

What were the outcomes of the prior phase?

1. What did I plan to do?

- a. Wire and confirm output of AC/DC converter
- b. Review fusing plan
- c. Test servo power/strength against different voltages in its range
- d. Order power, belt, framework parts
- e. Plan electronics placement in box and wiring plan
- f. Test all Buck converters with power supply to ensure expected voltage output and operation
- g. Test a buck converter with the voltage from the AC/DC converter to ensure expected voltage output
- h. Wire and test the full power system – all buck converters, fuses, and AC/DC converter

2. What did I actually do?

- a. Wire and confirm output of AC/DC converter
- b. Review fusing plan
- c. Order power, belt, framework parts
- d. Plan electronics placement in box and wiring plan
- e. Test all Buck converters with power supply to ensure expected voltage output and operation

3. What did I learn? How were the plan and reality different?

- a. The buck converters were not fully tested with the AC/DC converter; their operation was checked with the power supply. They weren't tested with the AC/DC converter due to that our ring terminals were not the right size and we wanted to make sure the test was completed safely and correctly.
- b. The servo was tested but not with different voltages in its range because we needed to have the gripper printed to get an accurate idea of how much strength/power we need
- c. I learned it's really important to track overlapping tasks to make sure the dependent task can move forward on schedule.

Team level goal for next phase

- Power system powers servos and motors
- Gripper is tested
- Motors can move on frame
- User interface can control motors
- Enclosures are made
- Electronics are safely stored
- Drawing can be made without automatic tool change
- Draft paper done

- Draft poster done
- Draft video done

What do I plan on doing to ensure that my team has a successful review at the end of the next phase?

1. Order Buttons and final power components (2 hours, 9/30)
2. Finalized electronics placement in box and wiring plan with John and Andrew (3 hours, 10/7)
3. Wire and test the full power system – all buck converters, and AC/DC converter with Dylan (4 hours, 9/30)
4. Test Integration of motors with power system with Andrew (2 hours, 10/4)
5. Test Integration of servos with power system with Andrew (2 hours, 10/7)
6. Mount power components to bottom of electronics enclosure with Dylan (1 hour, 10/20)
7. Wire components with Dylan (1 hour, 10/20)
8. Work on draft poster (5 hours, by 10/25)
9. Write draft of power section for paper (3 hours, by 10/25)

What is standing in my way of meeting my next phase goals?

- Need to determine a solid plan and layout for the electronics enclosure
- Need to test the servos with the gripper to determine exactly how much voltage we need to provide them and then
- Need to get correct ring terminals for our wire gauge