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HARDWARE DEPARTMENT

WEEKLY REPORT

TEAM: DELIVERY ROBOT-HARDWARE

DATE: 1/12/2025-7/12/2025

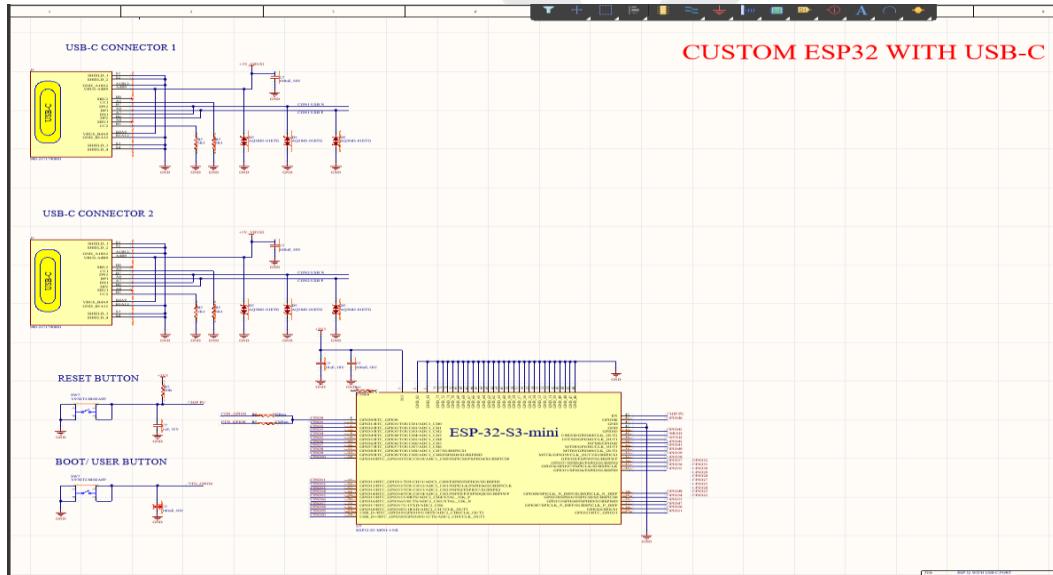
PRESENTED BY: SIDDHARTHA

WORK UPDATES:

This week, I worked on better understanding Altium Designer features by recreating a more detailed section of the ESP32-S3 schematic, including the USB-C connectors, passive filtering network, CC resistors, reset/boot buttons, and the ESP-32-S3-mini module connections. This helped me understand USB-C pin mapping, correct resistor-capacitor placement, and how to structure functional blocks in a schematic. The work strengthened my understanding of practical schematic design for custom boards.

AT PRESENT:

Currently, I am improving my understanding of schematic flow, net labeling, and organization by rebuilding these functional blocks from the ESP32-S3 design. I am focusing on making clean symbol connections, understanding USB-C wiring requirements, and ensuring proper integration of buttons and passive components. This practice is helping me get more comfortable with Altium's tools and improving my accuracy in creating production-ready schematics.



FUTURE GOAL:

Next week, I plan to continue with designing the remaining parts of the schematic to construct a functional ESP 32 board, including regulators, power distribution, and additional interface components. Gradually, I will move from following tutorials to designing small custom circuits independently. The main goal is to gain enough confidence and proficiency to start contributing directly to the delivery robot PCB design we are developing during the internship.