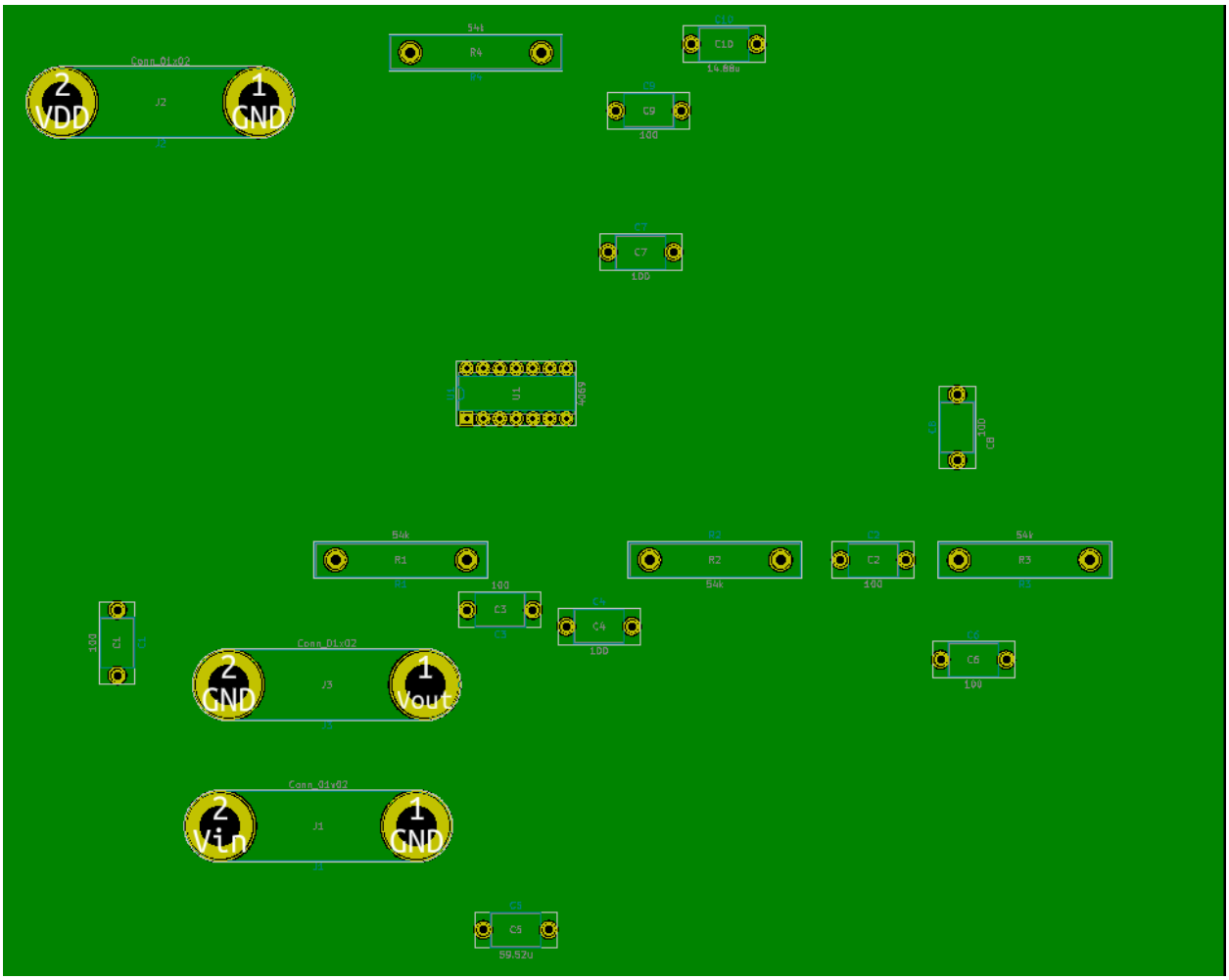
• Using the schematic i have generated a netlist to start PCB .

Layout of PCB Top layer



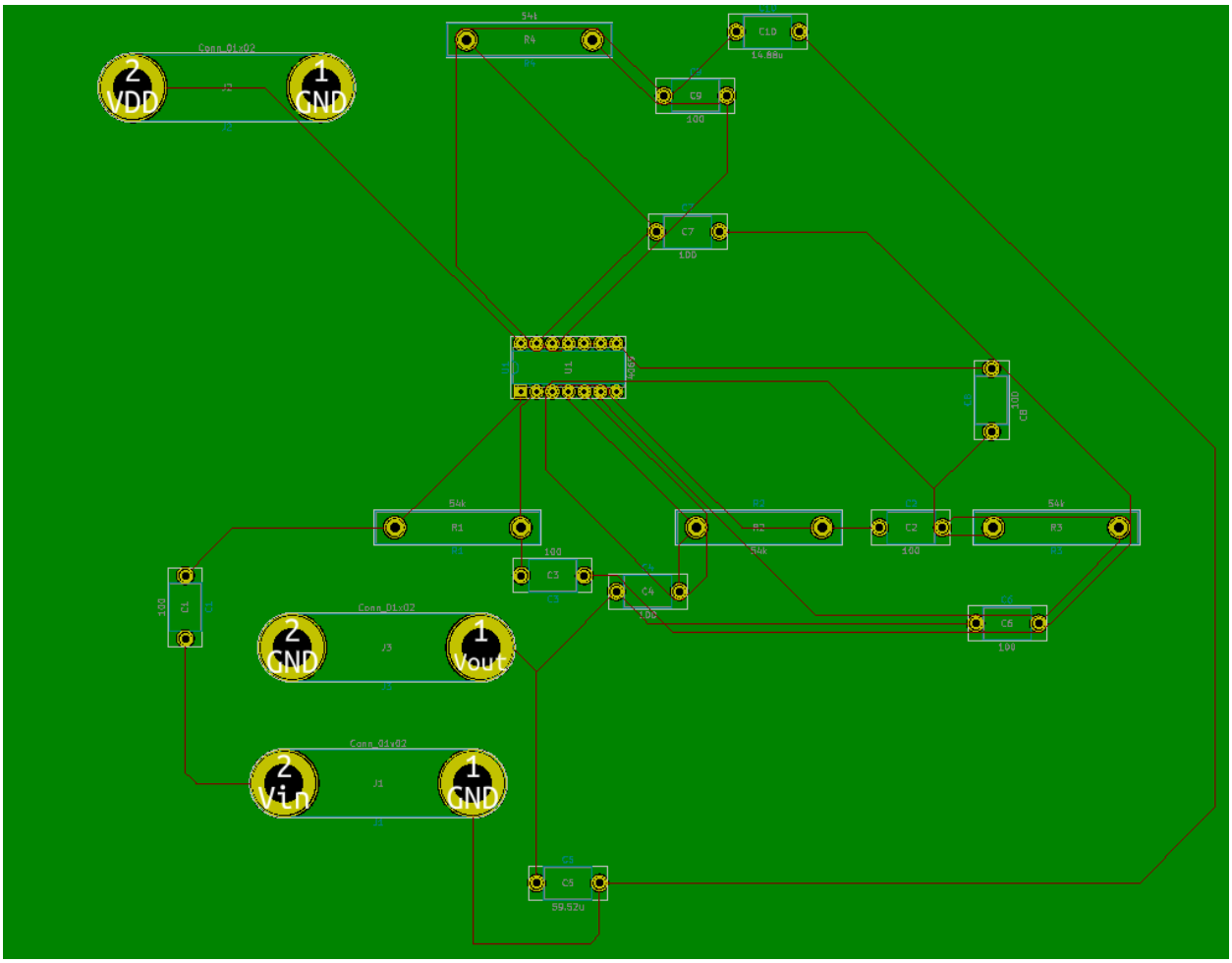
PCB layout Top layer

Layout of PCB Bottom layer



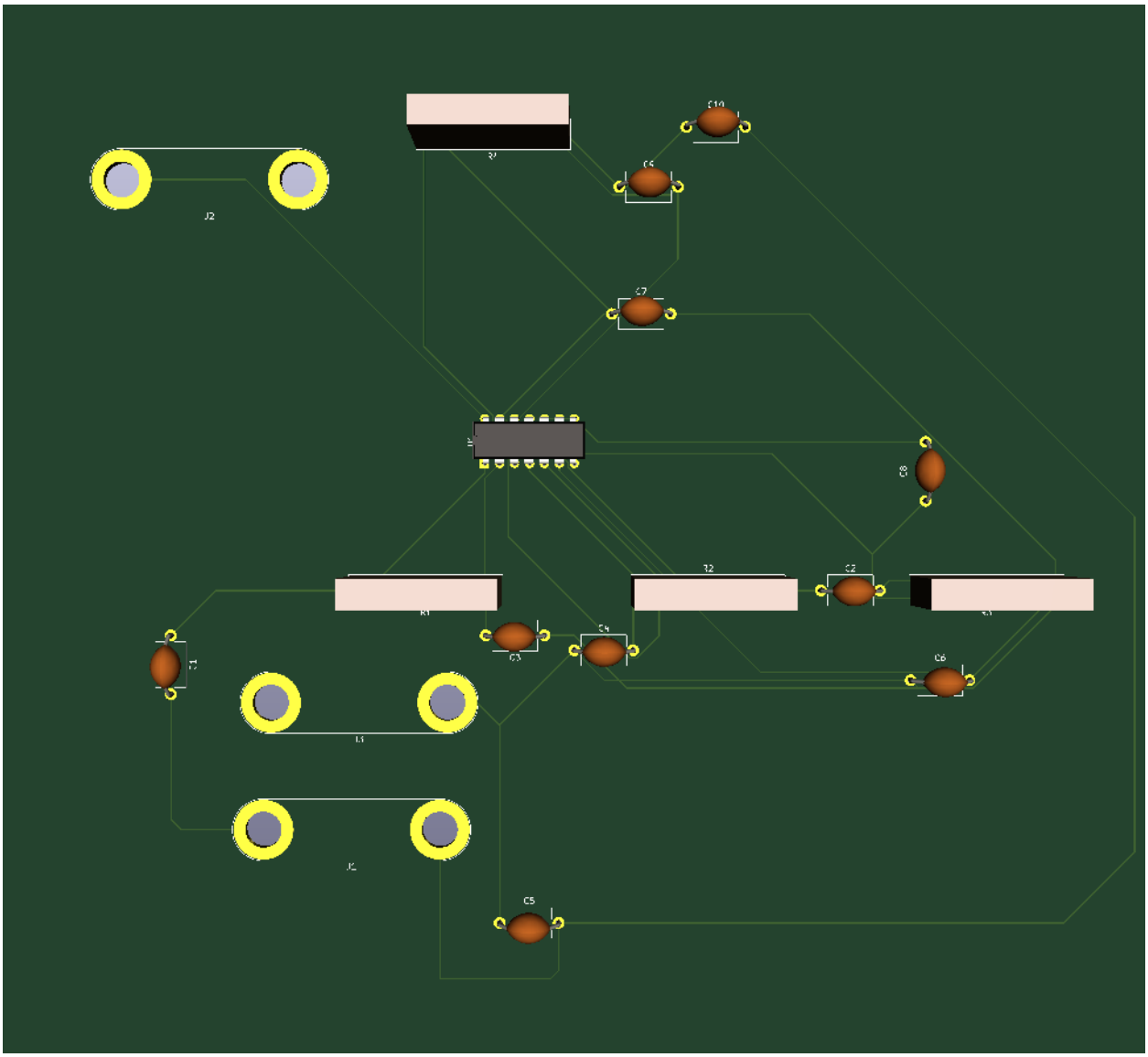
PCB layout Bottom layer

Layout of PCB Both layer



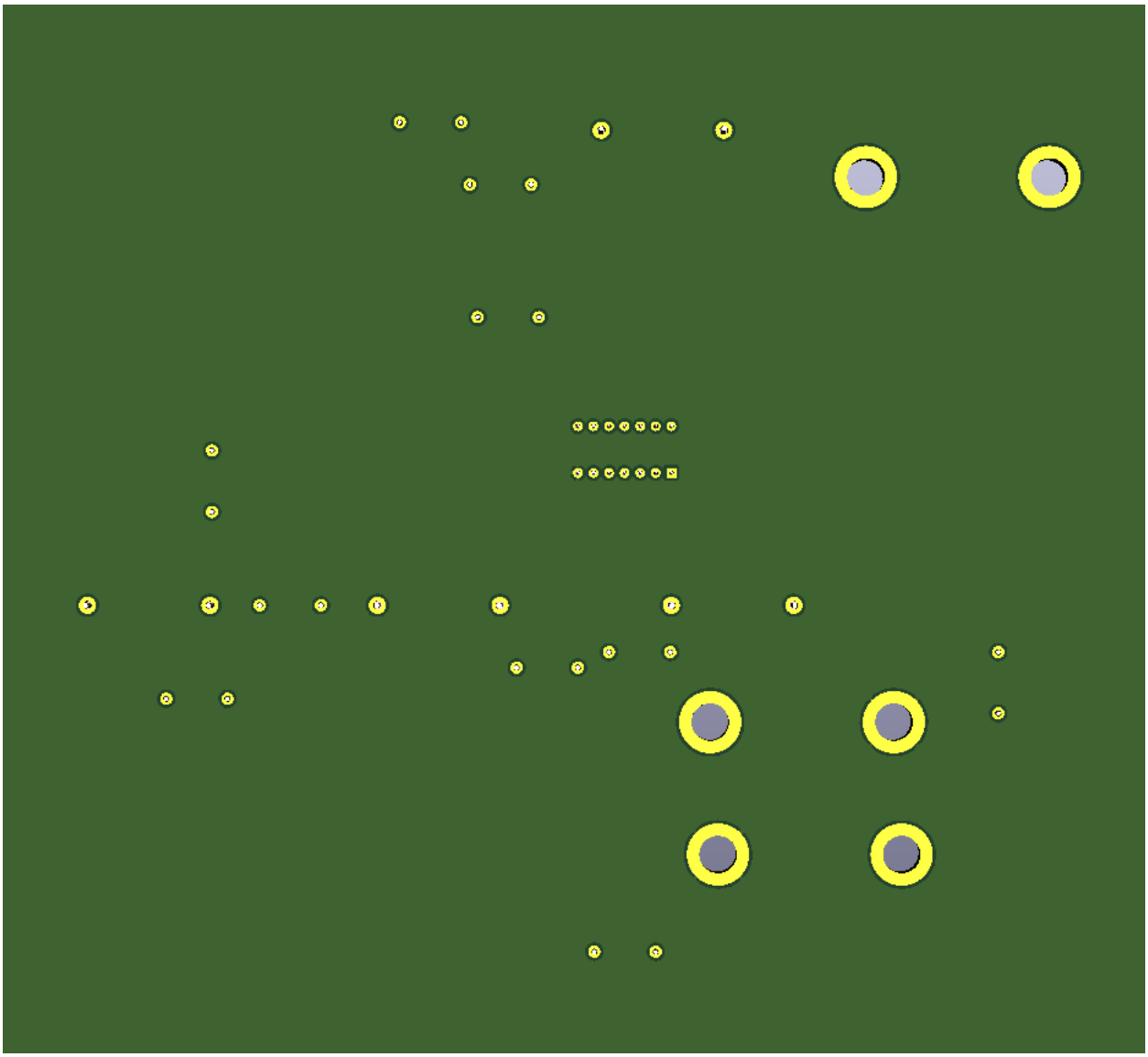
PCB layout Both layer

3D view of PCB Top layer



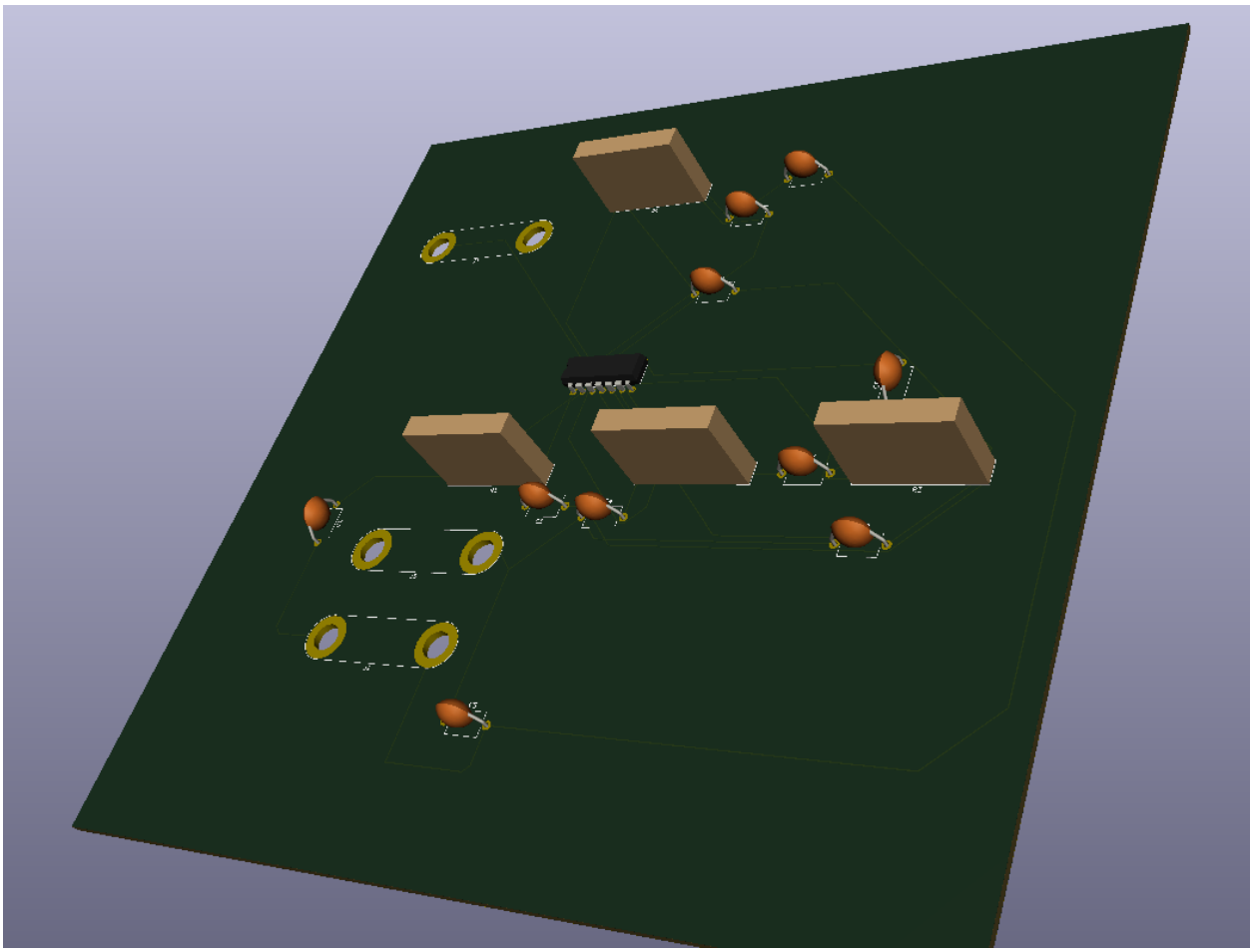
PCB 3d view Top layer

3D view of PCB Bottom layer



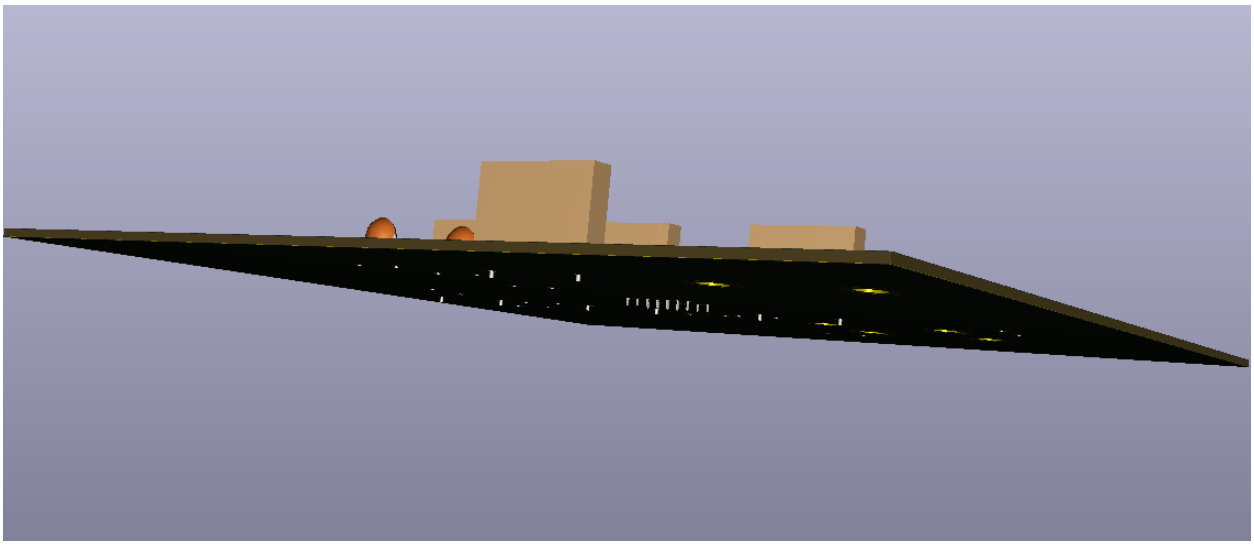
PCB 3d view Bottom layer

3D side view of PCB



PCB 3d view

3D side view of PCB



PCB 3d view


thank
you