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 advice to the projects I am support advising.
* Week 4
  + 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 display for the project, considering specifications, pricing, and delivery timelines, ensuring that the chosen display meets project requirements and is within budget constraints ($400).
  + Prepare the 3D model for potential changes in display dimensions by creating adaptable design elements, using fusion 360 parameters and math to keep an agile project.

**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>

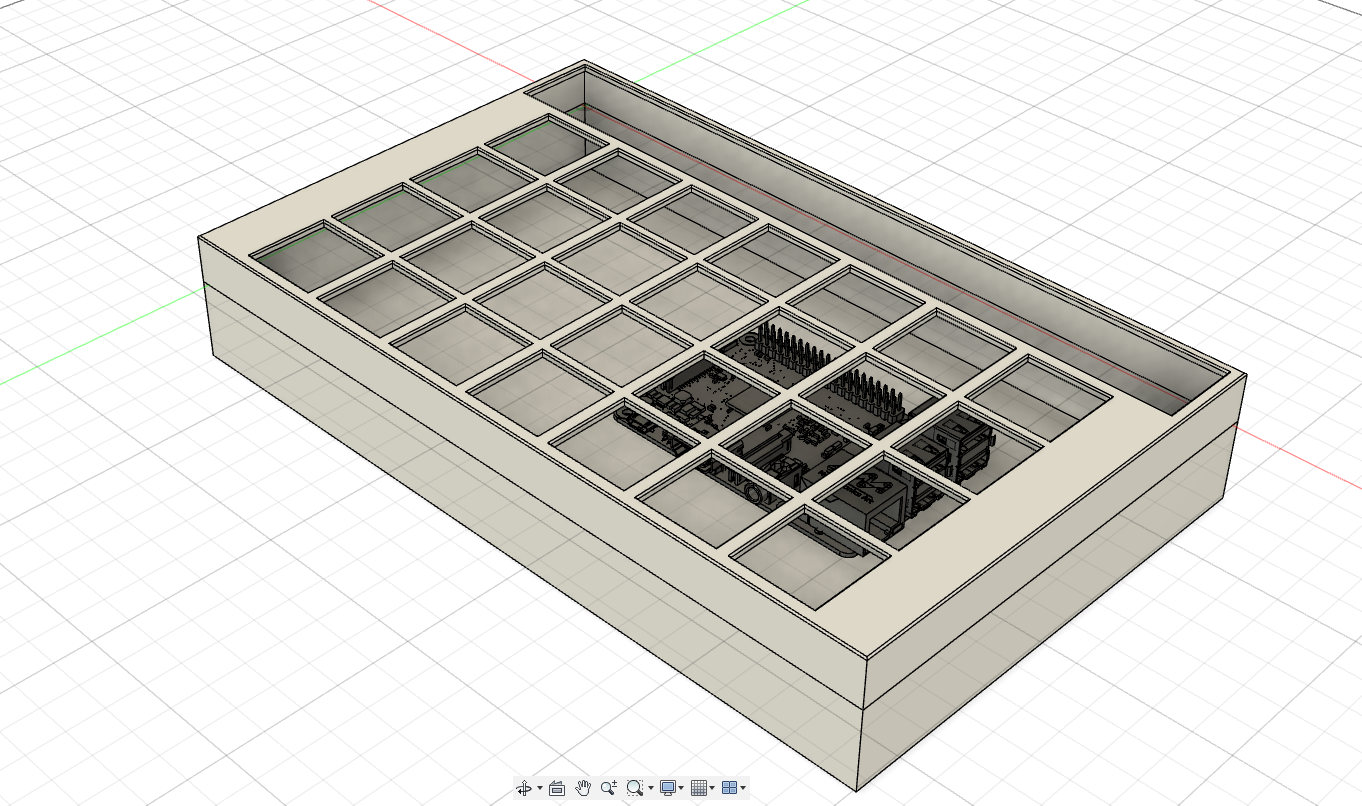
I learned that I probably would need to consider a programmable micro controller or sacrifice an existing keyboard for the electronics handling the button circuits.

<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:**

* 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.
  + I got this goal done a week late, but I got it done in a way I am proud of. The web site has all the information, and tid-bits people would want.
* Finalize the google calendar project timeline and get it embedded on the website to make my life easier when it comes to timeline adjustments.
  + I have the google calendar made and it’s embedded on my website. It doesn’t look too great because of googles’ dated design choices for this embed.
* 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.
  + I met this goal by giving advice to Grant (CalcVox), Brady (AntiStrange Board Co), and Jayal (VAJRADI VISION).
* 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.
  + I have started the cad design and I think it’s going well. As covered in the accomplishments section, I got a drawing sketched up and a model extruded.
* 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.
  + I sacrificed a day with Brady to assist him in collecting data for his boarding company, I was able to do this as I was ahead of schedule.
* Complete the remaining sections of the blog with the aim of publishing the finalized blog within the next week.
  + I got the blog section created and now I just need to populate it with content. I got weeks 3 and 2 done but I’m waiting on week 1 because I had other things to do to stay on schedule.
* Generate a precise front plate design for the tablet including accurate dimensions and specifications with parameters to keep an agile project.
  + Did this quite easily, as covered in the accomplishments section, I got the front plate designed and ready for rapid prototyping.
* 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.
  + I got this up and running, you can check it out here to see it. It’s hosting all of my weekly goals and info. <https://github.com/Louis-Ladd/waveSpeakWebsite>

I also have it hosted on a custom domain, “wavespeak.org

* Provide meaningful advice to the projects I am support advising.
  + I provided feedback to the CalcVox schematic for their button matrix. I gave them mostly good feedback, the only recommendation I gave was to use labels for connecting the respective column and rows of buttons instead of directly wiring them in the schematic.
* 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.
  + I have finished this on Saturday night. 1 day late sadly. I did make sure to make it in-depth on my shallow progress though so there’s that.
* Purchase the display for the project, considering specifications, pricing, and delivery timelines, ensuring that the chosen display meets project requirements and is within budget constraints ($400).
  + I paid 89$ for the display which is bad at all. The PCBs will cost around 80 for 5 which is way under the $400 target.
* Prepare the 3D model for potential changes in display dimensions by creating adaptable design elements, using fusion 360 parameters and math to keep an agile project.
  + I set up screw posts and got the entire case fully defined with variables so I can change anything easily and painlessly.