Hybrid Start (Group 9)
ECEN 404 - 901

Update Log 9
Week of Mar 28, 2022 - Apr 3, 2022

- **Ryan Aultman** (Storage-to-Output):
    - This week, we further tested the connection between the battery and inverter to ensure that the connection was stable. After attempting to power the inverter from the DC power supply, I found that the limited current prevented it from running successfully. I connected the battery and found that the inverter worked as expected.
- **Thomas Bergeron** (Digital Interface):
    - This week I was able to validate the startup cycle and emergency switch with the MCU as well as fix some issues that had appeared with the navigation of the GUI. I don't know when these problems started but after excessive testing they have been eliminated.
- **Janet Park** (Controls/Monitoring):
    - This week, I was able to validate that Hunter's PCB is able to provide power to my microcontroller. Furthermore, when viewed with the oscilloscope, the interrupt service routine for startup cycle results in the correct output signals. However, an issue that Thomas and I encountered upon integrating is that the polarity of the signals differ from those viewed on the oscilloscope. We plan on fixing this issue by the end of this week. Furthermore, Ryan and I were able to validate the inverter voltage, due to the low voltage alarm of the inverter being triggered.
- **Hunter Ruff** (Input-to-Storage):
    - This week, I was able to fully validate my buck converter integration with the microcontroller and the Raspberry Pi. Both are functional under power from my PCB. I am putting together and debugging the driver PCB that sends power to the switch coils and will be testing its integration with the microcontroller. I also am experimenting with a different pass transistor for my battery charger to improve efficiency.