

EE/CprE/SE 491 WEEKLY REPORT 5

March 16- March 29, 2021

Group number: 47

Project title: Triple Output Power Supply

Client &/Advisor: Dr. Tuttle

Team Members/Role:

- **Benjamin Almquist- Test Engineer**
- **Mary Le- Test Engineer**
- **Michael Neilson- Technical Expert**
- **Adam Simodynes- Report Manager**
- **Krishan Sritharan- Meeting Scribe**
- **Chance Webster- Meeting Facilitator**

○ **Weekly Summary**

The group met for reporting progress made throughout the two weeks. During this time, the group ordered the list of parts needed for building the circuits to be able to test in later weeks. Circuit prototypes were also designed during this time for testing the parts once they came in.

○ **Past week accomplishments**

- Ben
 - Designed an electronic load circuit prototype for testing voltage regulators.
- Mary
 - Started working on getting interrupts working on the MCU and finalised the BUS design.
- Michael
 - Finalized regulator schematic for the switching regulator, made progress with adjustable circuits and inputs and outputs of MCU.
- Adam

- Designed an electronic load circuit prototype for testing voltage regulators.
- Krishan
 - Getting parts together via Digikey and finalizing the order by the end of the week.
- Chance
 - Scheduled time to test in TLA and assisted building the circuitry.
- **Pending issues**
 - We had planned to meet in a lab setting to test our parts and start designing prototypes. We made reservations for lab workbenches in the TLA, but we were unable to gain access to the TLA during our reserved time because it was closed. We were able to make preliminary designs without the lab equipment and have now made new reservations for lab workbenches this week.

○ **Individual contributions**

| <u>NAME</u> | <u>Individual Contributions</u> <i>(Quick list of contributions. This should be short.)</i> | <u>Hours this week</u> | <u>HOURS cumulative</u> |
|--------------------|--|-------------------------------|--------------------------------|
| Ben | <ul style="list-style-type: none"> ○ Finalized designs for switching regulator circuitry, added to schematic | 5 | 25 |
| Mary | <ul style="list-style-type: none"> ○ Finalized regulator schematic for the switching regulator, made progress with adjustable circuits and inputs and outputs of MCU. | 5 | 25 |

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|---------|---|---|----|
| Michael | <ul style="list-style-type: none"> ○ Started working on getting interrupts working on the MCU and finalised the BUS design | 7 | 32 |
| Adam | <ul style="list-style-type: none"> ○ Finalized designs for switching regulator circuitry, added to schematic | 5 | 27 |
| Krishan | <ul style="list-style-type: none"> ○ Getting parts together via Digikey and finalizing the order by the end of the week. | 3 | 20 |
| Chance | <ul style="list-style-type: none"> ○ Scheduled time to test in TLA and assisted building the circuitry. | 6 | 25 |

○ **Plans for the upcoming week**

- The plans for the upcoming week are to go to the TLA and test our circuits to verify their functionality. If any problems occur we will troubleshoot them until they are all resolved. Once testing is complete we will attempt to complete a prototype build.

○ **Summary of weekly advisor meeting**

- The group continues to try to meet with our advisor, however there are very few times that work for a majority of us and him as well. We have emailed him many times regarding ordering parts and he gave us the information needed to order the necessary parts. He has also let us know that he does not want to have a consistent meeting time but when we need to meet with him to either reach out or to attend his office ours.