

EE/CprE/SE 491 WEEKLY REPORT 06

3/26/2026-4/9/2026

Group number: 6

Project title: CyVital

Client &/Advisor: Dr. Meng Lu

Team Members/Role: Kate Endersby, Claire Haas, Max Tanruther*, Reza Choudhury*

○ Weekly Summary

We went over our design document and updated it, beginning to implement changes and discussing it with the TA. We then discussed our plans with Dr. Lu about what we need to implement in our design document and during our industry presentation. On the software side, we discussed our requirements and need to develop API docs and software tests.

○ Past week accomplishments

- Performed initial tests of the PCB
 - Measured voltage and current at test points
 - Tested button by hooking up to Digilent Analog Discovery and starting the CyVital GUI
 - Pressed button multiple times and observed if the behavior was detected
- Reviewed and adjusted project requirements
- Discussed potential business opportunities for our design

○ Pending issues

- The nonautomatic play has a problem where it needs the user to tap the graph before it actually starts playing still

Individual contributions

<u>NAME</u>	<u>Individual Contributions</u>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Reza Choudhury	<ul style="list-style-type: none">- Final PyTest cases for 80%code coverage- Ease of use and UI changes for ease of use	10	60
Claire Haas	<ul style="list-style-type: none">- Assembled second PCB- Continuity check and voltage/current measurements	21	75

	<ul style="list-style-type: none"> - Made revisions in the PCB layout such as revamped footprints - Total cost of PCB 		
Kate Endersby	<ul style="list-style-type: none"> - Updated the design document - Organized the development of future plans 	12	58
Max Tanruther			42

○ **Plans for the upcoming week**

- Create executable of current version using pyinstaller to test the ability to set up code
- Kate: Create API docs for the codebase
- Reza: Generate test cases using pytest
- Claire: Add on EMG, pulse oxidation, and EKG circuit onto PCB

○ **Summary of weekly advisor meeting**

We discussed with Dr. Lu our plans for finalizing our design and requirements. He encouraged us to develop a business plan for developing CyVital for future work, perhaps by adding our future business plan to our design document. He wanted us to stress the commerciability of our design – specifically the cost breakdown between our system and that of the BIOPAC – to the industry panel during our presentation. In addition, he wants us to work on creating the executable that the students will download to use the code.