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Project Goals: The primary goals of our project included measuring the current, voltage, and power of the specified external load, that being a 208V, 400A, 60Hz wave. Using the aforementioned measured data, we would calculate the phase angle and power factor of the system. Furthermore, we wanted to be able to display this information onto an LCD and the ECE Lobby TV, which would be done through interacting with a database that would simultaneously be used to store the measurement data. Finally, the data would also be stored locally onto a micro SD Card. We have partially met some of these goals, but overall still require further testing to assure that they are completely met before the demo. More specifically, we have met measuring voltage, current, and power, displaying data on the LCD screen, and still need further testing on the other goals to meet the standards we set in the Team Contract.

Expectations: The procedures established in the expectations section were for the most part followed, with our group working collaboratively and consulting a TA when in need of assistance.

Roles: The roles currently established differed slightly than the initial contract mentioned, which was working on it overall as a group. Although we still did this partially, certain subsystems were focused on by those more experienced in the area, meaning that often a single person would focus on the majority of a subsystem. Overall interaction between subsystems and other work related to the project was still tackled as a group. We did not assign a leader, but instead just allocated different parts of the project to different members.

Agenda: Our team made decisions on the project through an overall consensus, often even consulting with our TA for advice before deciding on making a change. Our goals were set

periodically throughout the semester, aiming to achieve certain measures of progress before certain deadlines, for instance, finishing a PCB before a certain deadline. If an issue were to come up, we would discuss the matter with the TA and proceed from there. Steps to fix the issue could involve trying new approaches to the problem, simplifying our design, or eliminating aspects of the projects that were not a priority to meet the high level requirements.

Team Issues: Issues we ran into involved finding components with the exact supply voltage to match the ESP32, often resulting in getting parts of differing supply voltages such as the LCD and micro SD card module. Another issue was having the wrong footprint on the pcb board layout due to not recording which micro SD card module was used (we had several recorded but only ordered one). This was resolved by communicating the difference and changing the footprint on future layouts. The process set out in the team contract was for the most part followed, but although the project was a collaborative effort, we often worked on different portions alone, and then shared progress when we met. In hindsight it may have been more effective to collaborate in person on the PCB layout instead of doing it alone and uploading it to our github.