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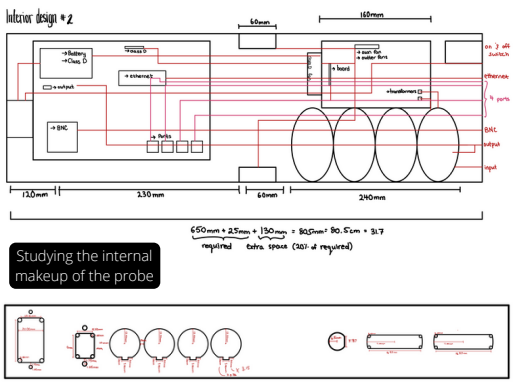
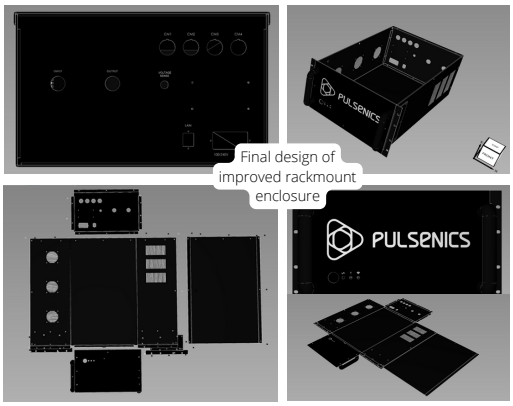
400 AMP PROBE ENCLOSURE - PULSENICS





What?

- Design an enclosure to reduce assembly time for probe calibration and set-up
- Implemented **Value Stream Mapping** to visualize the entire process from start to finish; including current state and the desired future state
- Carried out **5S** methodology to find ways to better utilize the available space within the enclosure and streamline the assembly process

How?

- Produced **3D models** using Proto-case designer Pro and detailed 2D drawings for enclosure assembly
- Researched various **materials** and their characteristics, such as electrical conductivity, corrosion resistance, and durability, in order to determine the best material for an electrical enclosure
- Learned about the probe's internal circuit makeup, as well as the importance of proper vent placement, through a combination of research and consultation with experts in the field

Results

- The design fulfilled its purpose, and **reduced assembly time by 15%**
- The design incorporated features such as larger ventilation openings and strategically placed fans to improve air flow and reduce overheating, as well as safety features like reinforced walls and protected electrical components, resulting in a more efficient and safer enclosure.

ENCLOSURE COMPONENT MEASUREMENTS AND CONNECTION REQUIREMENTS

- Made preliminary sketches for the electrical components, used measurements from GrabCAD to cut out the enclosure design, and organized the required connections of each part to create an easily accessible and easy to assemble enclosure