Journal #1

Louis Harshman - WaveSpeak

Goals:

* Week 1
  + Develop a fully functional website with responsive design using HTML, CSS, and JavaScript, integrating key features such as contact forms and interactive elements, aiming for completion within the next 2 weeks.
  + Finalize the google calendar project timeline and get it embedded on the website to make my life easier when it comes to timeline adjustments.
  + Provide constructive advice to a fellow classmate by offering specific insights into their project, emphasizing collaboration and knowledge sharing, with a goal to enhance their understanding and improve project outcomes.
* Week 2
  + Start the 3D model and CAD design by starting the sketches and initial concepts, incorporating feedback from advisors, and establishing a proper fusion 360 project.
  + Actively assist a peer with an aspect of their project something like troubleshooting code, providing design suggestions, or conducting a peer review, ensuring that the assistance has a measurable impact on the overall project quality and \progress.
  + Complete the remaining sections of the blog with the aim of publishing the finalized blog within the next week.
* Week 3
  + Generate a precise front plate design for the tablet including accurate dimensions and specifications with parameters to keep an agile project.
  + Establish a GitHub Pages repository for the website, ensuring easy version control, and regularly updating the repository to reflect changes and progress on the project.
  + Provide meaningful support to individuals under your assistance by addressing specific challenges they face in their projects, sharing relevant resources, and maintaining regular communication to ensure their progress aligns with project goals.
* Conclude Journal #1 by reflecting on key learnings, challenges faced, and strategies for improvement, ensuring that the journal entry is well-organized, comprehensive, and submitted before the designated deadline.
* Purchase the required display for the project, considering specifications, pricing, and delivery timelines, ensuring that the chosen display meets project requirements and is within budget constraints.
* Prepare the 3D model for potential changes in display dimensions by creating adaptable design elements, documenting the flexibility within the model, and conducting a thorough review to mitigate any issues that may arise during the integration process.

**Research Goal**: Learn about how to handle keyboard circuitry.

My Research and What I learned:

I decided to research more into keyboard technology for my button back-plane. I still plan on using a PCB with buttons to handle user input with tactility. This following video helped me learn how to do PCB design in KiCad. <https://youtu.be/JqpBKuEVinw?si=k0k1UDmzw2G0xcvK>

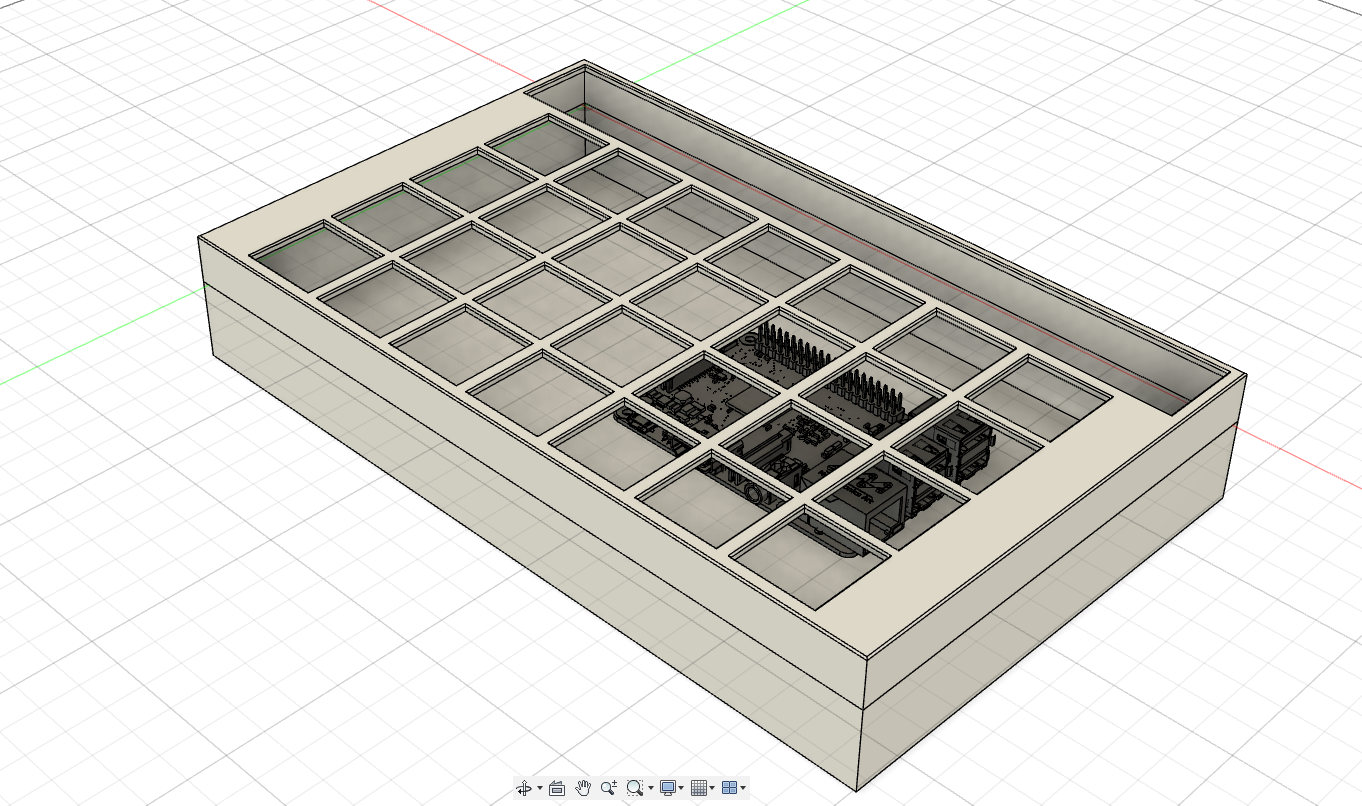
I learned that I probably would need to consider a programmable micro controller or sacrifice an existing keyboard for the electronics handling the button circuits.

<https://golem.hu/guide/controllers/>

Accomplishments

The [www.wavespeak.org](http://www.wavespeak.org/) website is up and running on GitHub pages. In my opinion it turned out pretty good and after getting a 3D Model fledged out, I think the landing page looks a lot cooler.

The CAD model is reaching a point where I’m waiting for my display to come in so I can measure and make sure my tolerances are correct.



ダイアグラム

自動的に生成された説明



Reflection on goals and Timeline:

I currently believe I’m ahead of schedule by about a week. I need to order the display so I can finish modeling the case so that will set me back in the future. I also need to design the PCB because that is an integral part of the design.

I am focusing solely on modeling and manufacturing the minimal physical product before moving into a “2nd phase” of sorts for programming and developing the software.

**Goal Reflection:**

* Begin 3D Model/CAD design.
  + I blew this goal out of the water and I’m proud of how fast I was able to learn CAD.
* Assist someone in a small but meaningful way with their project.
  + I helped Jayal setup basic configurations for his website. I want to help all the projects in the class in some way.
* Finish blog section
  + I got the blog section made but I need to write the blogs for the last two weeks.
* Get calculator front plate drawn up.
  + This wasn’t too hard but getting the buttons centered was a little difficult.
* Set up website with GitHub pages.
  + I had some difficulties getting the domain, Cloudflare, and GitHub working together but I was able to get the website up and running reliably quickly.
* Help people I am supporting.
  + This week, I assisted Brady with getting data for his skateboarding research.
* Finish Journal #1
  + This goal will be absolutely met on Friday.
* Buy the Display
  + …
* Prepare the model to be changed for possible display dimension mishaps.
  + I have set up parameters to scale the models sketches with minimal effort. I am having issues with “over constrained” errors, but I am finding ways around this “error”.