

CDEFO Week 11 (#10)

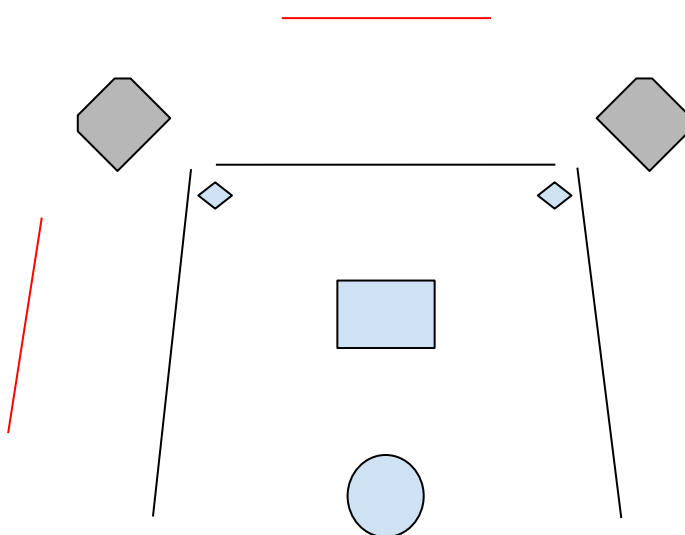
Timeline:

Week 8 - End:

- Build user experiences, curate content, and test stability. (until the end)
 - Write any remaining C++ functions
 - Make the experiences pretty and bug free
- Building the user experiences is probably going to take the longest, as it is going to have some QA involved to make sure they are actually enjoyable. Lots of talking to users.
- Write documentation for the C++ library (until the end)
- Prepare for demonstrations

Construction has halted so far on the 2 user experiences I have, largely because I'm waiting on some more money to be able to go out and buy the rest of the dowels needed to make the curtain frames. I need 8 more 3'x3/4" dowels to finish the frames. Meanwhile, I've drilled all of the clasps for the LED strips into the 3D printed joints, and all I need to do is wire together the 3 LED strips for the Mood lighting, and the 2 strips for the music visualizer. In terms of the music visualizer, progress has been made on implementing the YIN algorithm in Python, but its not a priority by any means. The main priority for coding right now is in documenting the code. I aim on having two main sections for the documentation, the first section which will describe the line standards to be used when writing to the tags (i.e. To make the LED mood lighting have a blue, red and green pulse consecutively, you write ":L;CBRG" to the tag in it's own NDEF record). The other part will document all of the other APIs I'm using in the CDEFO library, and how to leverage them to write your own CDEFO driver sketch (the driver sketch being what will actually read the NFC tag and attempt to execute the commands stored on it) as well as getting the Python script to play nice with everything. I plan on doing this using the manpages the Github provides, and by the way, I made my Github repo public so that you and potential employers can see it [here](#). It's also occured to me the I haven't quite explained the actually layout of the

"room" I'm making or how the frames will be placed. I will remedy this below...



Here, the red lines represent the LED strip frames, the black lines represent the curtain frames, the gray blocks represent the speakers, the diamonds represent the music visualizer, the blue square represents where the screen sits, and the ellipse represents where the viewer will sit. The LED strips will be up to 4 feet behind the curtain frames for maximum diffusion without removing too much light, and the curtains will

be angled out so that the space doesn't feel as claustrophobic. The inner area is going to be

around 2x2.5 yards, which shouldn't be too bad, but just incase I want as few things in the space as possible. As such, the speakers will be behind the curtains, and the music visualizers will be at the intersections between the curtain frames. The screen is still up in the air, truthfully, after thinking about it, I decided I don't want it to be a laptop, because that actually goes against what I'm trying to emulate, which is a PvC environment, or an environment where the computer has been completely abstracted out, I suppose I could just use an LCD screen, or maybe even a projector to take advantage of the diffusion curtain I'm using.

Otherwise, because of the halt in construction and studying for a bunch of exams I had last week, I didn't spend that much time on the project itself, probably around 2 hours building, or planning and locating materials, and 3 hours coding working on the YIN algorithm and documentation. Construction WILL be done by next week, as it is a pivotal component of my final presentation.