
EE/CprE/SE 491 WEEKLY REPORT XY

Start Date – End Date Group

number: 22

Project title: Cy-Vital

Client &/Advisor: Professor Meng Lu

Team Members/Role:

Daniel Karpov: Data Processing

Jay Patel : Data Processing

Sajan Patel: Full Stack Software

Ty Beresford: Full Stack Software

Chuck Mallek: Physical / Electrical Design

(All the above information should be there in each weekly report. The format/color scheme etc need not be the same. However, please remove everything that is in a bracket from your final submission. These are just part of the template and need not be a part of the report.)

- **Weekly Summary** *(Short summary about what the group did for the week. This should be about a paragraph in length. These are just a few questions to help you get started. What was the overall objective for the week? In general, what tasks were completed? Were there any changes made to the project?)*

- **Past week accomplishments** *(Please describe/summarize as to what was done, by whom, when and, collectively as a group. This should be about a paragraph or two in length. Bulleted points are acceptable as well. Please keep only your technical details related to your project. Figures, schematics, flow diagrams, pseudocode, and project related results are acceptable, but please ensure that they are legible (clear enough to read) and to provide an explanation. If researching a topic, please add a few details about what was learned and how it is relevant to the project. If two or more people worked on a single task, be sure to*

distinguish how each member contributed to the task. Specific details relating to the assistance provided to other members may be included here. ***Do not include classwork, such as individual reflection assignments and group meetings as part of your duties.)***

- 🎬 Sajan Patel: I shortlisted potential libraries and looked into their integration into our program. Tested sensors from the kit given to us to see possible ways to implement them in our own kit

- Daniel Karpov: Started a test python program that uses panda api. Set up a script that uses a csv file and displays some of the data from it. I used api calls pd.read_csv() to get the data imputed into the program. I used .head() to get it to display the first 5 data points (default value). I was also able to filter the data using the following line: filtered_df = df[df[ ] > value].
- Ty Beresford: Began repository creation; expected to use Azure Devops to ensure proper fetch/push/pull without destroying the repository. This also allows synchronous development across a wide variety of skills.

- Jay Patel: Began tests on simple sensors using prebuilt software for the DAQ. Also began researching data analysis strategies for the various sensors provided.

- Chuck Mallek: Wired DAQ ADC to button sensor and used pre-built software to display on/ off on button press. Researched other sensors needed for the project and asked our client for them. Explored possible Arduino esp usage instead of measurement computing DAQ ADC.

- **Pending issues** *(If applicable: Were there any unexpected complications? Please elaborate.)*

  - Sajan Patel: No issues
  - Daniel Karpo: No issues
  - Chuck Mallek: no issues
  - Ty Beresford: no issues

- **Individual contributions** *(Creating this section is optional, but it is* ***Required to include the "Hours Worked for the Week" and their "Total Cumulative Hours" for the project for each member somewhere relevant in your report. Your individual weekly hours should be at a minimum of 6-8 hours for this course. So please manage your time well. Also, ensure that individual contributions support your claim to the weekly hours. Be honest with the reports.)***

NAME	**Individual Contributions** *(Quick list of contributions. This should be short.)*	**Hours this week**	**HOURS cumulative**
Sajan Patel	Found libraries for DAQ software. Helped look into the kit given and find what we want to implement into our program.	4	11

Jay Patel	Began testing on the button sensor. Began formalizing methods for data acquisition and signal processing	7	20
Daniel karpov	Began testing some data acquisition tools and got more familiar with the sensors / how to set them up and use them.	5	12
Chuck Mallek	Wired the button sensor to the DAQ ADC for input to premade software.	4	11

Ty Beresford - Created repository to maintain code repository and extra actions within repository (4.5 hours)

- **<u>Comments and extended discussion</u>** *(Optional)*
  Feel free to discuss non-technical issues related to your project.

- **<u>Plans for the upcoming week</u>** *(Please describe duties for the upcoming week for each member. What is(are) the task(s)?, Who will contribute to it? Be as concise as possible.)*
  Sajan Patel: Implement core functionalities into our own program so that we can start testing basic sensors. Use python and DAQ libraries to set up the basics for program. Should take a week or 2.

  - Jay Patel: Start on developing software to acquire and analyze signal input from the daq using the provider's libraries
  - Daniel Karpov: Get first data to show up on our computers locally and start displaying this data.
  - Chuck Mallek: Start looking into the other sensors (heart rate and blood oxygen) given to us by our client ex. functionality and wiring schematics. Possibly wire another sensor onto our DAQ ADC for further software development.
  - Ty Beresford: Develop some low-level models to include with Python data acquisition; this would include finding and identifying possible alternative routes to diagnose issues.

- **<u>Summary of weekly advisor meeting</u>** (*If applicable/optional)*
  (Provide a concise summary on the contents and progress made during the advisor meeting.)

<u>Grading criteria</u>

Each weekly report is worth 10 points. Scores will be awarded as follows:

- **8 – 10**: Progress for your project seems to be suitable. Documentation and hours reported by team members are adequate.
- **6 – 8**: There is scope of improvement both in your report and your project progress. Can consult with instructor/TA after class for further inputs.
- **< 6**: Please talk to instructors/TA after class hours about any difficulties that you/your team is facing.

Each weekly report should be unique in that they have a unique set of supporting details for your contributions. So please do not just copy your reports from the previous week. In addition, please avoid any personal pronouns (he, she, I, you). Try to keep your reports as neat as possible.