

Progress Report

October 15, 2025 – November 10, 2025

ChenLin Wang

1) Weekly Coverage

- Week of Oct 15–21: Completed the core 3D model structure for the device housing, including the internal mounting framework for electronic components.
- Week of Oct 22–28: Added detailed features such as openings, fastener slots, and cable routing channels. Assisted the team by reviewing mechanical fit concerns.
- Week of Oct 29–Nov 4: Refined the enclosure design based on feedback; prepared rendering views for documentation.
- Week of Nov 5–10: Finalized the model for 3D printing; verified clearances for internal boards and connectors.

2) Plan or Target Work

- Perform final checks on tolerances and wall thickness for 3D printing.
- Conduct an initial prototype print (pending availability of printer).
- Integrate the model into the final thesis documentation and assist in preparing visual diagrams.

3) Individual Accomplishments

- Completed full 3D model of the outer housing and internal mounting system.
- Ensured compatibility with PCB layout and wiring paths.
- Provided visuals and structural assessments for the project team.
- Prepared the model for prototype manufacturing.

4) Reflection

Although my involvement in the written portion of the thesis has been limited, I contributed significantly to the hardware aspect by delivering the complete 3D model for the device. The work strengthened my skills in mechanical design, precision modeling, and collaboration with electrical and documentation teams. The next step is to validate the model through 3D printing and finalize it for project integration.

