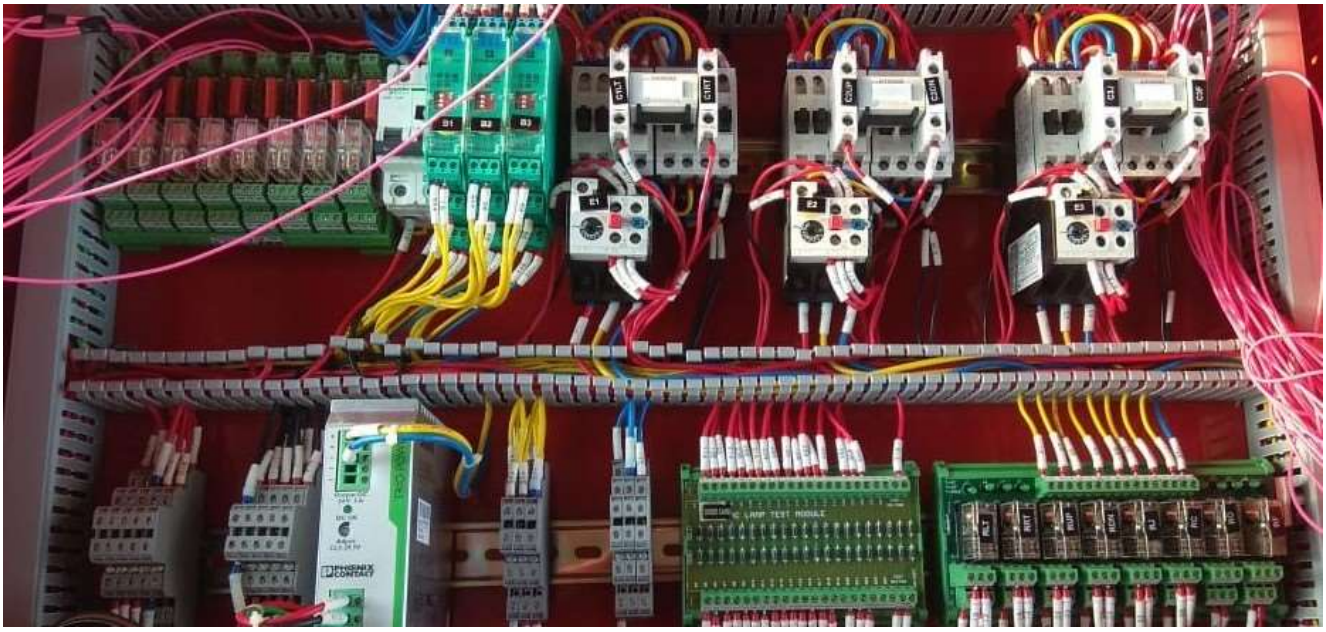
Some Highlights - Pritesh P. Shirsath

*Note: All Images and concepts shown, are subject to viewer's reference as sharing project completion experiences only.

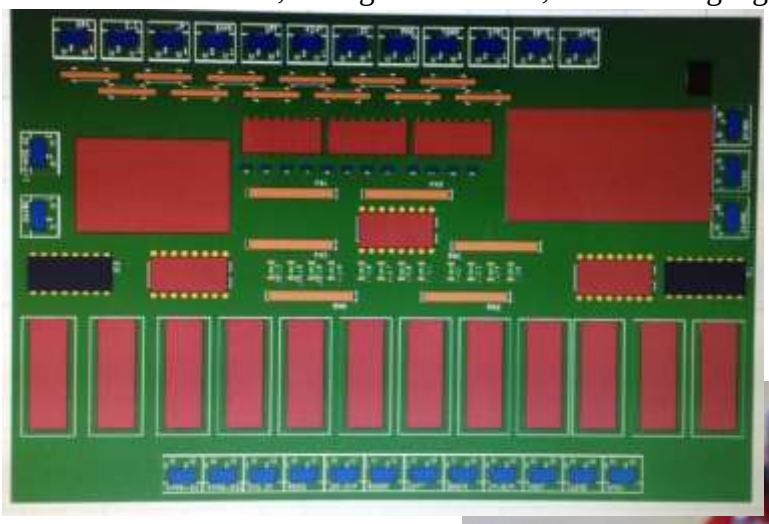
1. Wireless HVLR System for IOCEL (Petroleum Industry).

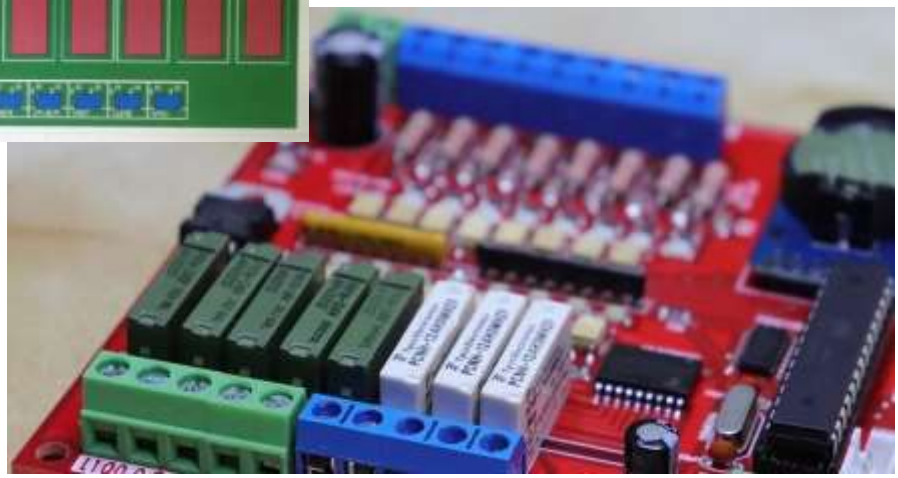


Prototype 1 board

This board placed on top chamber inside Flame Proof Junction Box.

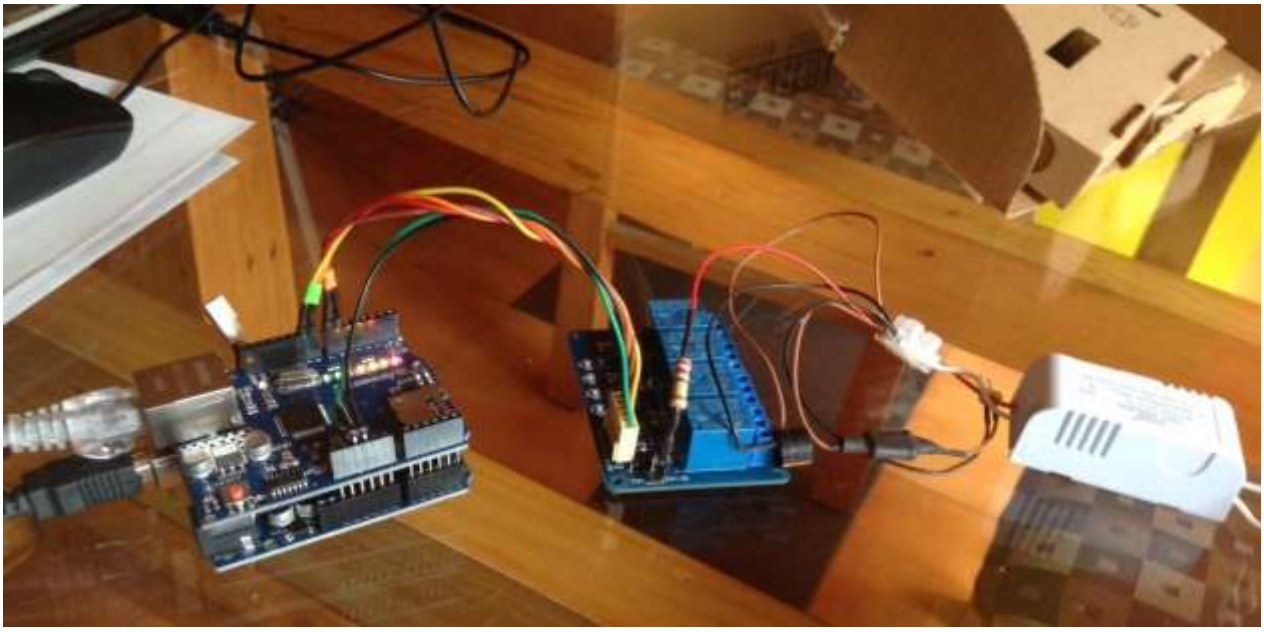
2. 8 Channel, configurable DIDO, for APG & gauging Industry



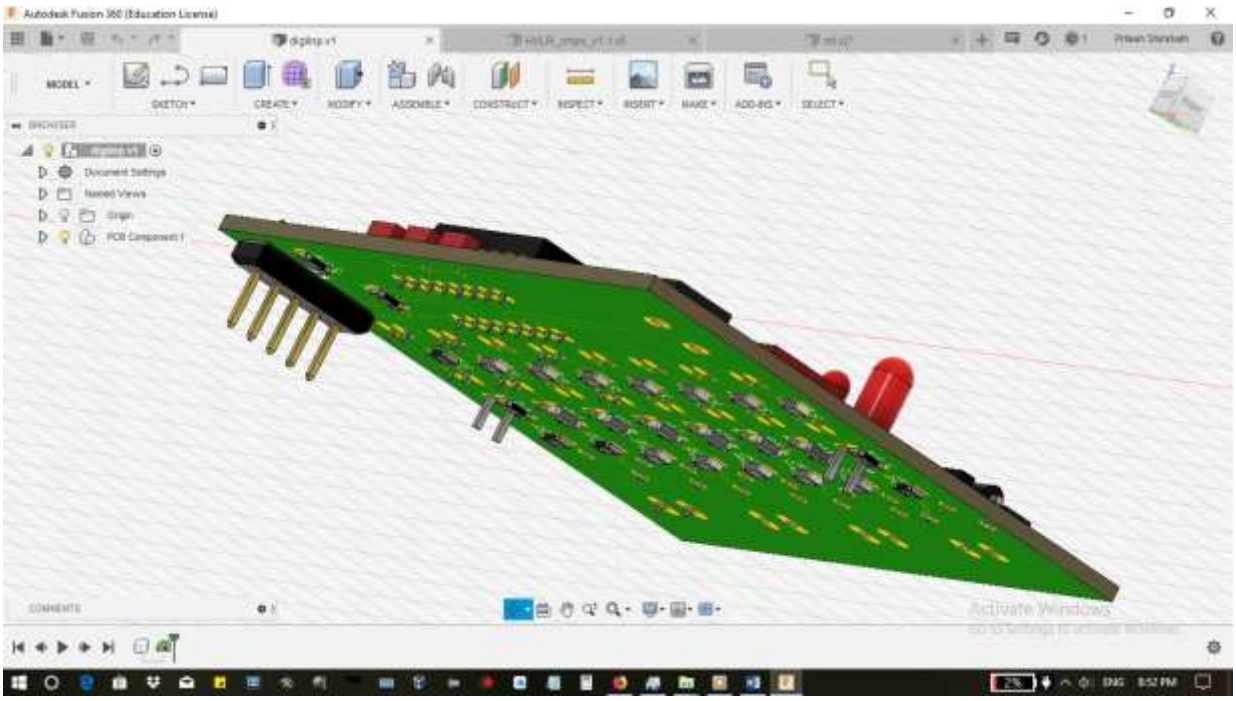


3. Testing of Designed and Developed Industrial Product (Right Bottom Corner).
*Related to Mechanical Fixture Inspection (with 0.5 micrometers of resolution), Instrumentation Electronics & IIOT.

4. Prototyping Ethernet based Smart Canteen System. (Capturing data from 3rd party devices via Ethernet and performing operations like, motor control, relay switching, etc.)

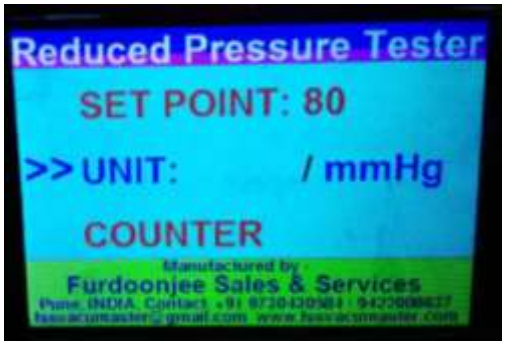


5. Working with Autodesk Fusion 360 for rendering.



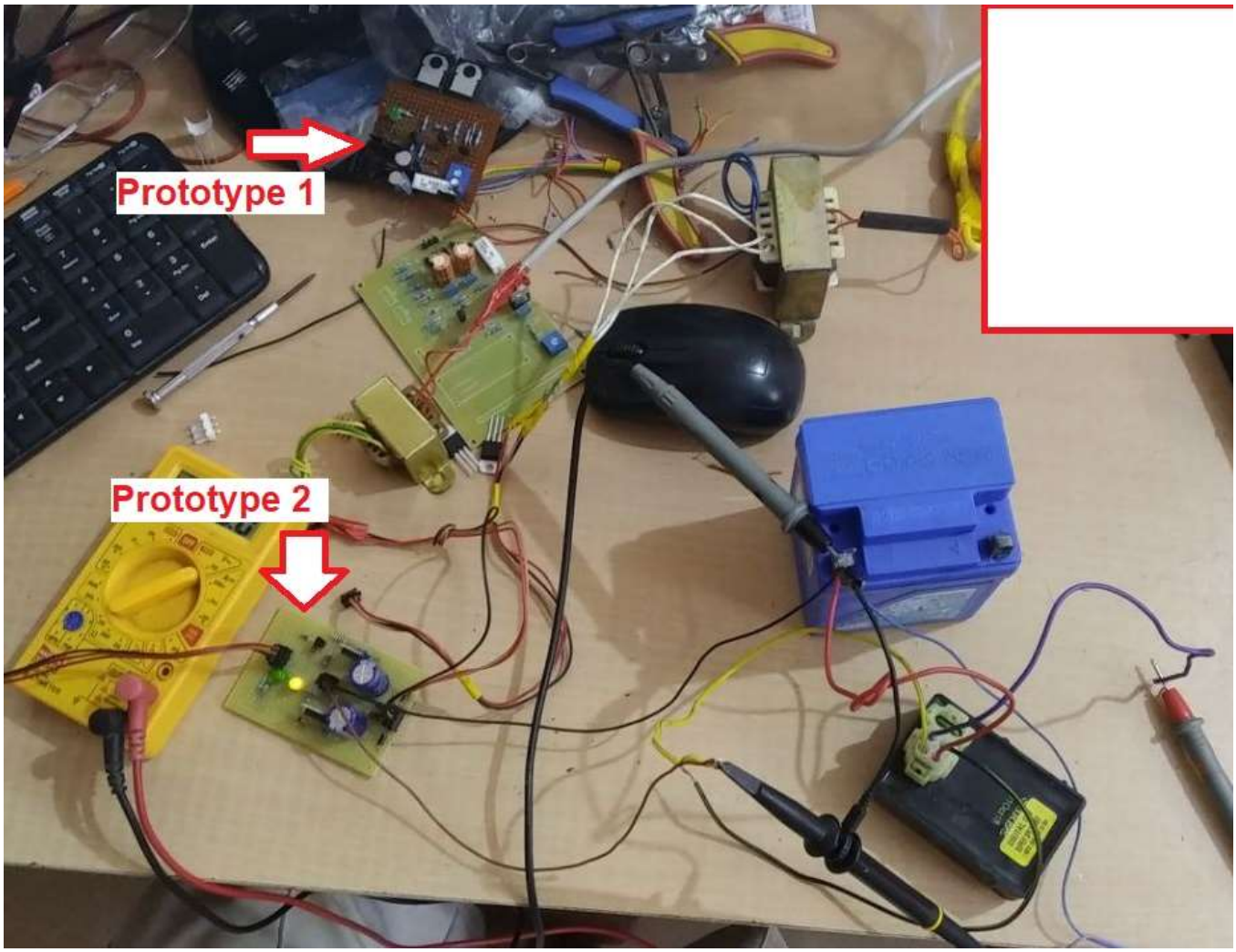
6. Worked on Mobile QR Automated Turnstile (REST-API based Stepper Motor Control).

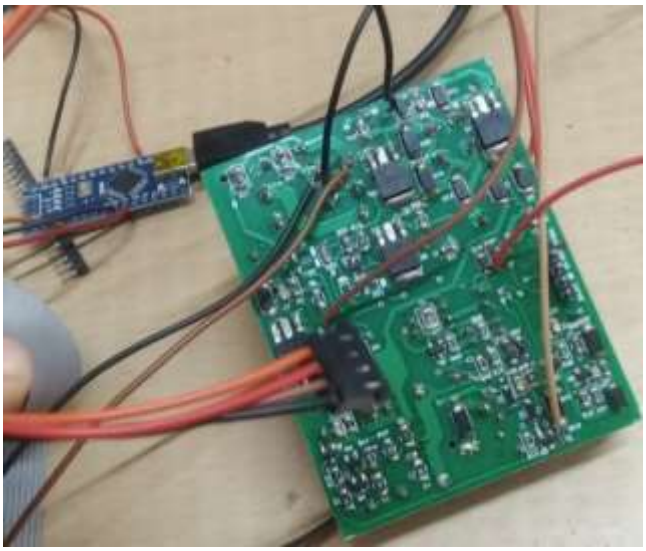
7. Vacuum Tester Machine (metal density to be checked after vacuum)


Reduced Pressure Tester
SET POINT: 80
>> UNIT: / mmHg
COUNTER
Manufactured by :
Furdoonjee Sales & Services

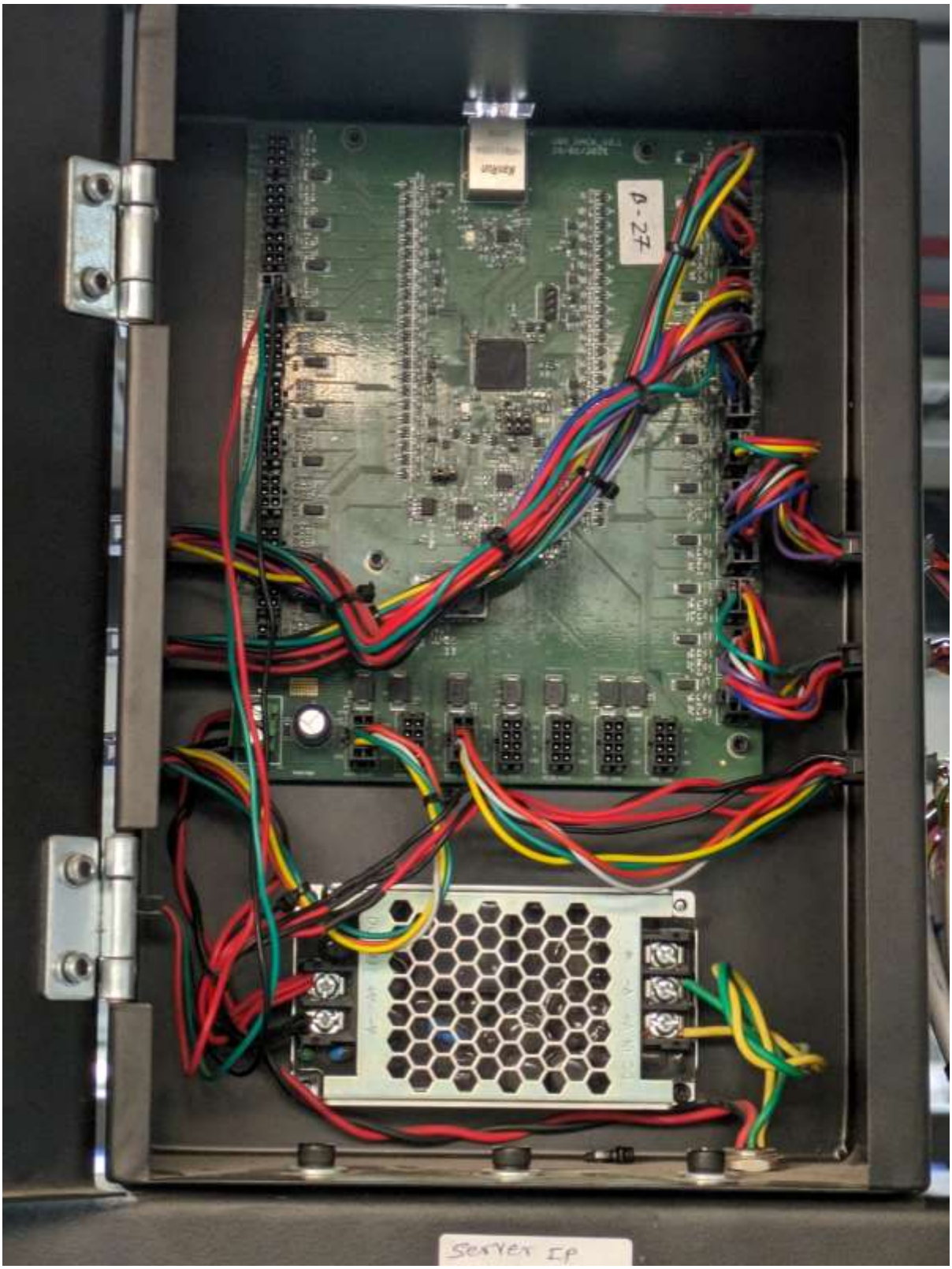

Machine Start Button

8. RMP Tester using micro-controller (input to CDI Unit)

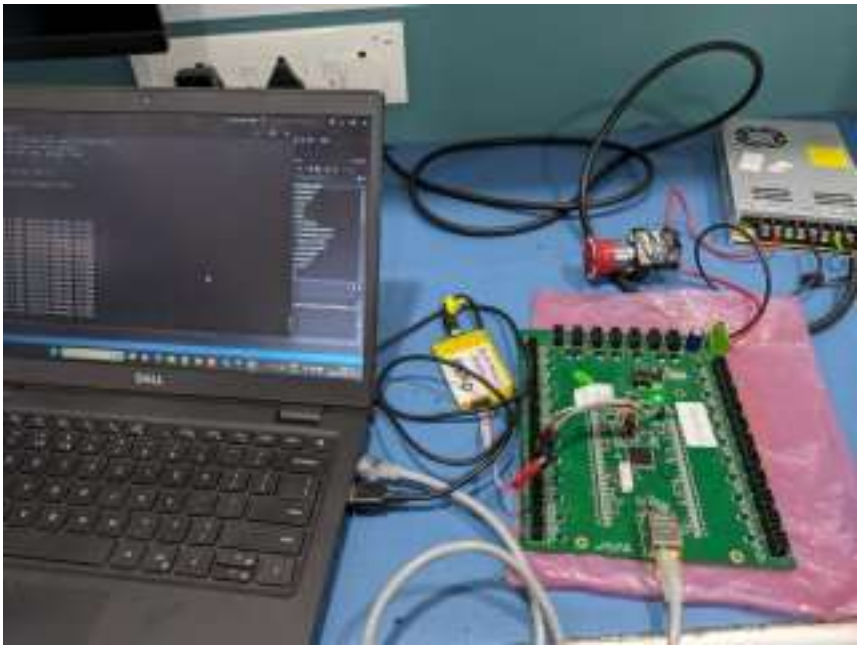




9. a. Rack – Bin Indicator Board

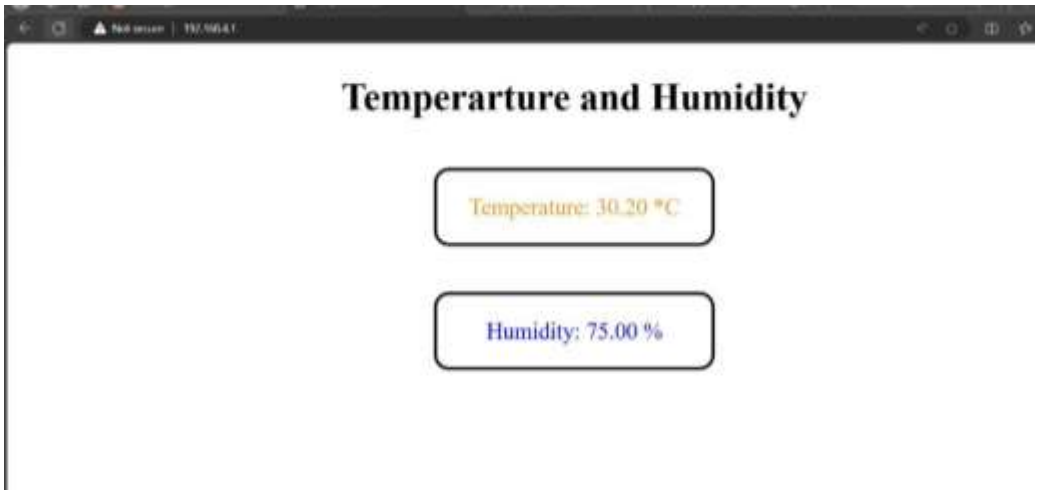


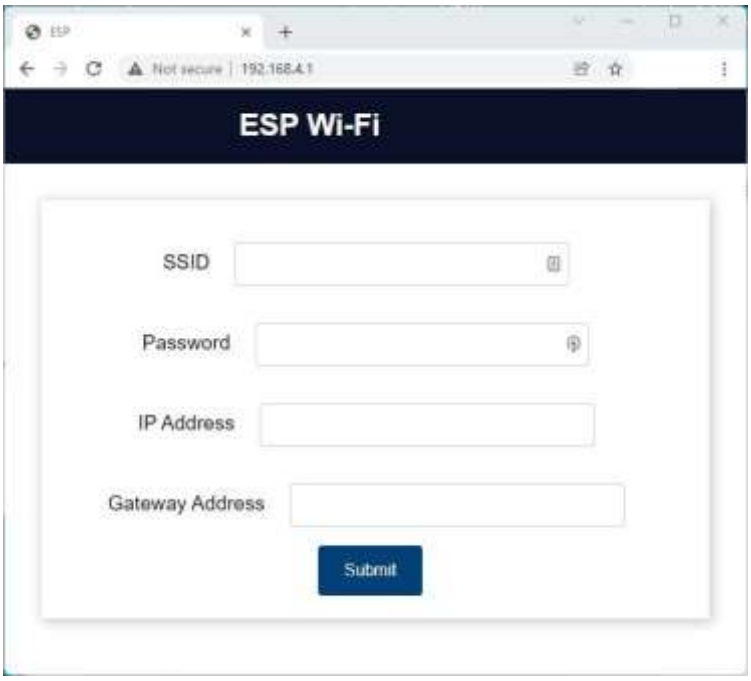
9.b. Programing and soft testing.



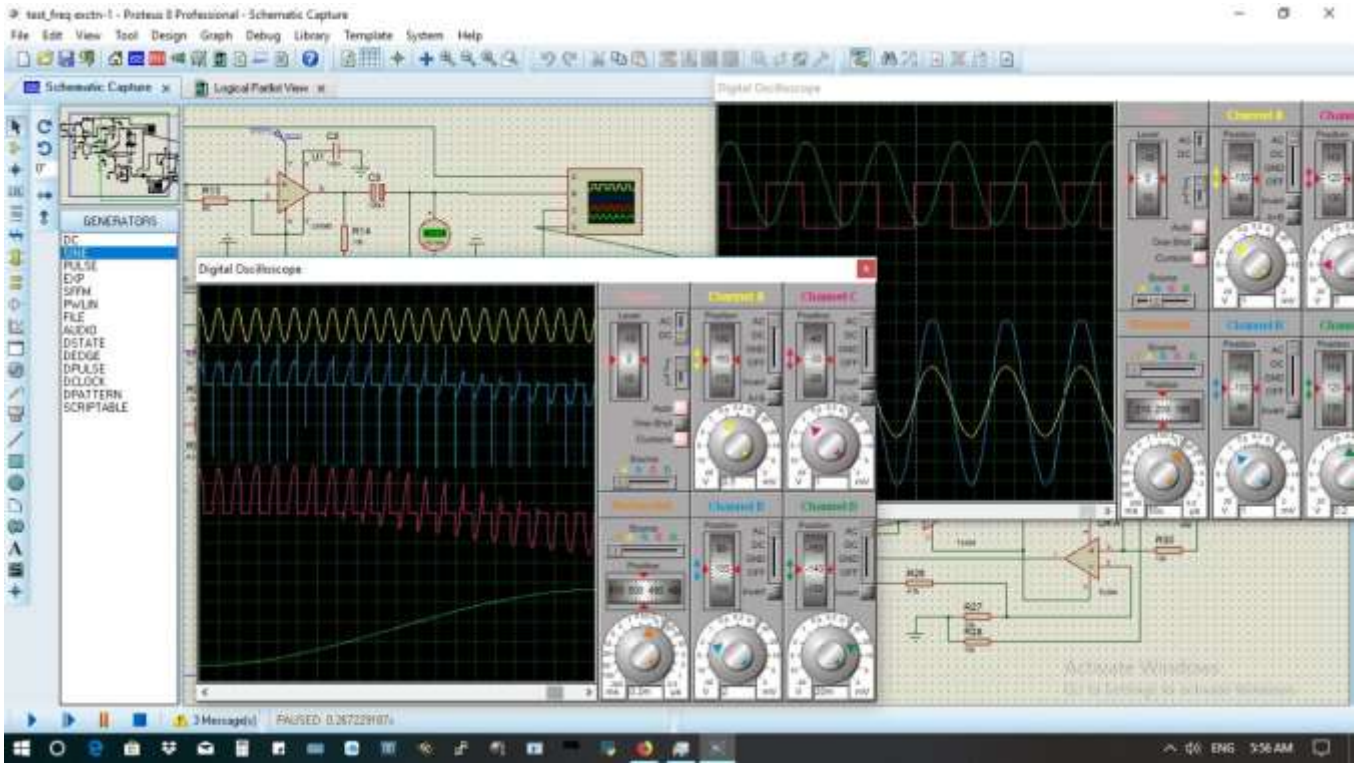
10. In-rush Board for hot swapping. (6 layer board, can carry upto 80 Amp)

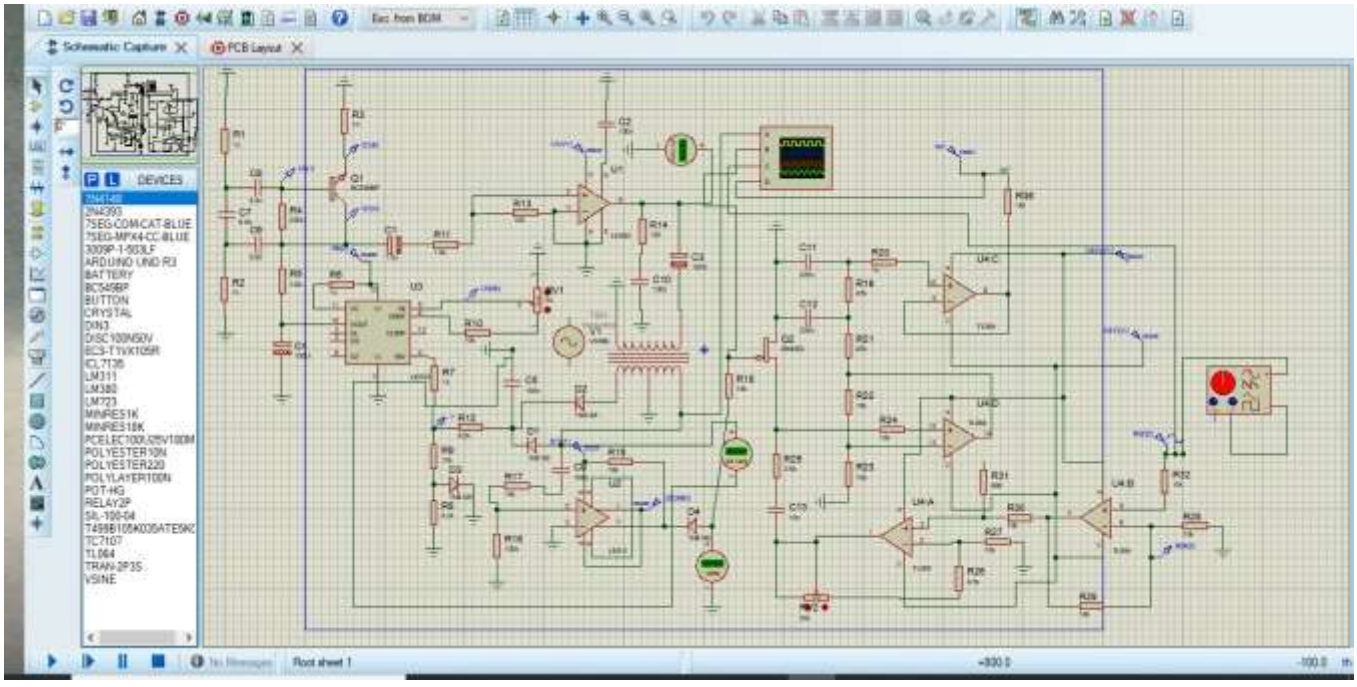
11. Server Room Temperature and Humidity Monitor and Notifies



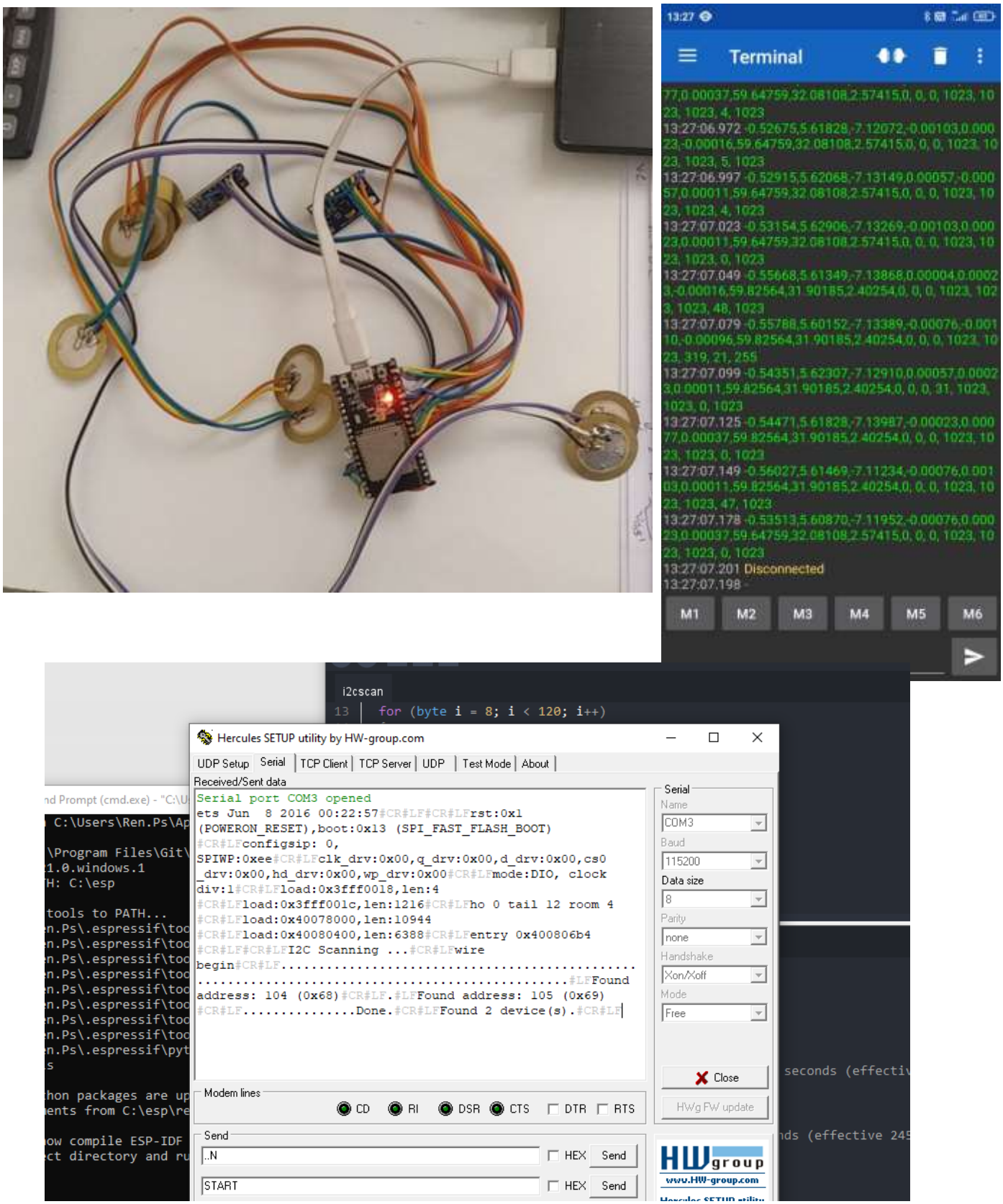


12. Circuit Simulation and results on Protel – Proteus (Reverse Engineering for market avaible Product and here is the circuit for Signal Conditioner for transducer)



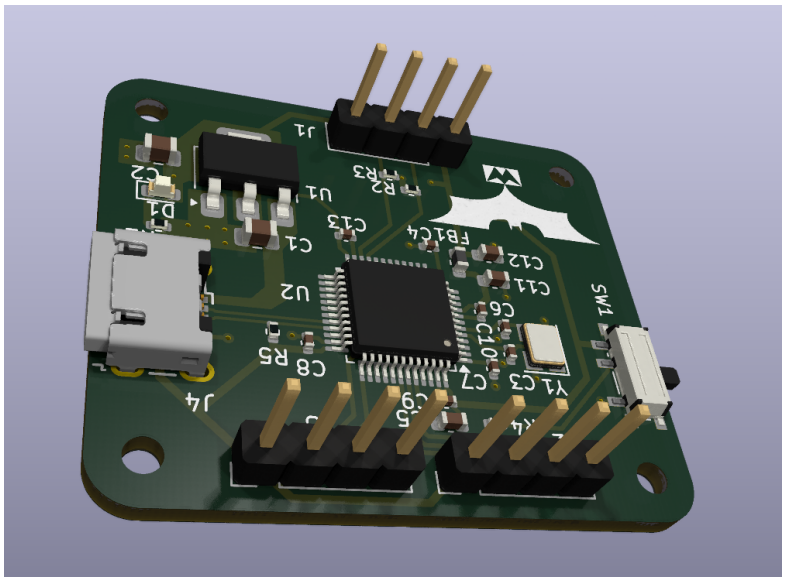


13. Smart Cricket Bat (Sensor & MCU during prototype, Bluetooth capability)



USB communication based peripheral usage board for general purpose as education kit.

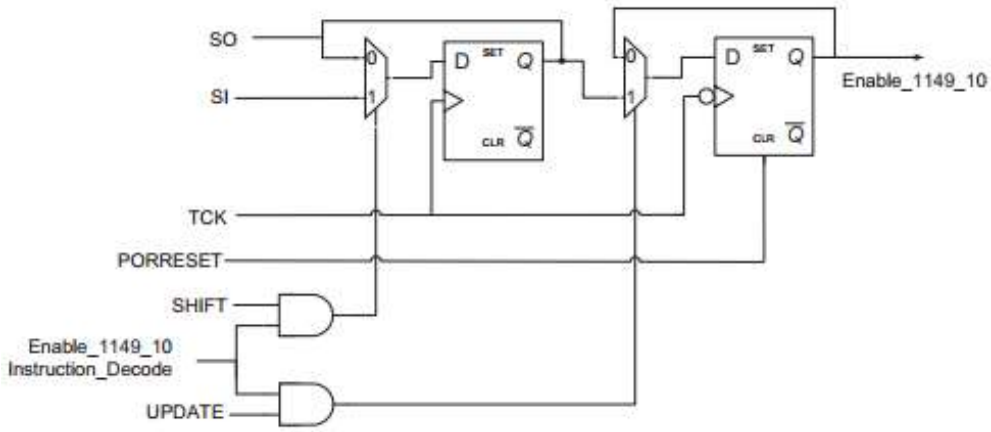
Based on STM32 ARM-M3 Cortex Processor.



14. ***Please Visit the links:***

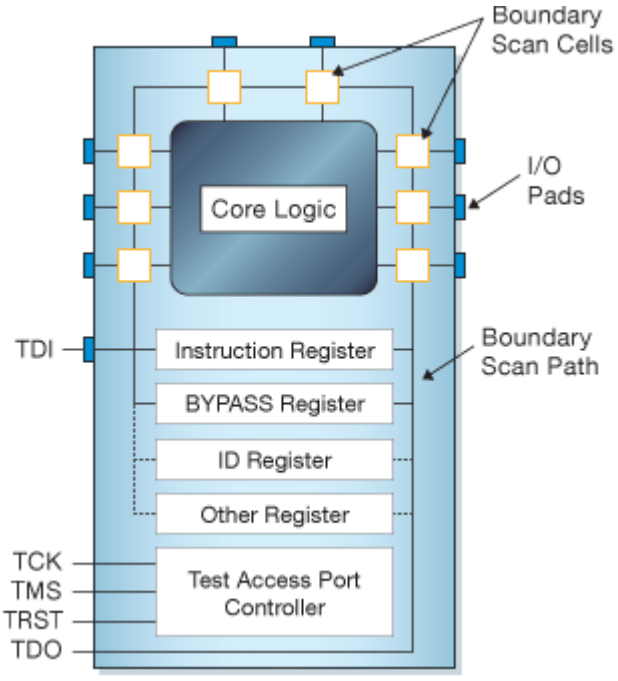
- Test Data Resister for asserting 1149_10_enable (In IEEE 1149.10)

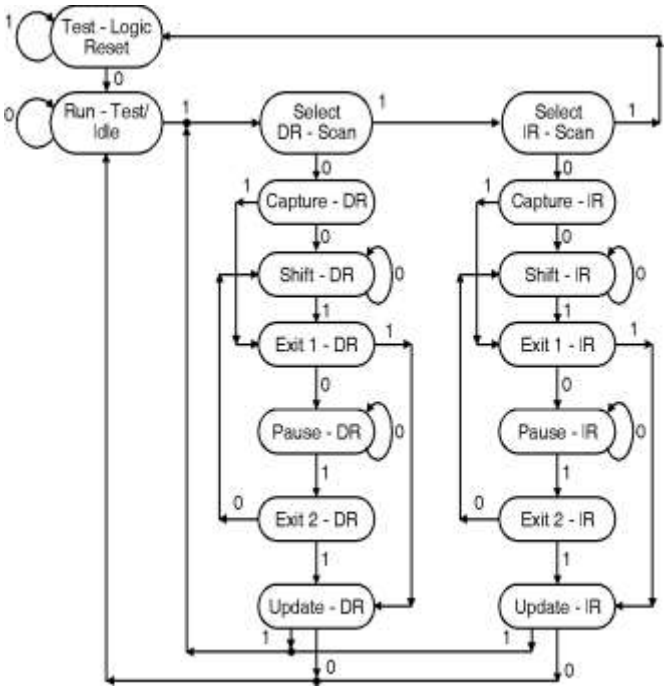
  https://www.edaplayground.com/x/Bw46



- State Machine JTAG Registers + TAP Controller (In IEEE 1149.10)

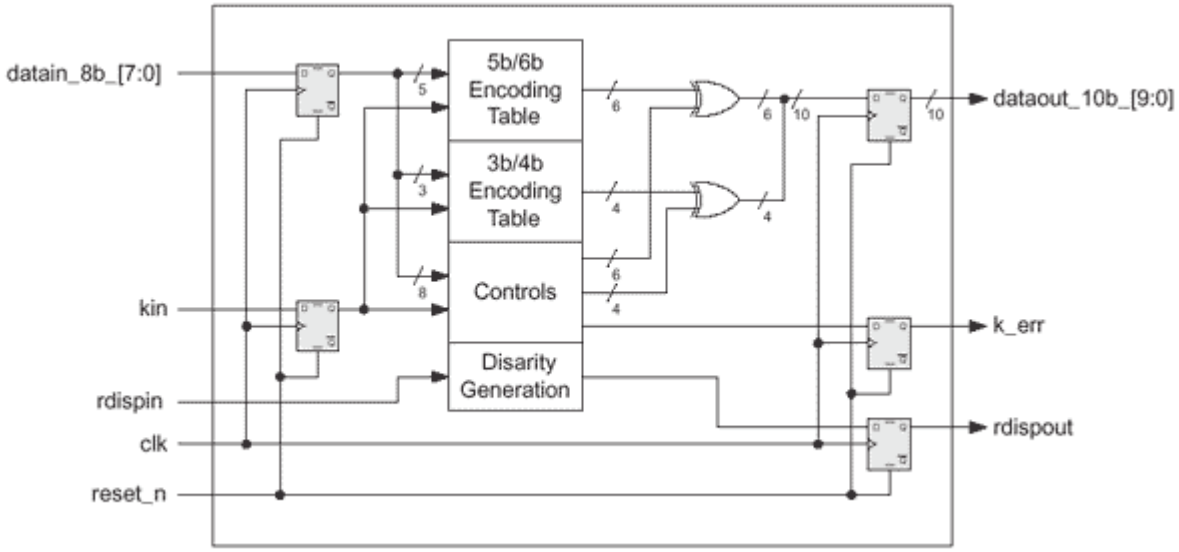
  https://www.edaplayground.com/x/HMk2





- 8b/10b Encoder (In IEEE 1149.10)

  https://www.edaplayground.com/x/ddWf

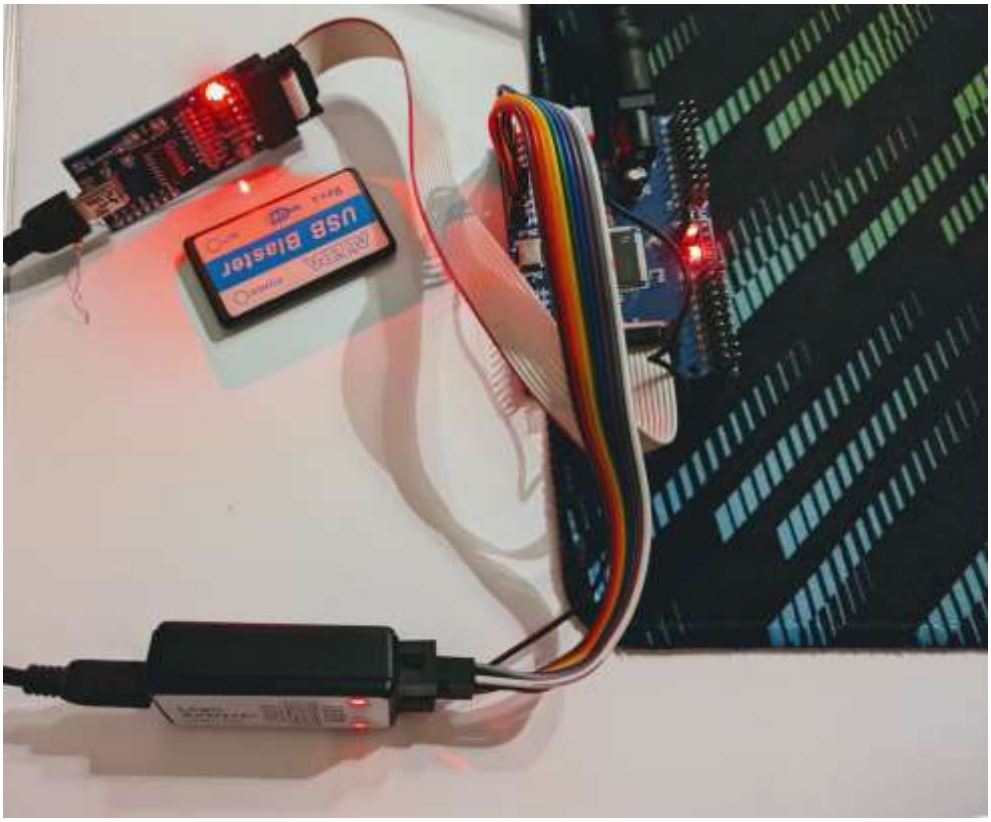


- Introductory RTL to GDSII flow (ASIC Flow) using OpenSource EDA tool & a RISC-V based 32bit PicoRV32 a CPU core is implement with SKY130 PDK. And PnR, DRC, LVS verification is performed, then Analysis like Static – IR Drop, leading to Practicing Physical Design. : https://github.com/Ren-Ps/PD_RTL2GDS_SKY130_ps

- Shell script based installation, environment setup & template of open source tool chain for Analog design purpose and SKY130 PDK.: https://github.com/Ren-Ps/tool_analog_script_ps

- TCL From Introduction to Advanced Scripting Techniques in Design and Synthesis, QoR, CSV to SDF, Procs, and more: https://github.com/Ren-Ps/VSD_TCL_advance/tree/main

15. Using CPLD for replacement of PLA (PLS153AN) implemented logic which is used in PABX System’s controller interface card.



Here, Given logical table is implemented on customer provided hardware.