Submission link: https://artcenter.instructure.com/courses/11977/assignments/50738

10/15: Most of my process/behind-the-scenes work is captured in a Figma Board. I'm porting over progress artifacts towards a more-organized MS Word format here:

10/17: Classmate notified me after-class that there was a Canvas HW module to upload a link to this, seen in the "Submission Link" above. I didn't know we had to upload a github link prior, apologies for that!

10/22: Final documentation! I also presented the final UI of the dashboard at Saturday class. I provide an example of that dashboard seen in Figure 1.

Project Context: I'm prototyping an enhanced, more-intuitive NASA Worldview dashboard focusing on a subset of users: data journalists and storytellers that utilize Geospatial Information Systems (GIS) such as Worldview.

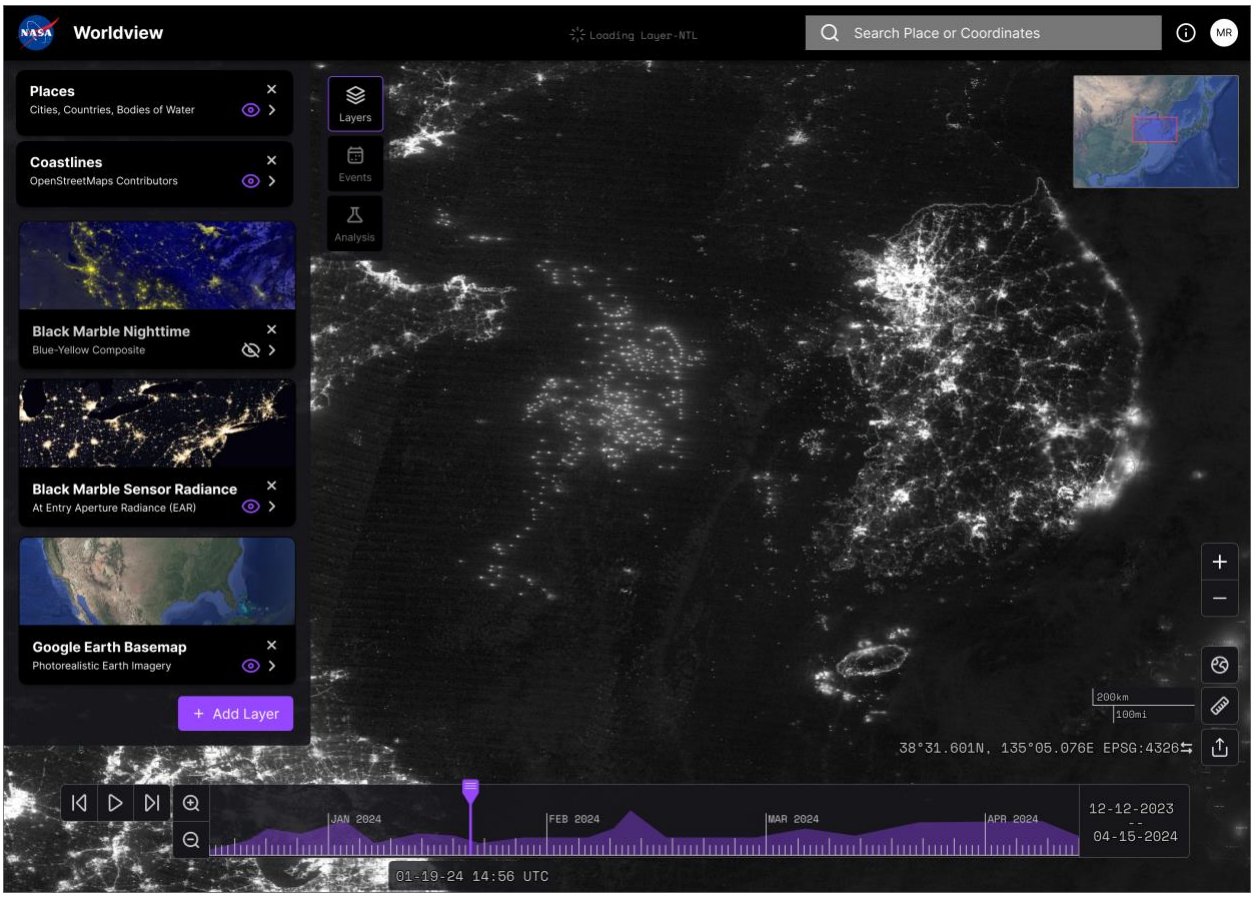


Figure 1: Sample of my prototype. The dashboard provides much more analysis power to the user!

Ideation! : as I continue prototyping the dashboard, it's now time to think of product interfaces. I love ideation and I facilitate that by performing mind mapping sessions. I

particularly set my mind mapping session to be “rapid fire” in pace. By making it short, it really helps me ensure I capture my rawest ideas with no overthinking nor judgment!

My trusty Remarkable Paper Pro tablet is my go-to tool for mind mapping – I like how it’s the tactile writing experience but incredibly rapid to transfer my thoughts to digital storage.

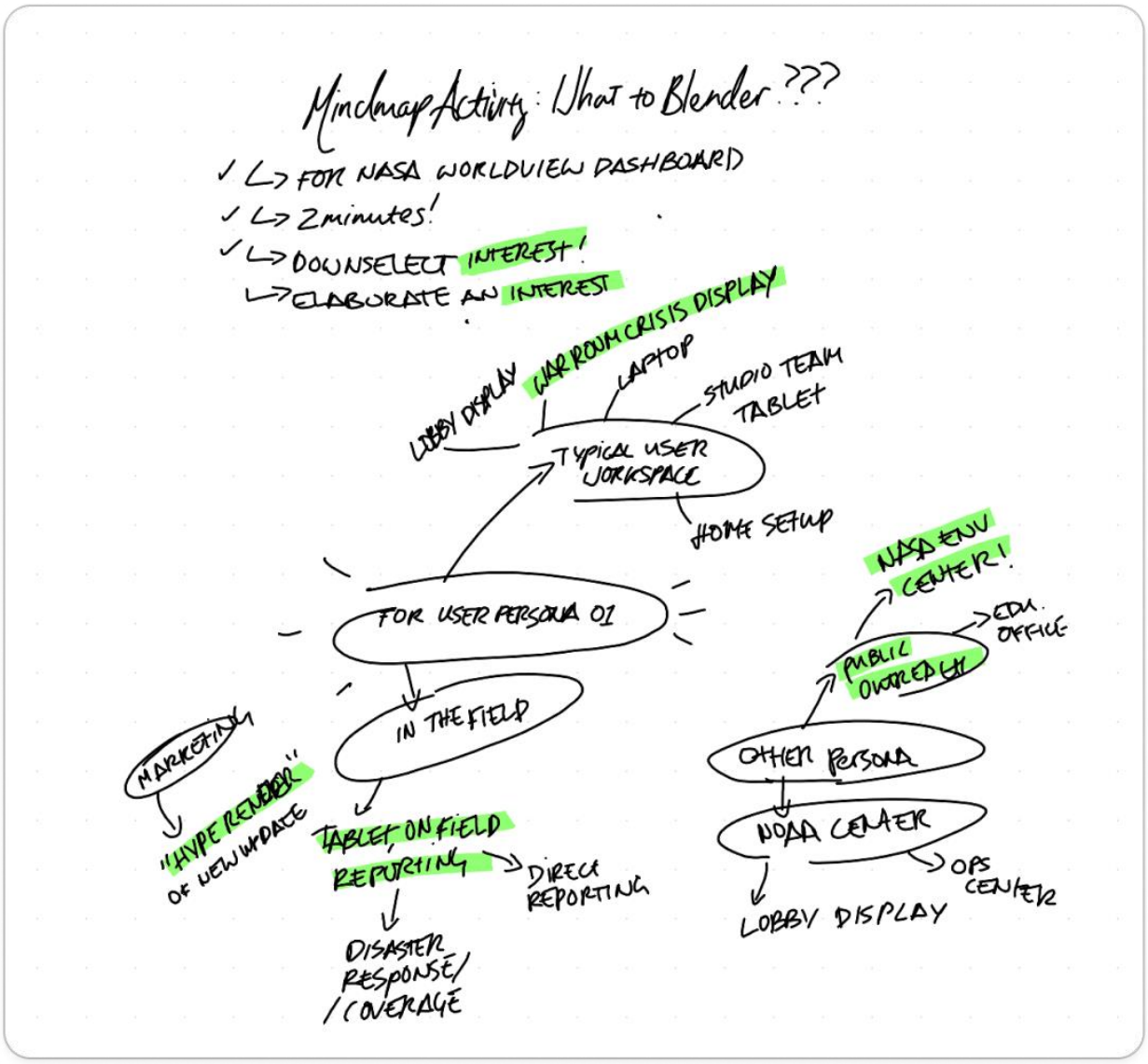


Figure 2: Ideation of What to Blender for my enhanced NASA Worldview Dashboard!

Pick and Sprint: From the first mind map, I use my tablet to highlight green key ideas that I want to expand more into as a possible lead. I performed a “sprint” to generate how that idea can become the Blender project:

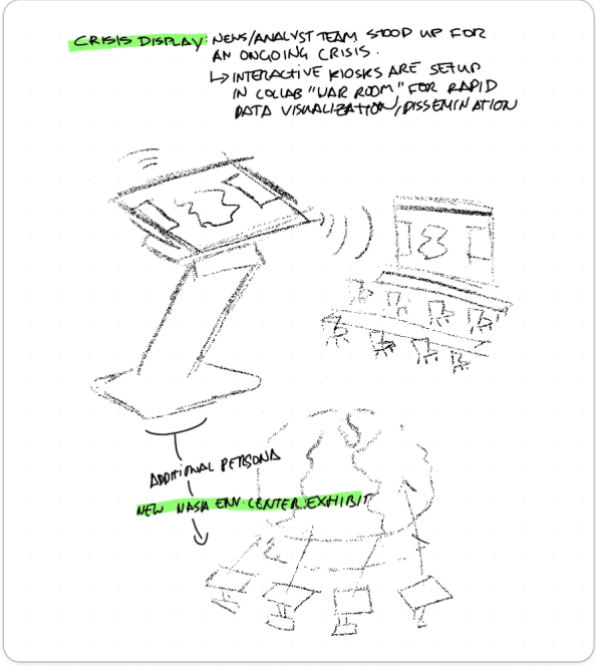


Figure 3: Example idea sprint - maybe use Blender to generate a kiosk that can be used in large conference rooms or at NASA's recently built Environmental Data Center interactive exhibits!

Liking "Hype Advertisement": one of the sprint activities included the idea of creating a marketing ad for the new dashboard updates I'm implementing. My prototype proposes the dashboard to now analysis capabilities now giving users the ability to perform advanced methods on satellite data – this can be a huge ad campaign to draw users!

I collected a couple sample advertisements that came across my social media feeds (coincidence?!) – where the product was a digital interface, but utilize device renders and show features!

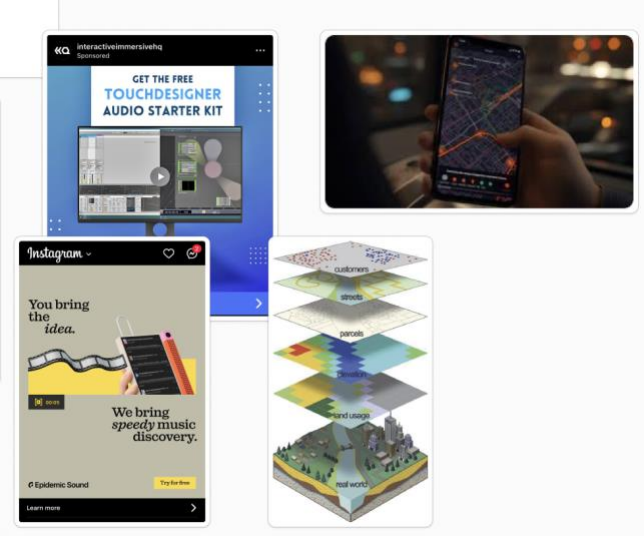
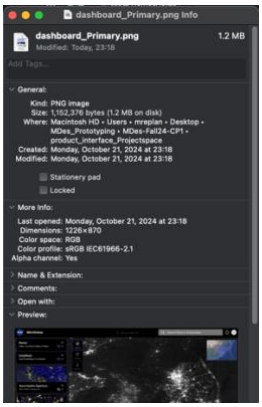


Figure 4: Example ads and visuals!

Let's Roll with Futuristic Kiosk! I decided to go with a Kiosk design because I wanted to think about a hardware that would host the dashboard. The class session inspired me to think of alternative hardware where this dashboard could possibly live in and I really liked how this kiosk would be appropriate at science museums. I gathered reference images along with my sketch to help guide the way. Getting multiple angles of the kiosk really helped me understand the fundamental Blender meshes I will add! I also identified on Blender from a tutorial on how to generate a gradient backdrop – it is very akin to how a photo studio's backdrop looks like.

Figure 5: Gathered reference photos of the kiosk. Note the multiple angles that manufacturers conveniently provide!

Determining the screen size:



The dashboard PNG is 1226x870. Therefore, the Width is a factor of 1.41x whatever units height is assigned. This will determine the "screen object" of my kiosk.

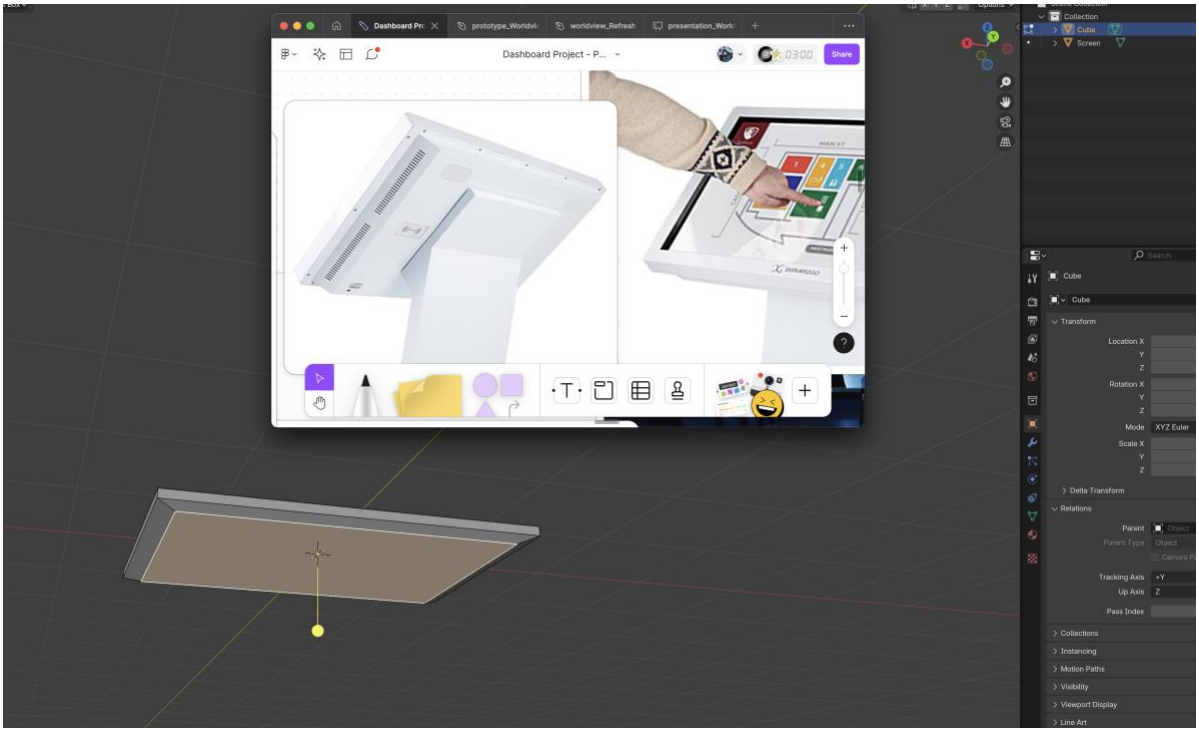


Figure 6: Creating the screen. I made sure to make sure I don't change the screen aspect ratio. I also used bezel tool to create a realistic "backing" of the screen which stores the electronics.

After creating the “screen” I formed the angular stand – I decided to work “flat” (not raising z-axis or rotating things around) because I learned from previous model, it can get really disorienting when translating objects that have modified body axis.

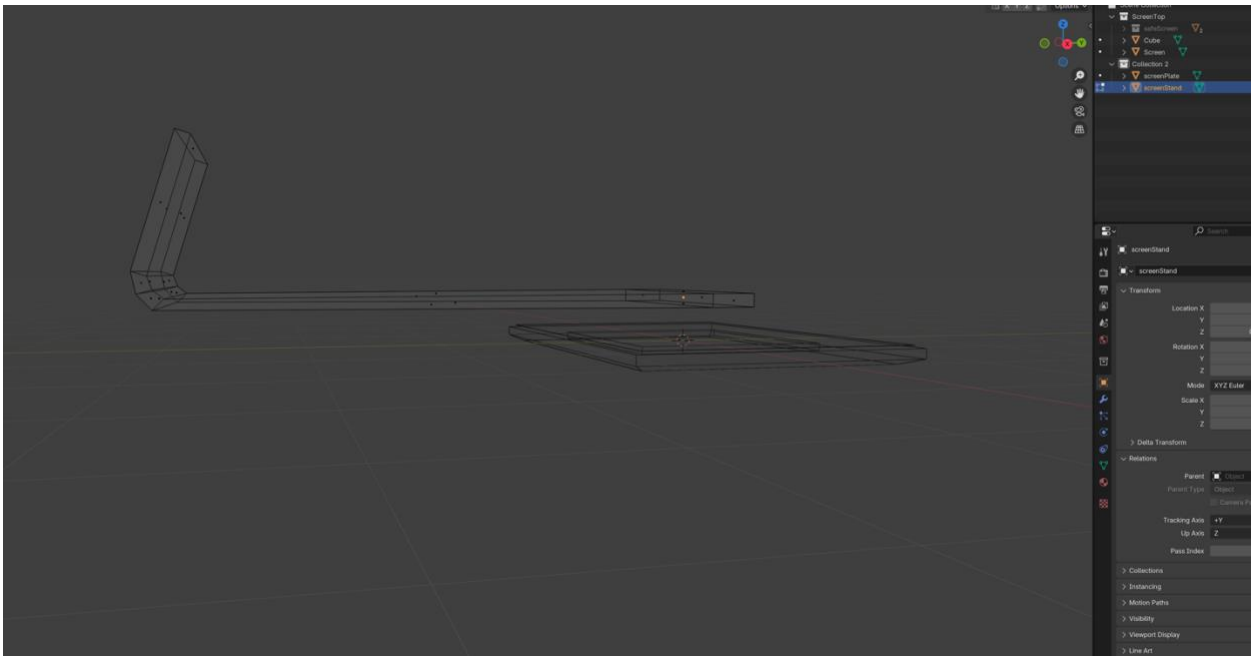


Figure 7: Creating the cool angular stand that holds the screen. I guestimated the angle of the "leg" by placing a protractor on the monitor in front of the product side-profile photo.

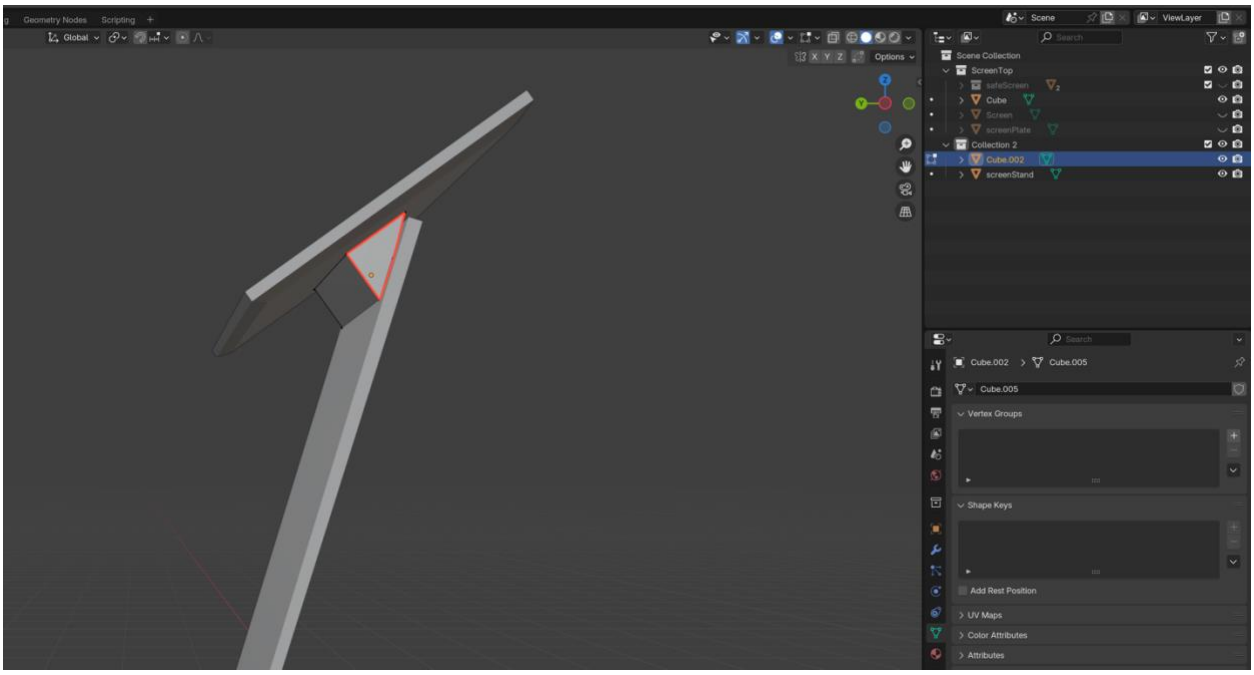


Figure 8: Connecting the "leg" to the screen resulted in an akward void which made it look physically impossible for an object to hold a screen! So, just like the product photo, there's a triangular "wedge" that interfaces with the screen and "leg".

With the default solid color I didn't really feel the sterile look of the kiosk – it felt more at home at a hospital check in counter. Instead, I looked at more exciting monitor designs and wanted to apply wooden material akin to Samsung "The Frame" TV models. I extended this further with reference photo from my favorite brand, Muji, which uses natural birch combined with off-white metal materials such as the cabinets seen in the photo above.

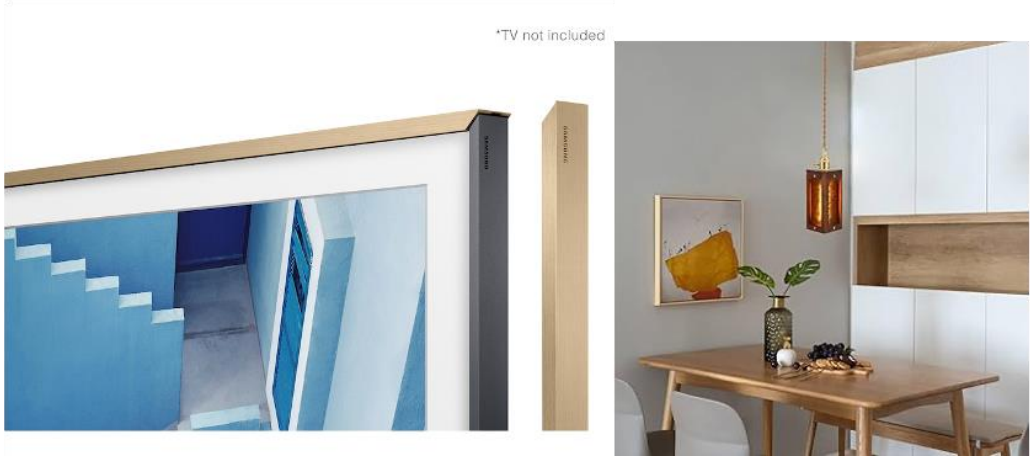


Figure 9: I'm a fan of wood, especially light birch, when in proximity to technology!

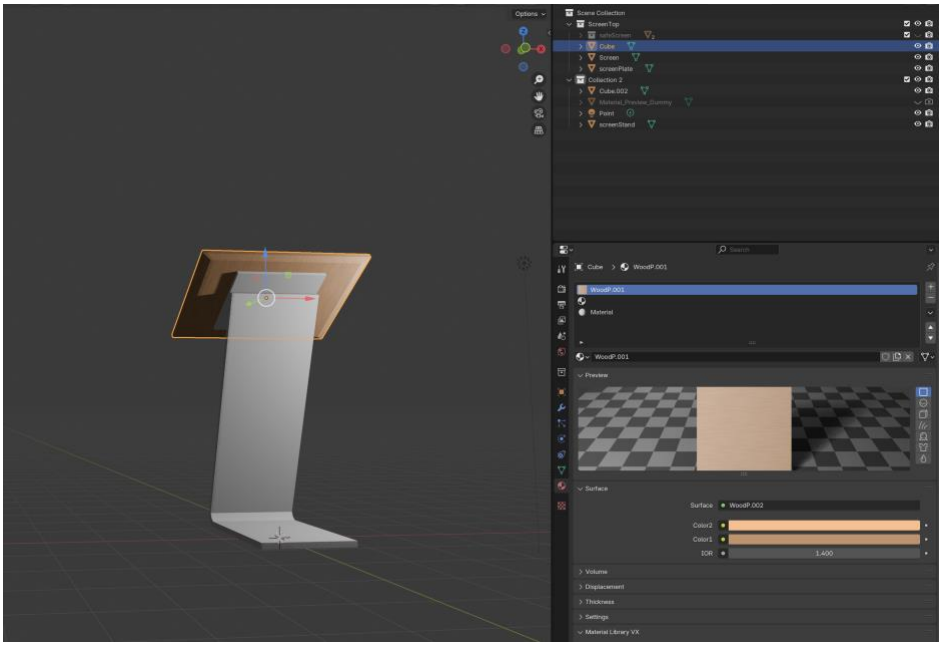


Figure 10: Applying material to the monitor "frame" using wood material.

I utilized the free Material VX add-on which contained wood material! However, the default material was this very “vintage” dark and darker-brown color. Combined with the grain texture, it wasn’t what I was looking for – definitely did not match the “bright”/clean look of Muji nor Samsung Frame. This was a simple fix by simply selecting lighter tones that match natural birch colors!

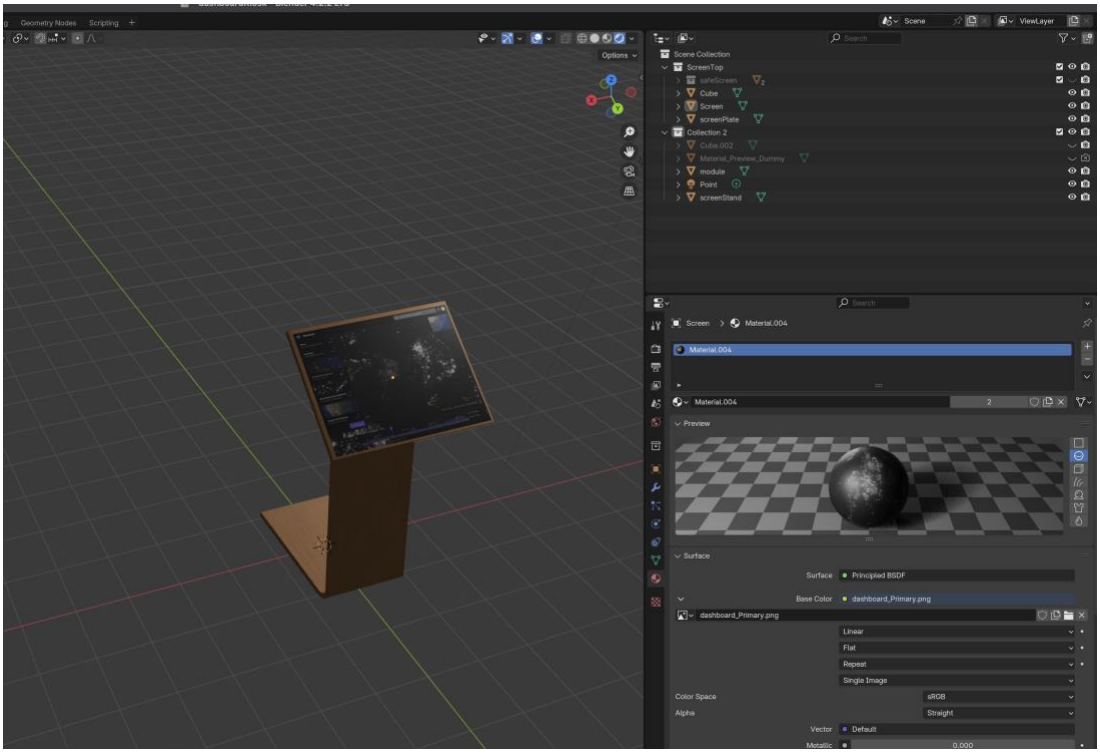


Figure 11P: I applied wood material to the "leg" as well. UV mapping of my dashboard .PNG was really easy! The surface object was the correct aspect ratio and all I had to do was invert the initial UV map!

Setting up beauty shots: I created a “gradient backdrop” by creating 2 large surfaces orthogonal and then beveled the edge join combined with shade smoothing. I also set up some lights in a 3-point light arrangement to ensure I don’t create any harsh shadows.

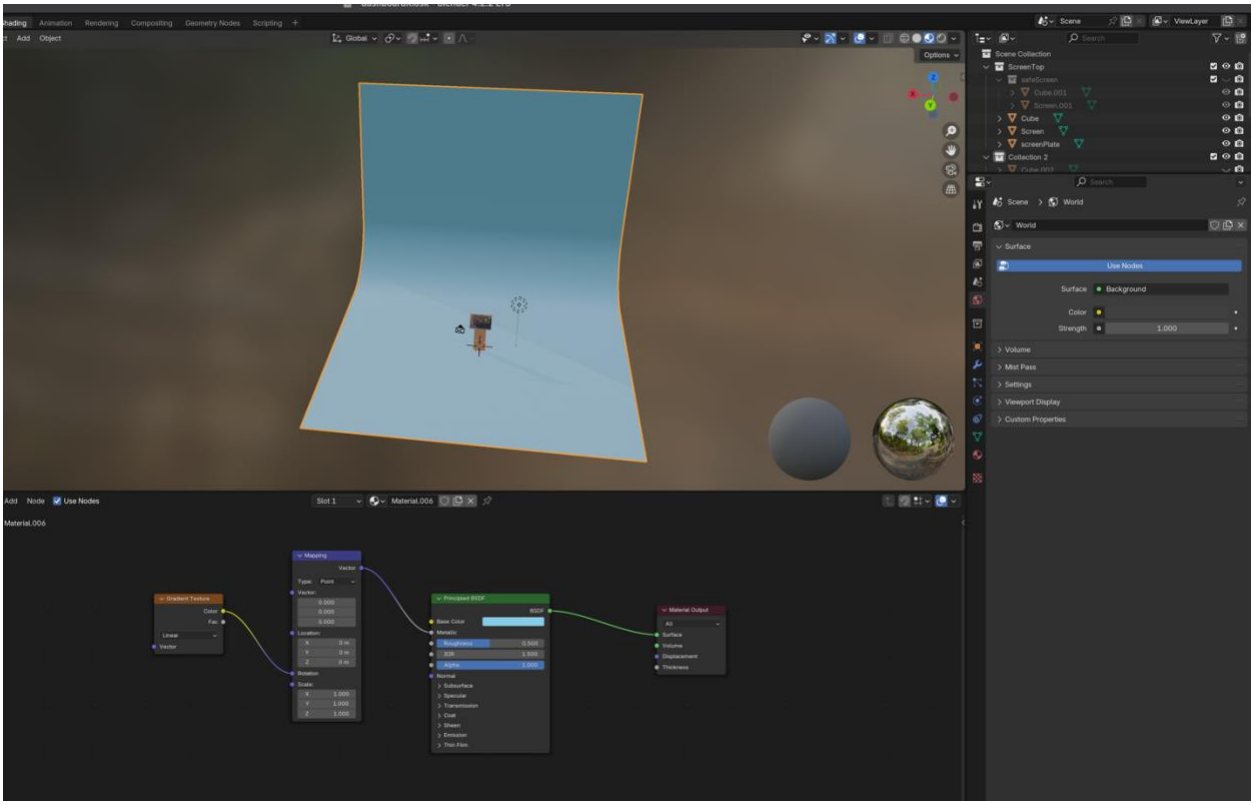


Figure 12: I learned and use the node approach to setup a gradient!! I think I like using nodes because I can see all the "knobs" I can turn.

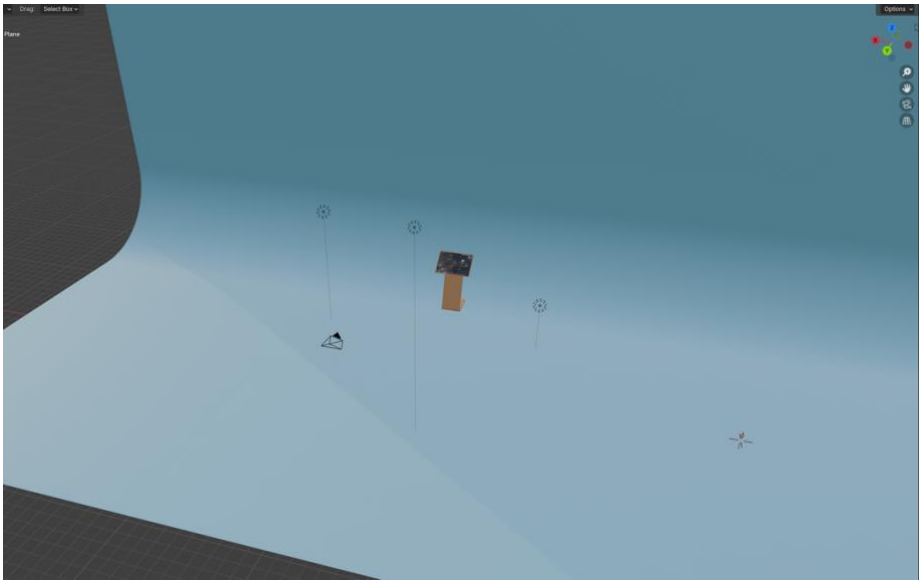


Figure 13: Looking good! I had to increase the gradient backdrop size to be larger so the camera doesn't pick up the default background.

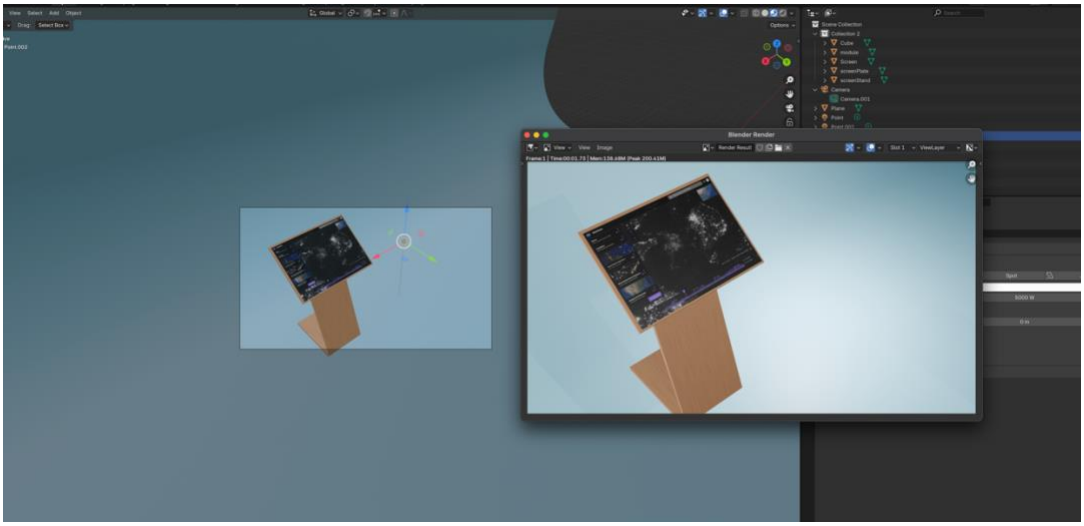


Figure 14: Collect beauty shots! I intentionally added negative space so I can add some fun advertising text for the release of this dashboard!

Figure 15: Boom!

Reflection:

- I like node approach to material/color management! It's really neat to look at it through block diagrams and how input gets manipulated to the final output!
- Collecting reference imagery in the beginning was soooo helpful. The different angles of the same object really assisted me in making sure angles and proportions made sense.
- Work smarter! I like how I tend to try to find free resources first and try to see if I can McGyver it to my solution. Let's keep on doing that before reinventing the wheel!