

## Schematic:

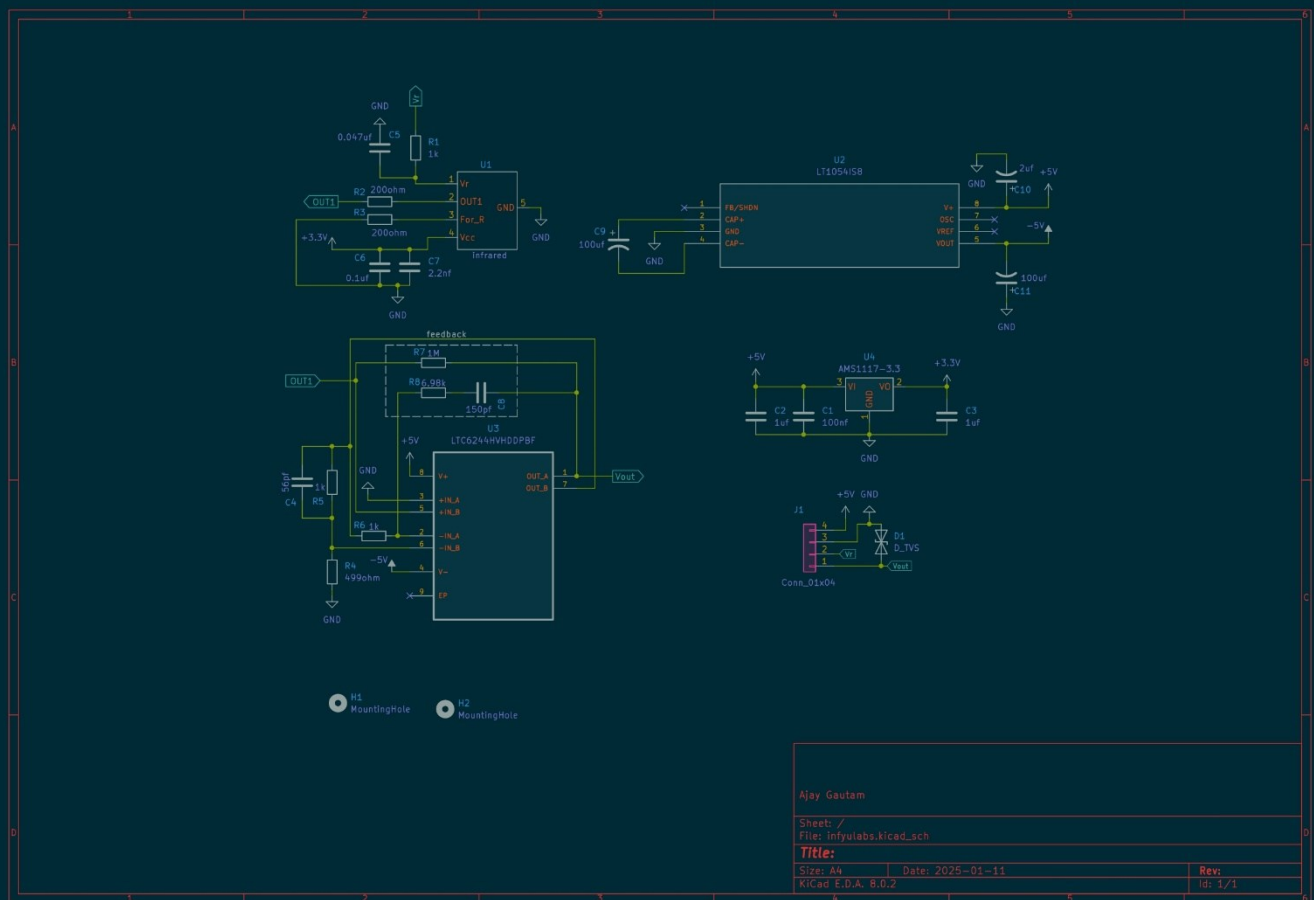
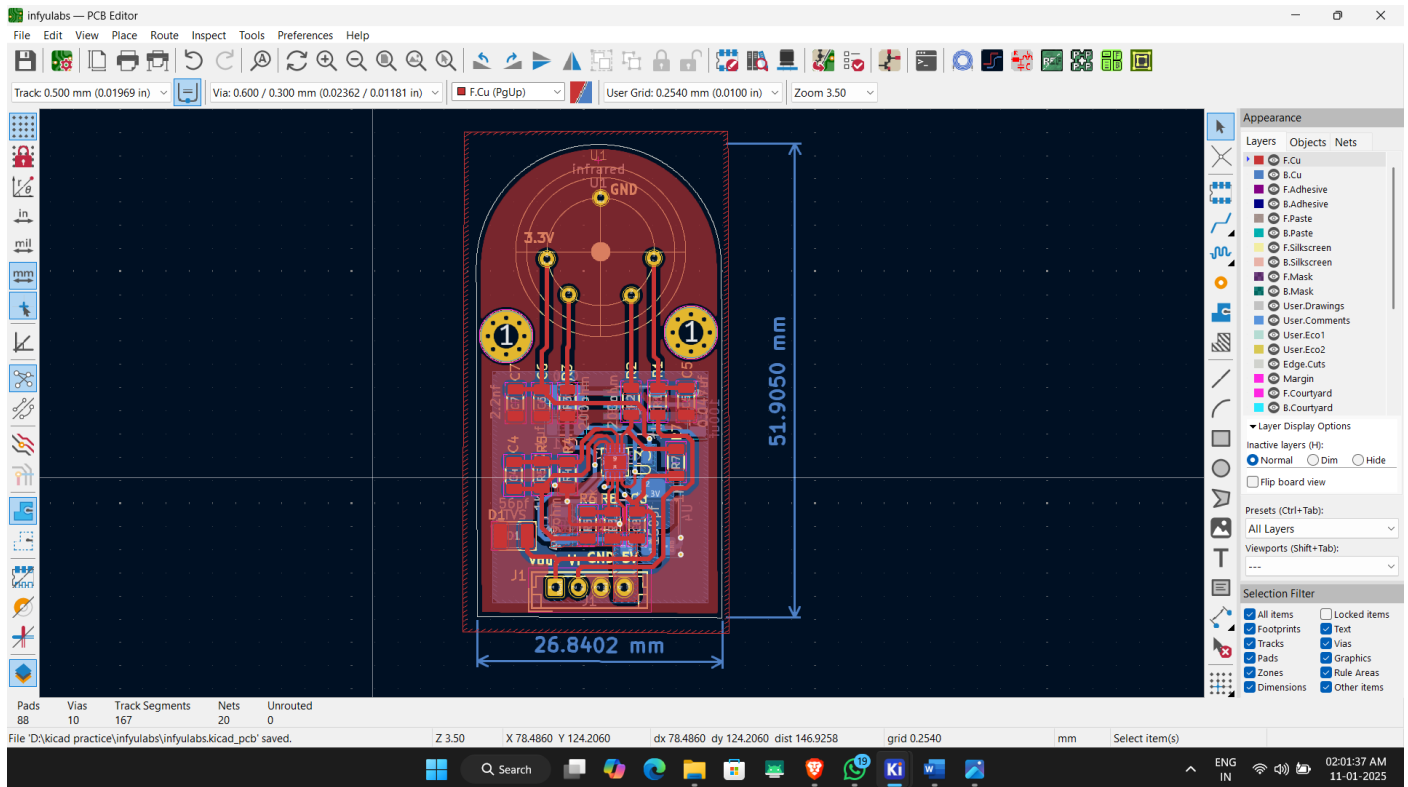
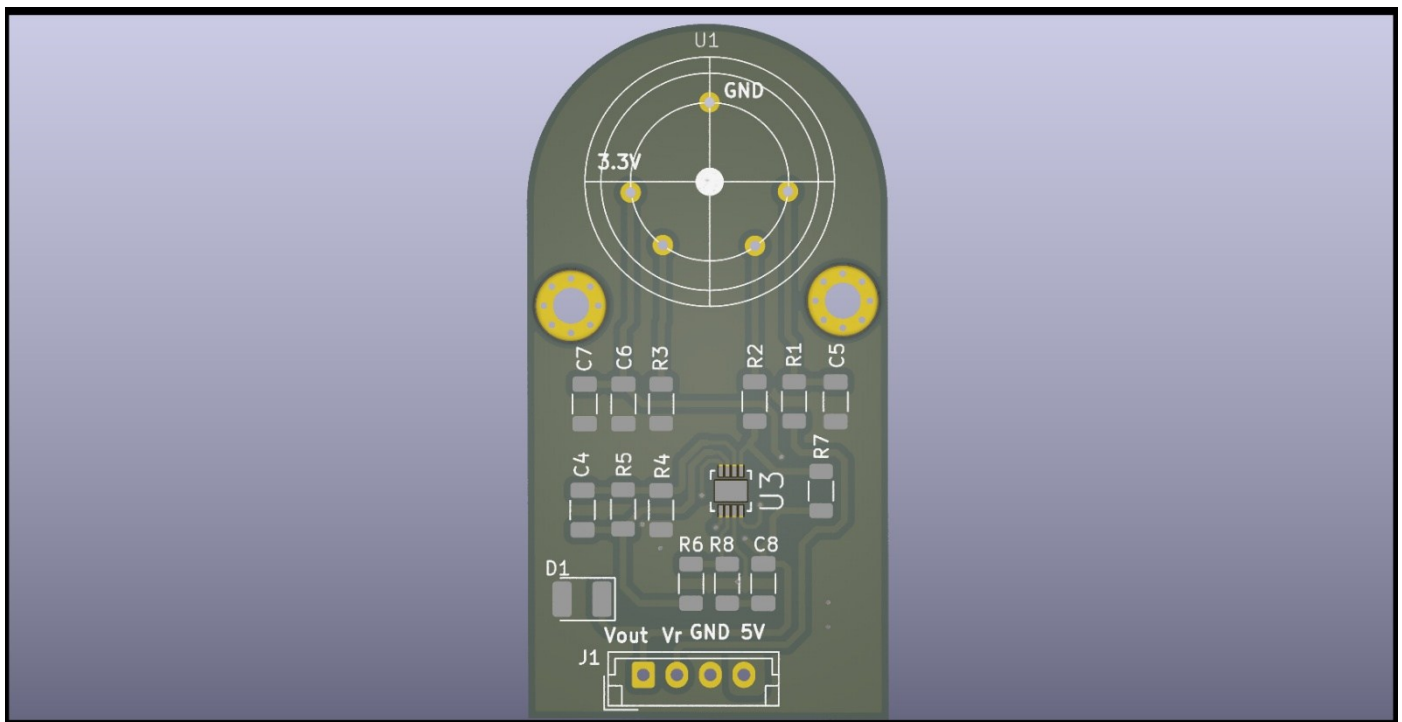


Figure 1: Schematic

**PCB layout:****Figure 2: PCB Layout****3D Render View:****Figure 3: Front view without SMD and THT**

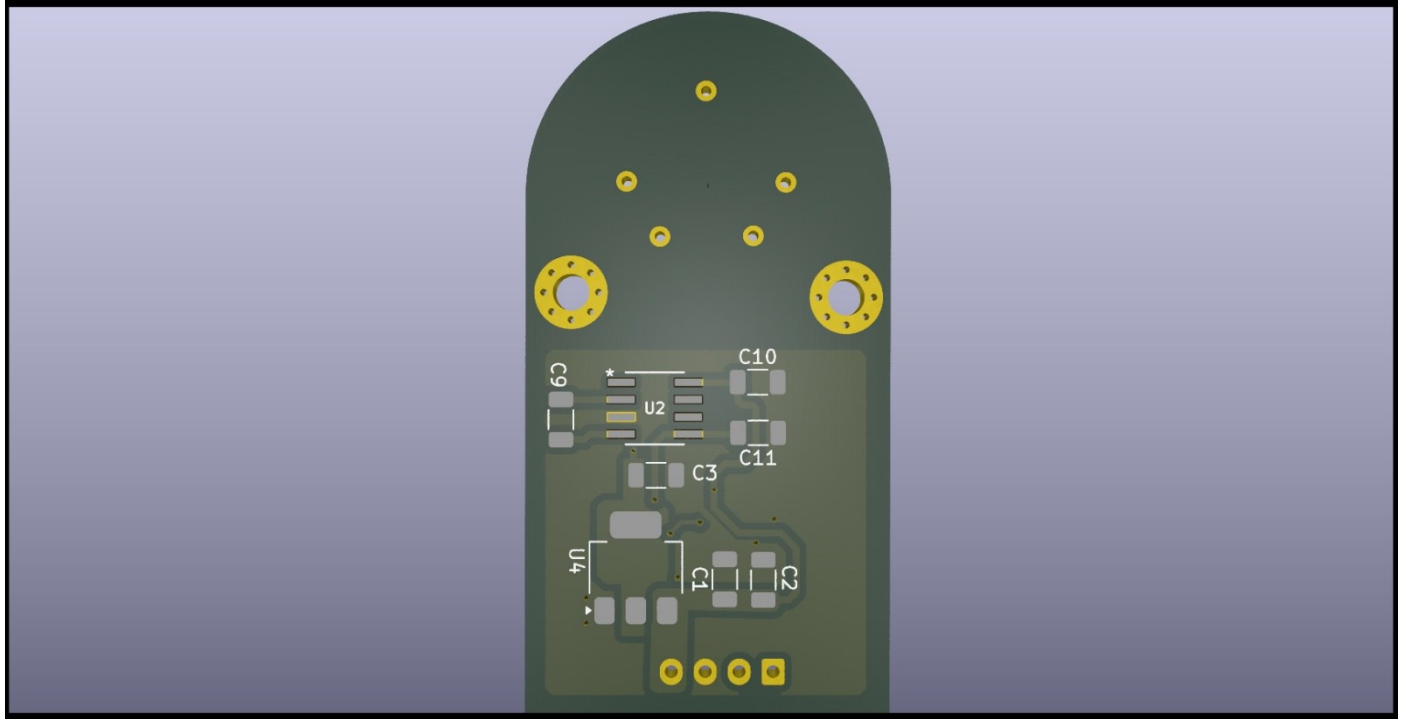


Figure 4: Back view without SMD and THT

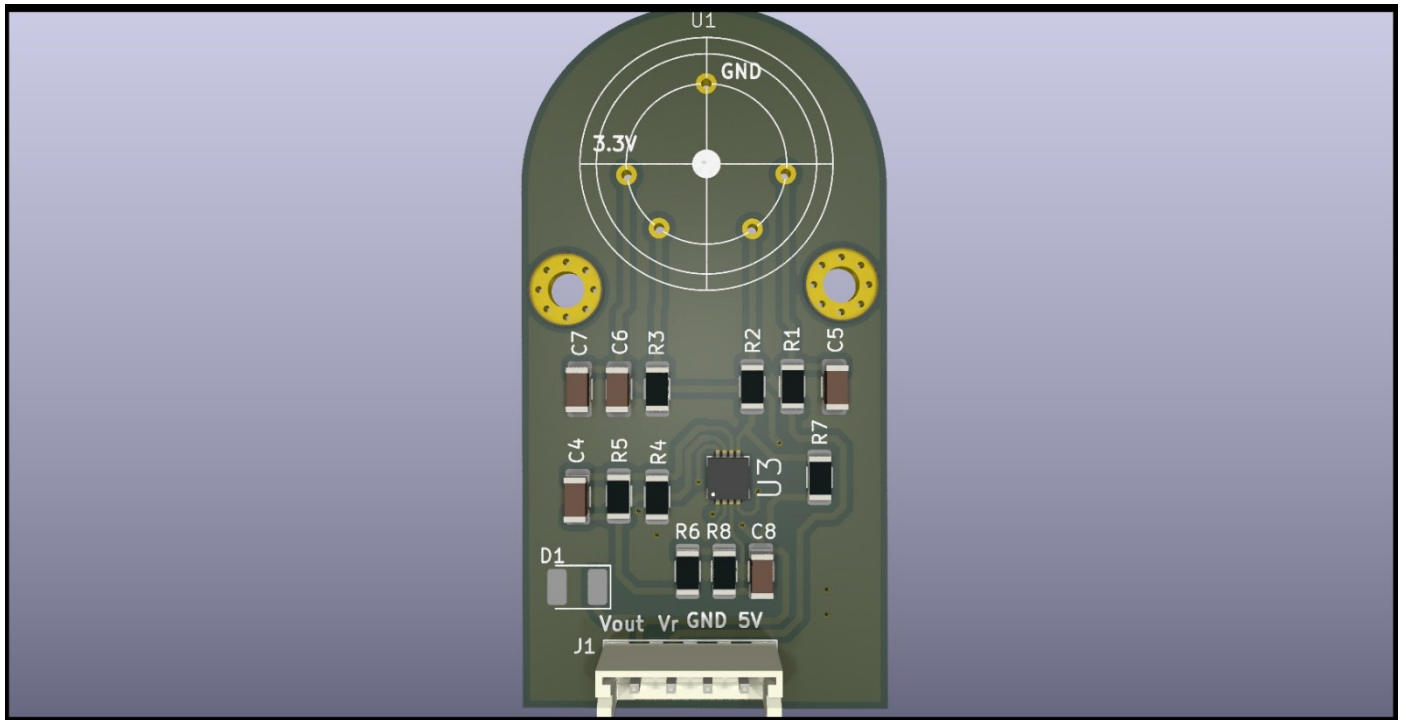


Figure 5: Front view with SMD and THT (Sensor Footprint is Custom made and JST Connector)

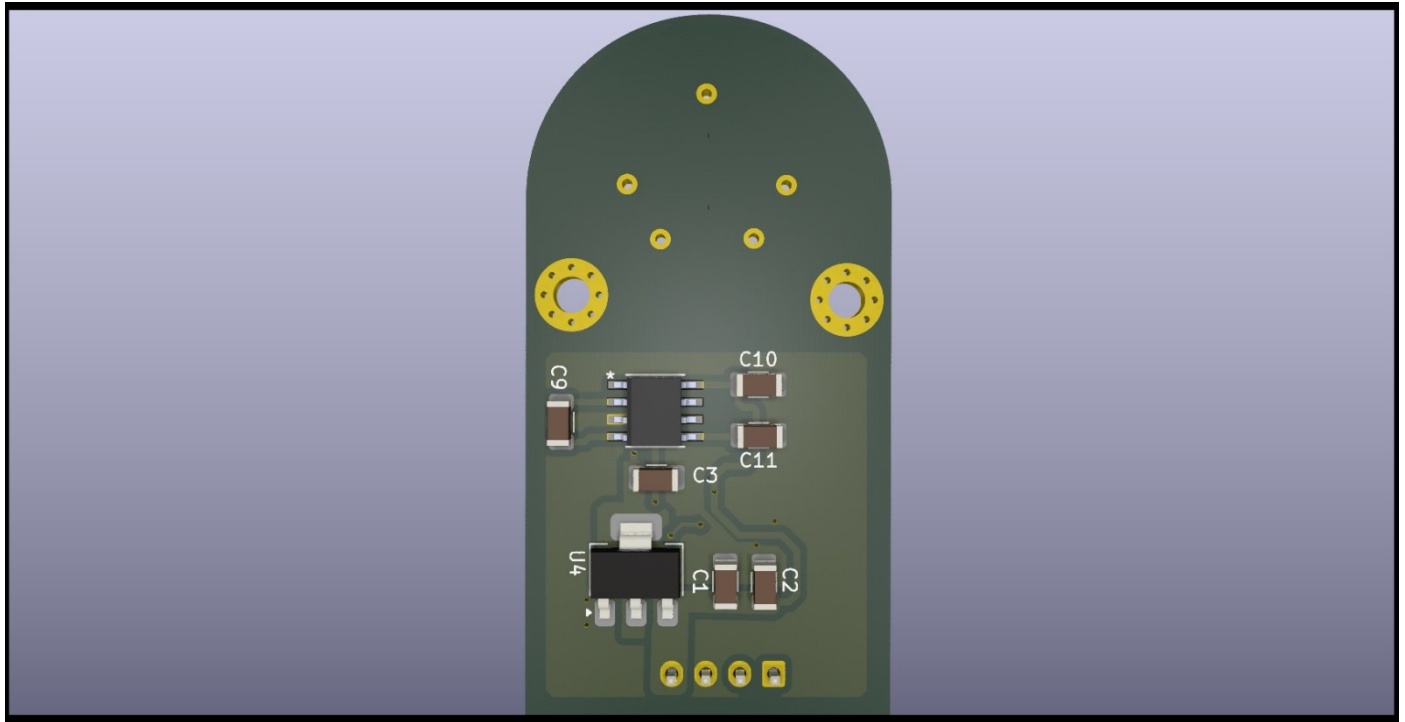


Figure 6: Back view with SMD and THT

#### Overview:

1. For ESD protection TVS Diode used.
2. Basic Voltage Inverter is used for -5V output (LT1054).
3. Used LTC6244HV low-noise transimpedance amplifier (TIA).
4. Used LDO AMS1117 with coupling capacitors, generally we call them step down capacitor. Used for filtering the voltage.
5. low-pass filter, RC circuit is implemented for blocking high signal.
6. Remark: it could be even smaller. Current Size: 5.19CM x 2.68CM.
7. In this design, Via hole D:0.3mm, Pad D: 0.6mm and Track width: 0.3mm and 0.5mm also use Polygon (Zone). (As Per Manufacturer Standards)