

ENGR489 Supervisor Meeting Log

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March 1st

The first meeting of the uni trimester. We went over my work with the C2000 microcontroller over summer, and what I'd done with it. We went over the project plan, and what I needed to accomplish. I had been able to drive a motor with three-phase AC, and Adam wanted me to get AC waves of different magnitudes and phases at the same time. Also, different waveforms - for instance, one full AC wave and one half-wave (just the top half). The synchronization and timing of AC waveforms were going to be very important, so I was to test how reliable this was. We also agreed that 11am Friday was going to be our regular meeting time. The rest of the day, I spent working on testing the GaN inverter board.

March 8th

In this meeting, we discussed a plan for the rest of the year, and what I should be working on. The first few items on the list were background, to make sure that I could make the equipment do what we needed. I had done a few things, like make the motor spin, make the board produce random waveforms, etc. Adam explained in detail the goals of the project, and why I'd have to do each of the prereqs before the flux pump could work. First I'd need to clean up the PWM signal coming out of the board, by tuning it to the frequency of the inductor. I also had to check the three-phase output from the inverter could operate independently including driving different inductances on each output. Also, I'd need to make sure the phases could be accurately synchronised.