

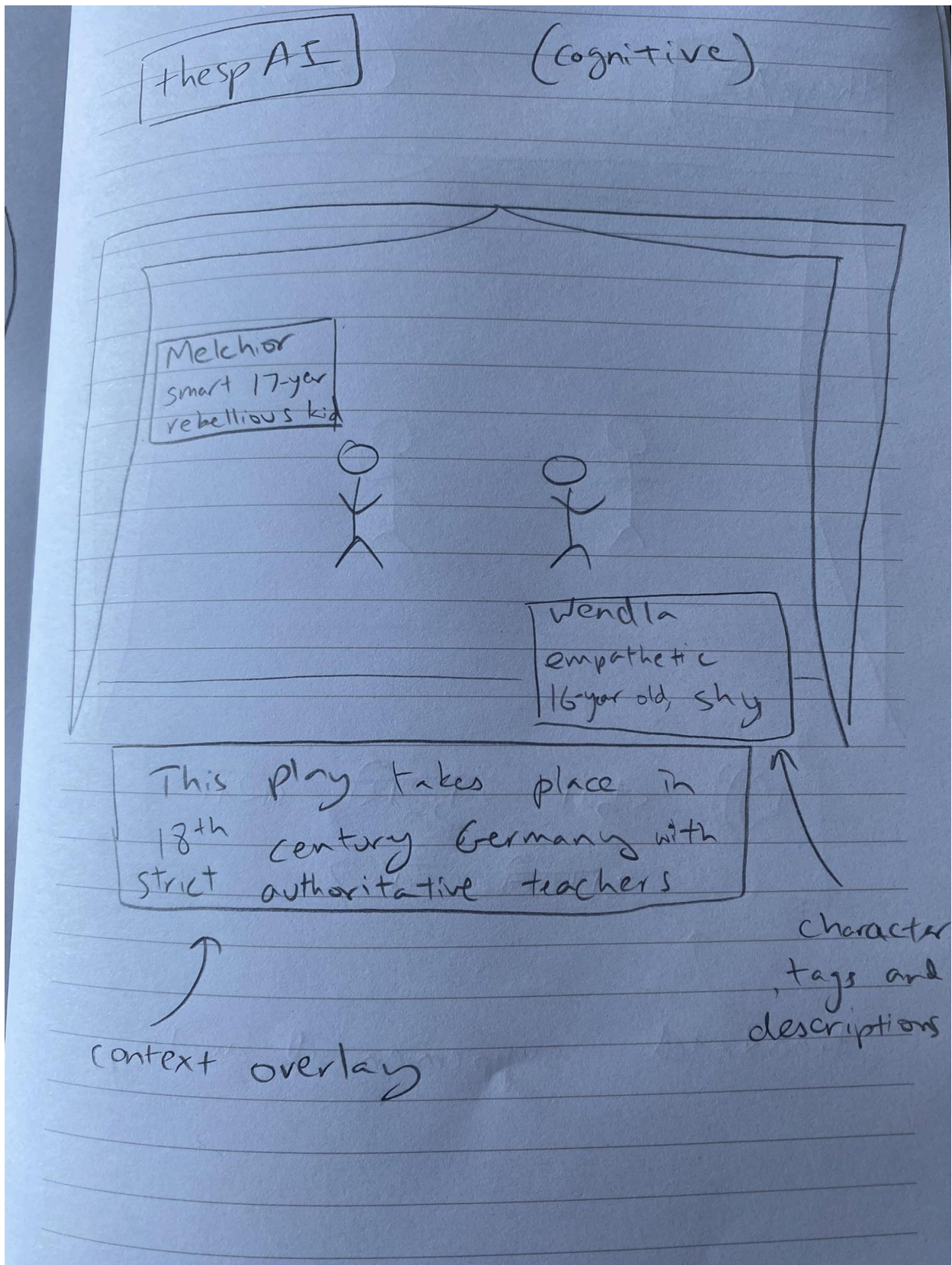
Abhay, Oey, Olivia, and Zainab
Group 1
HCDE 518

Ideate & Sketching

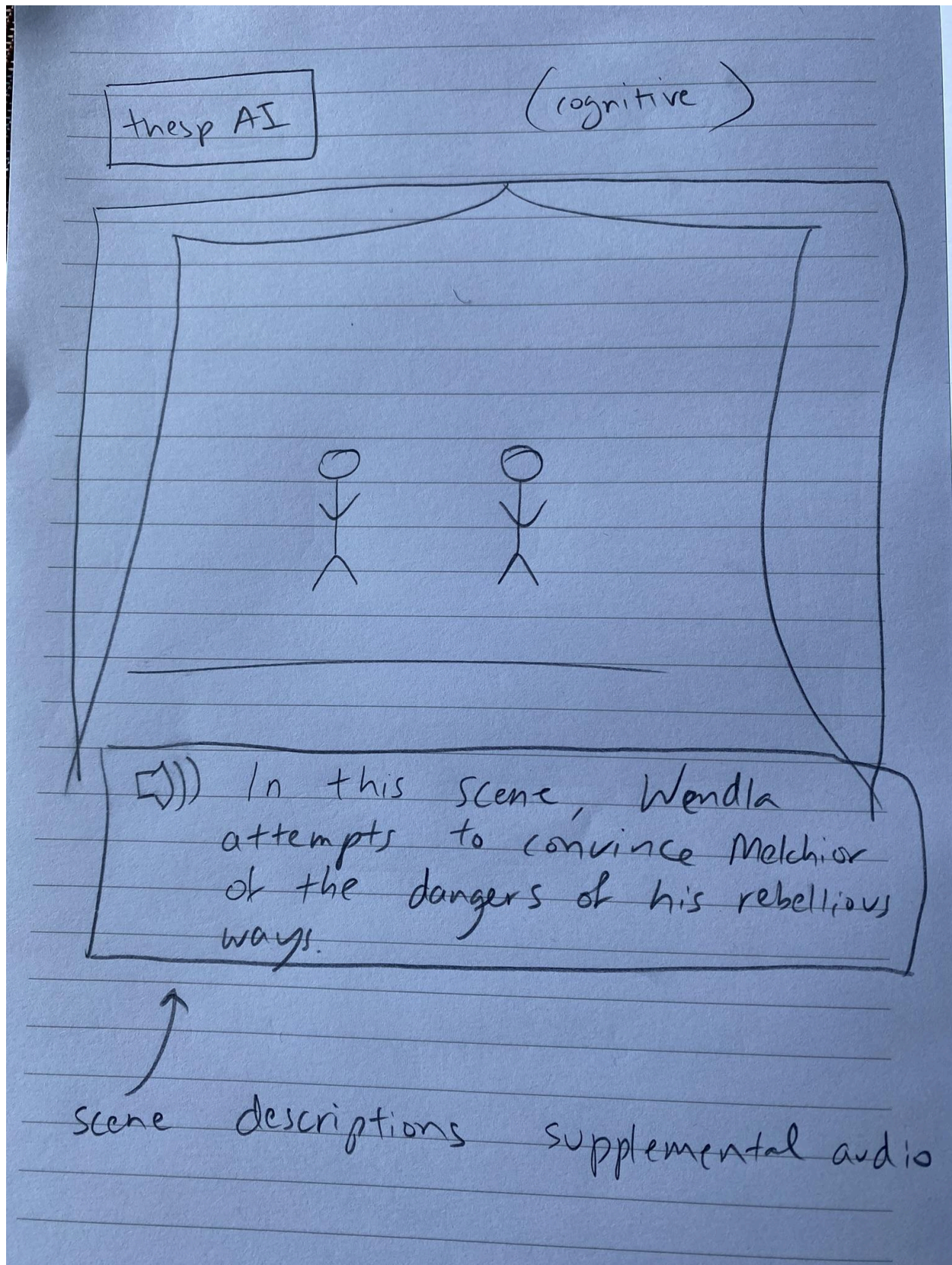
Sketch

Abhay

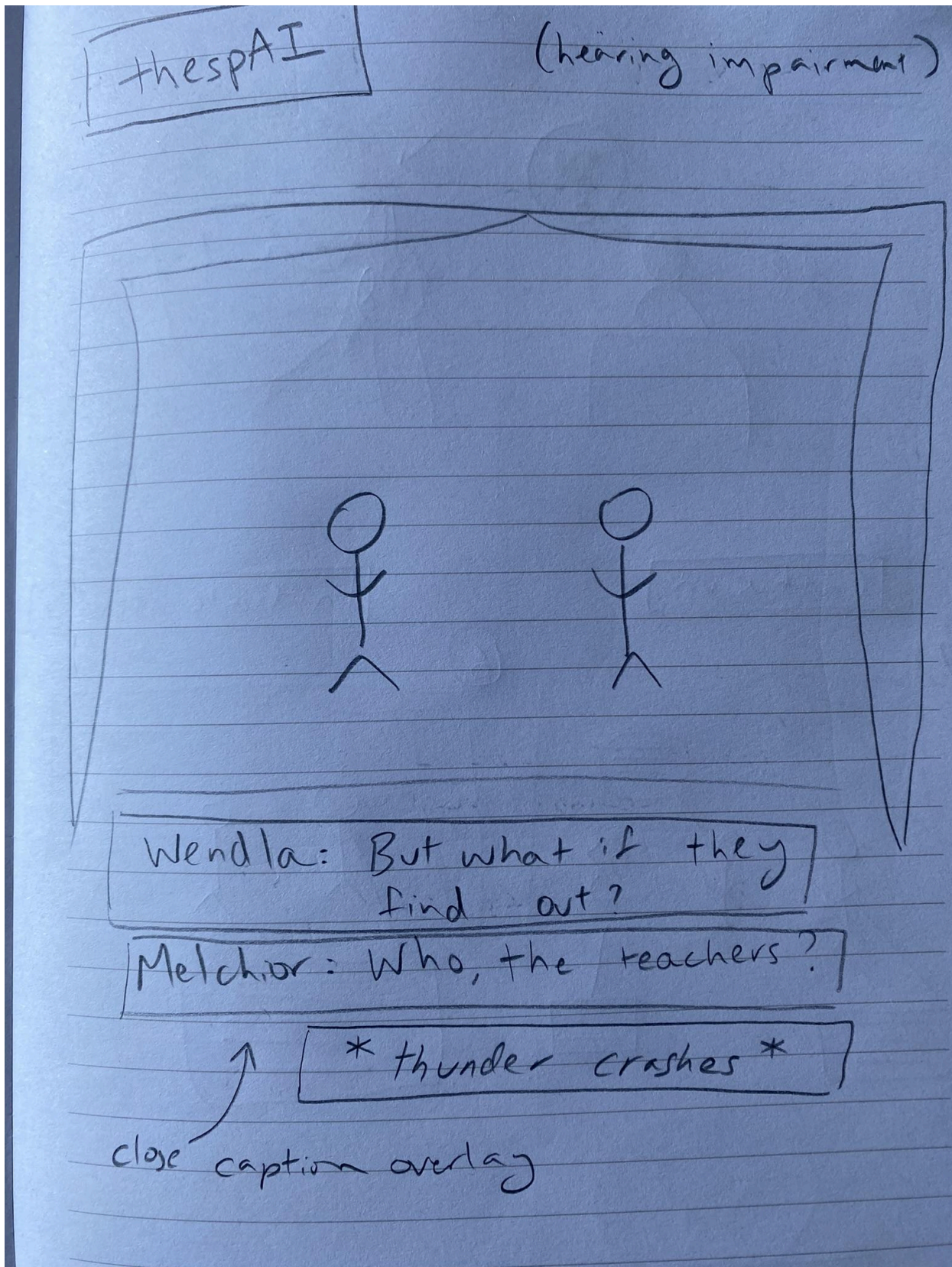
1.



2.



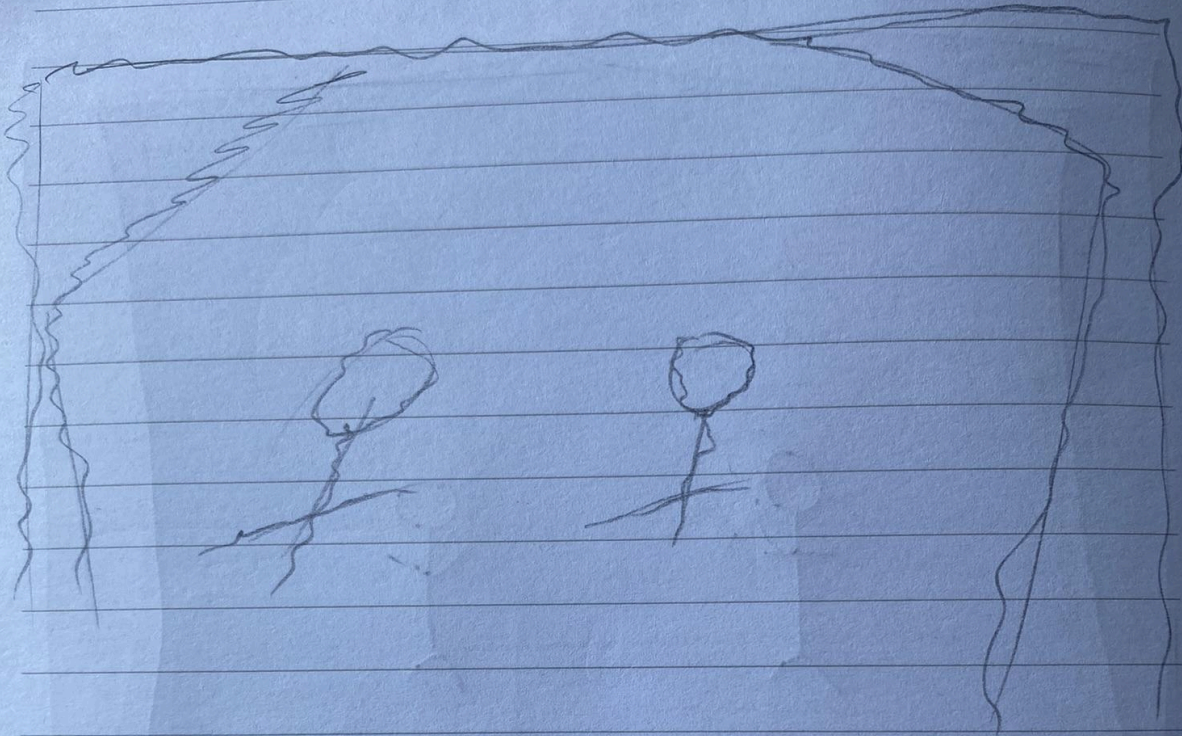
3.



4.

thesp AI

(visual impairment)



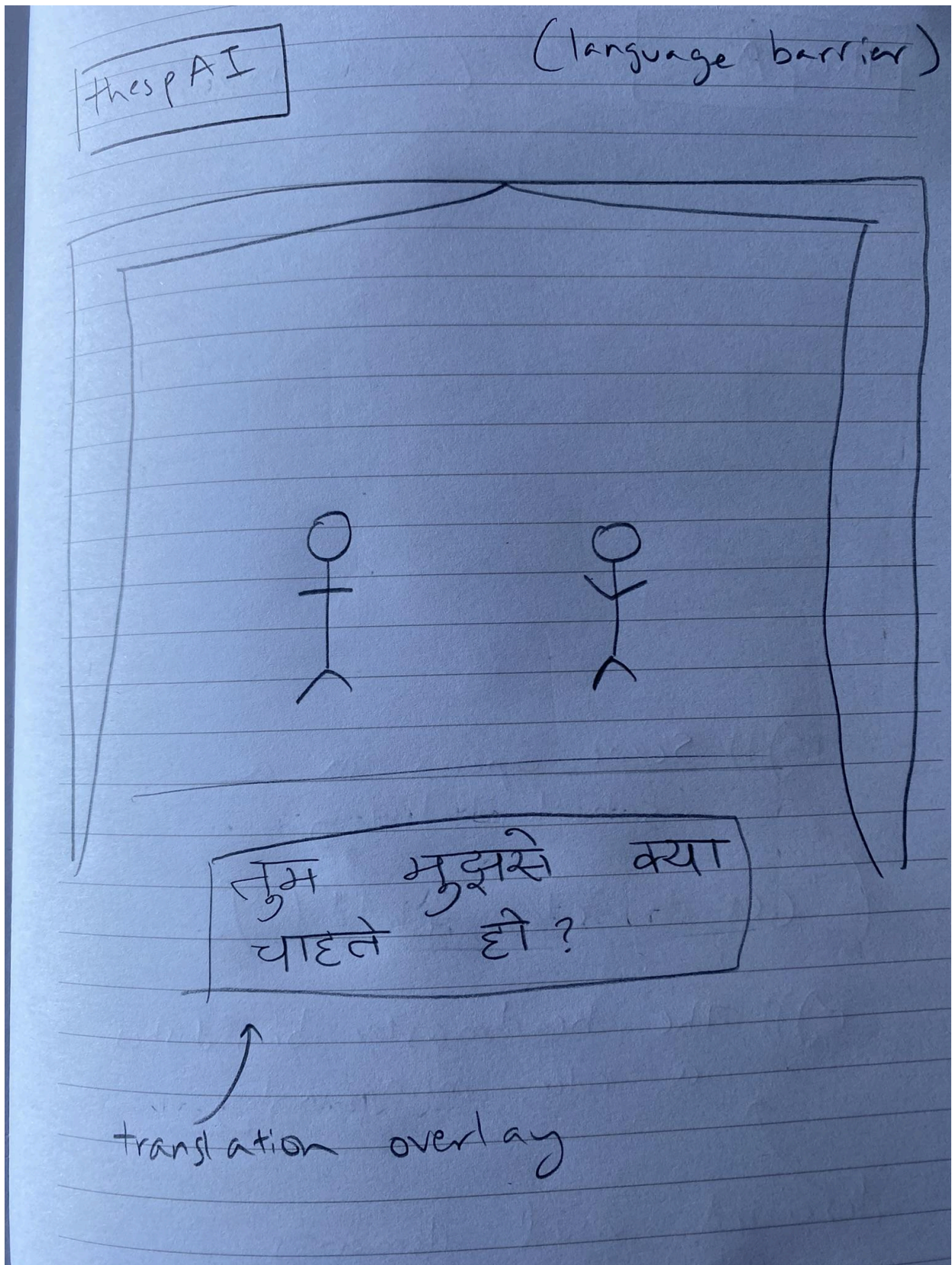
))) Scene opens in a school hallway

("Get to class, child!")

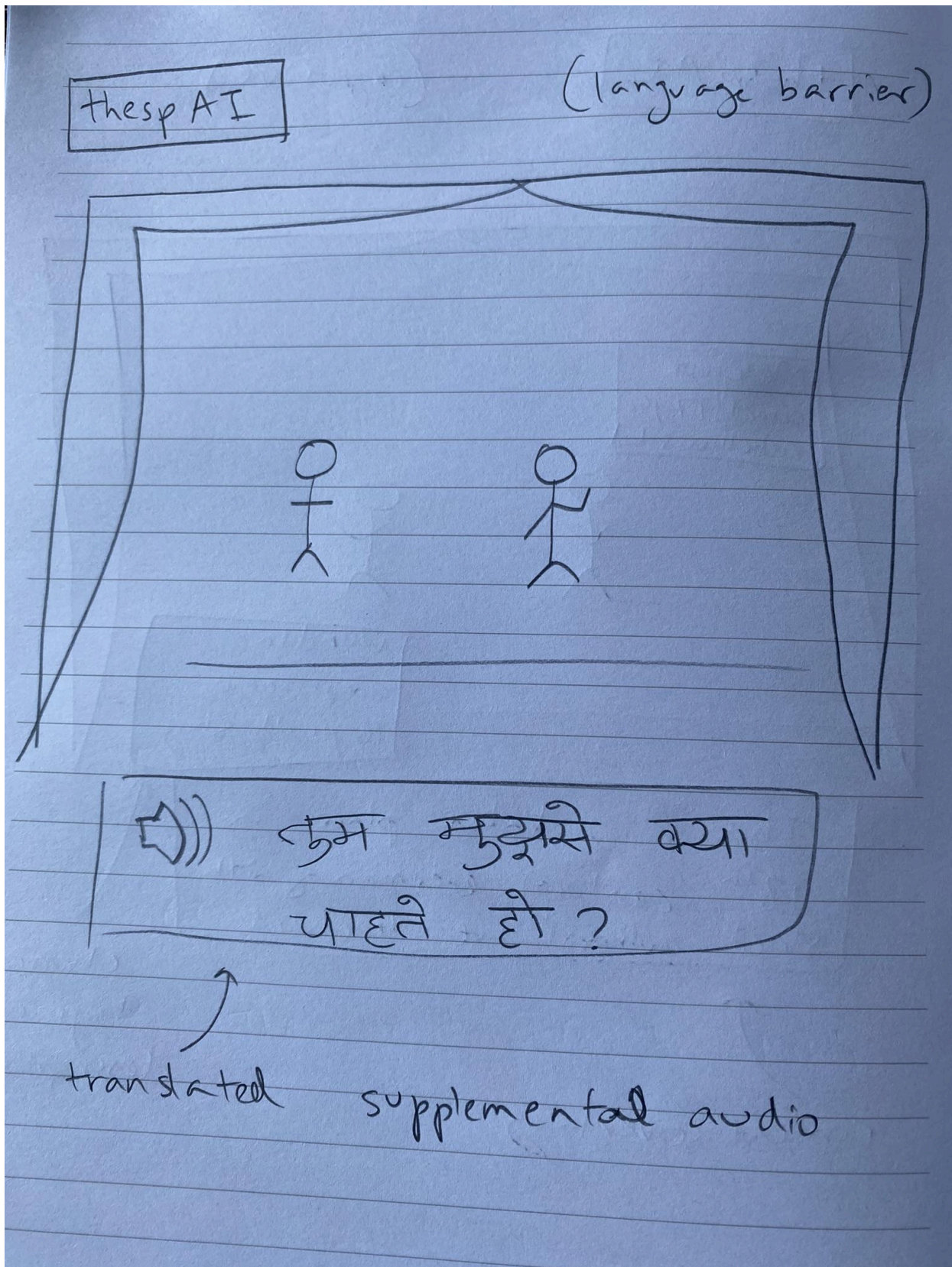
))) The headmaster brandishes a ruler menacingly

described visual elements

5.



6.



Oey

1. Alt Text for Individual Reference

② Alt text for individual reference

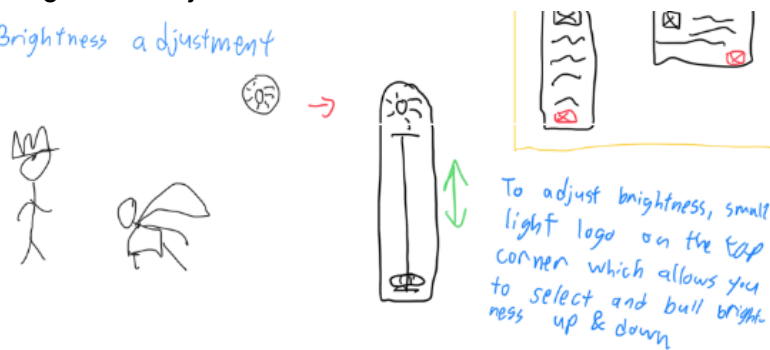


③ Brightness adjustment



2. Brightness Adjustment

③ Brightness adjustment



3. Close Captions for dialogue

④ Close Captions for dialogue



C.C can be displayed at the bottom of user's vision and be transparent as to not to obstruct the show. Also, have the option to change language, size and clarity.

4. Volume Adjustment

⑤ Volume adjustment



A small nob at the bottom right of the user's vision to adjust volume & can go further to adjust tones & pitches

5. VR headset (physical dial button)

⑥

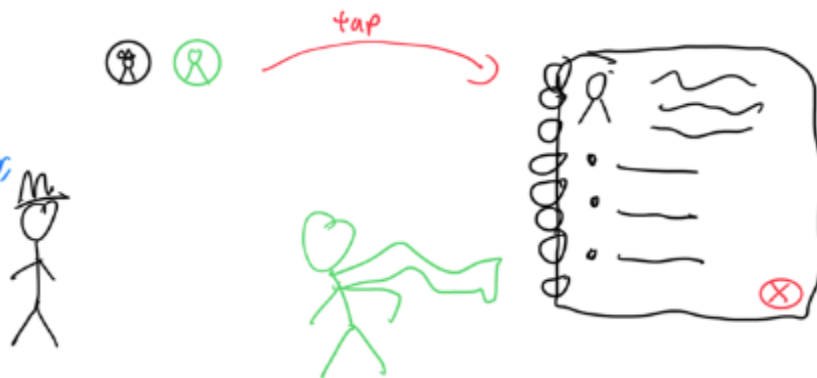


VR headset w/o cord & earpieces to help direct hearing & drowning out extra noise. Physical nobs on each ear piece to adjust brightness or volume.

6. Alt Text for character

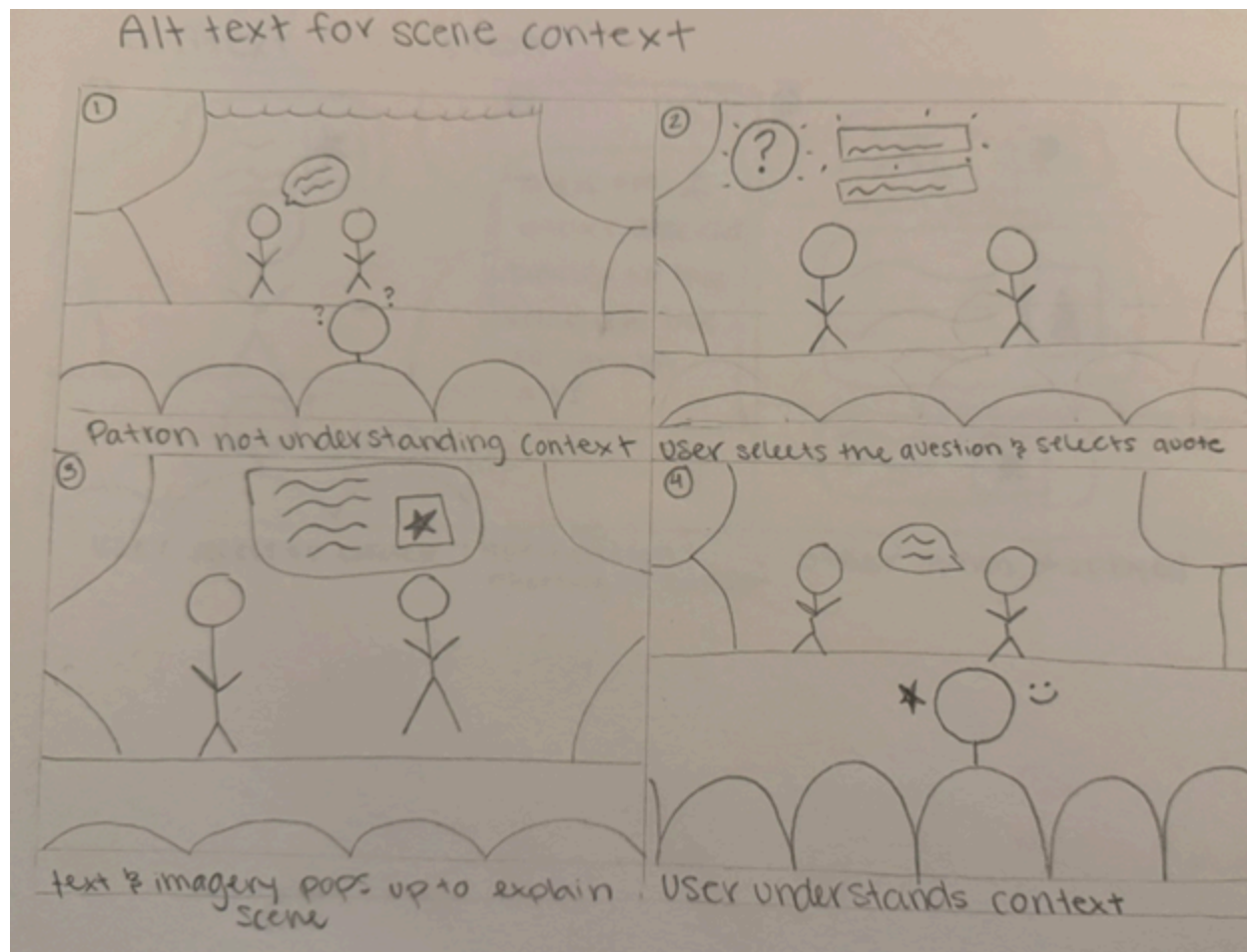
⑦ Alt text for character

For the alt text
for individual character,
there would be icons
in the top middle where
you can tap and
expand a transparent
file on them

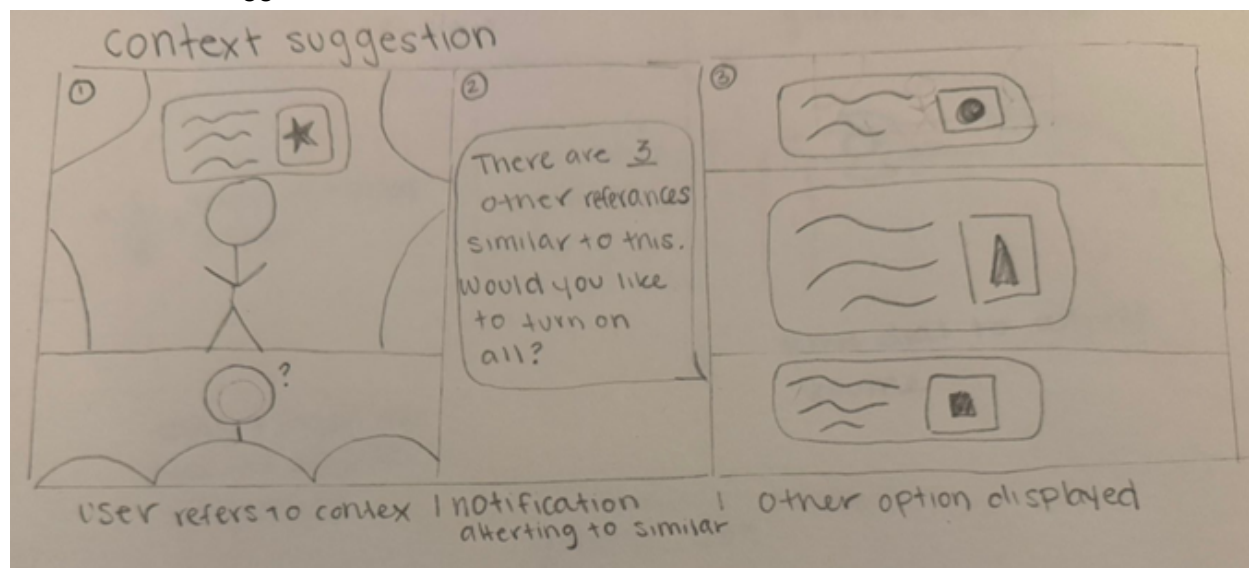


Olivia

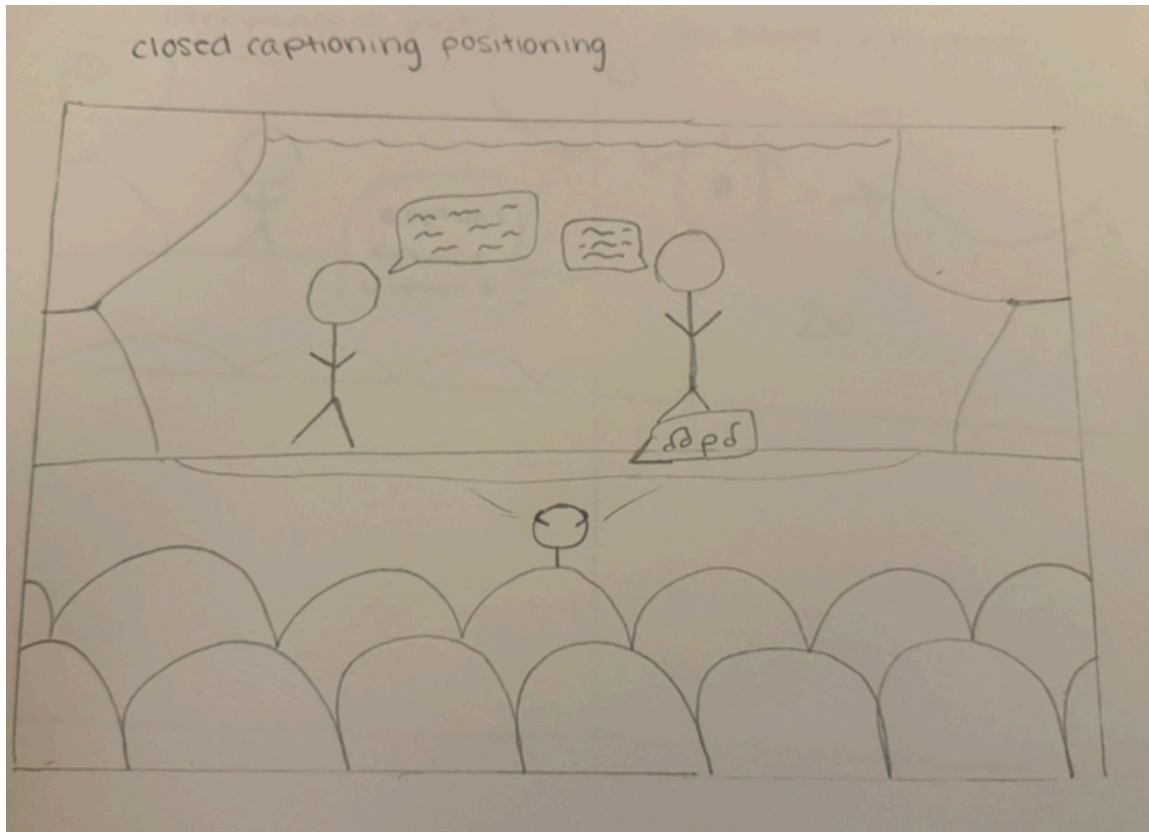
1. Alt Text for scene context



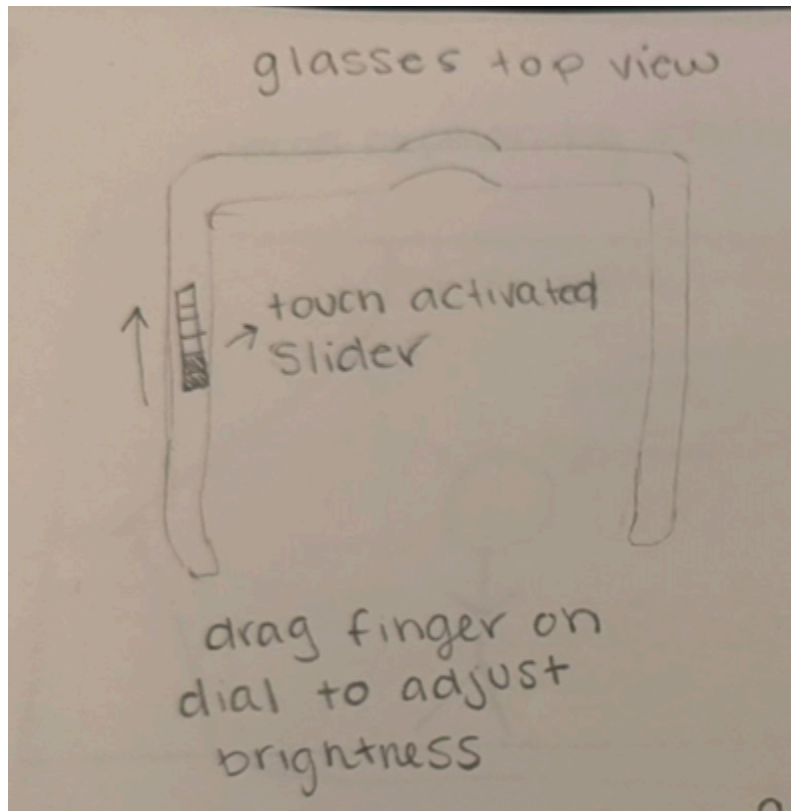
2. Context suggestion



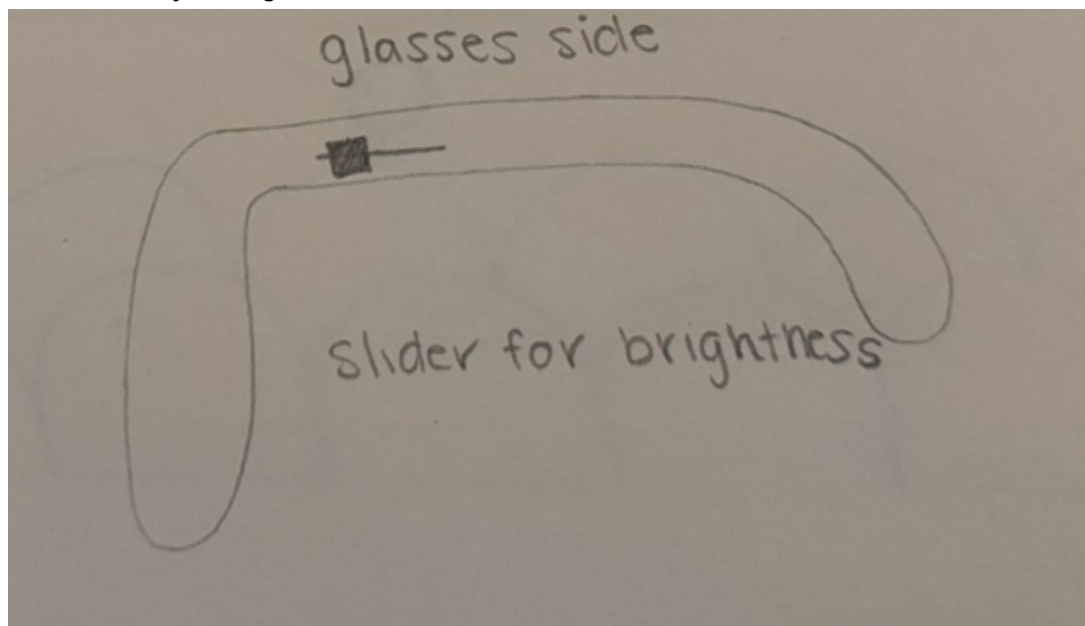
3. Closed Captioning positioning



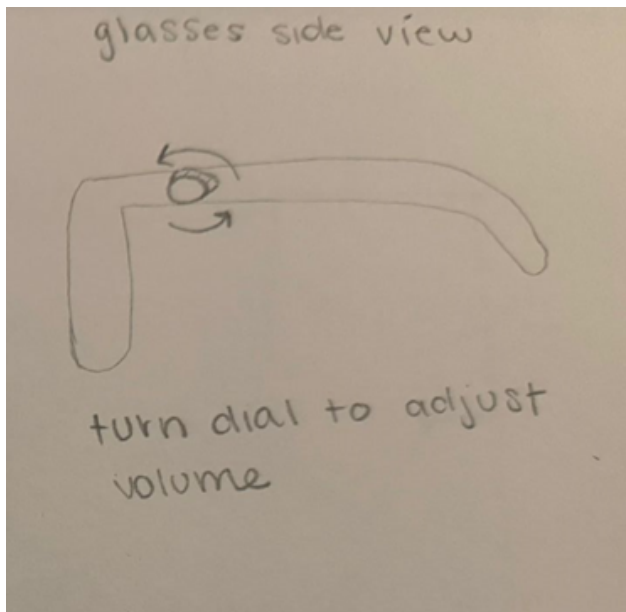
4. Brightness adjustment touch slider



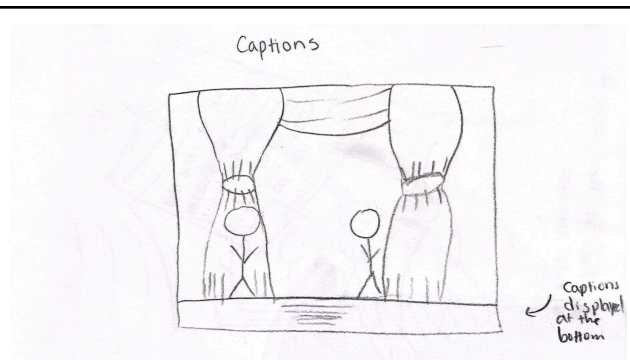
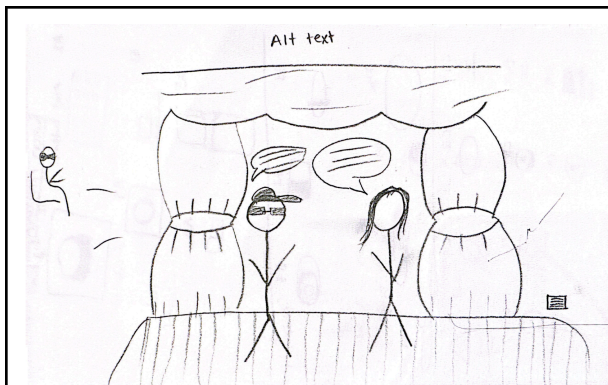
5. Slide to adjust brightness

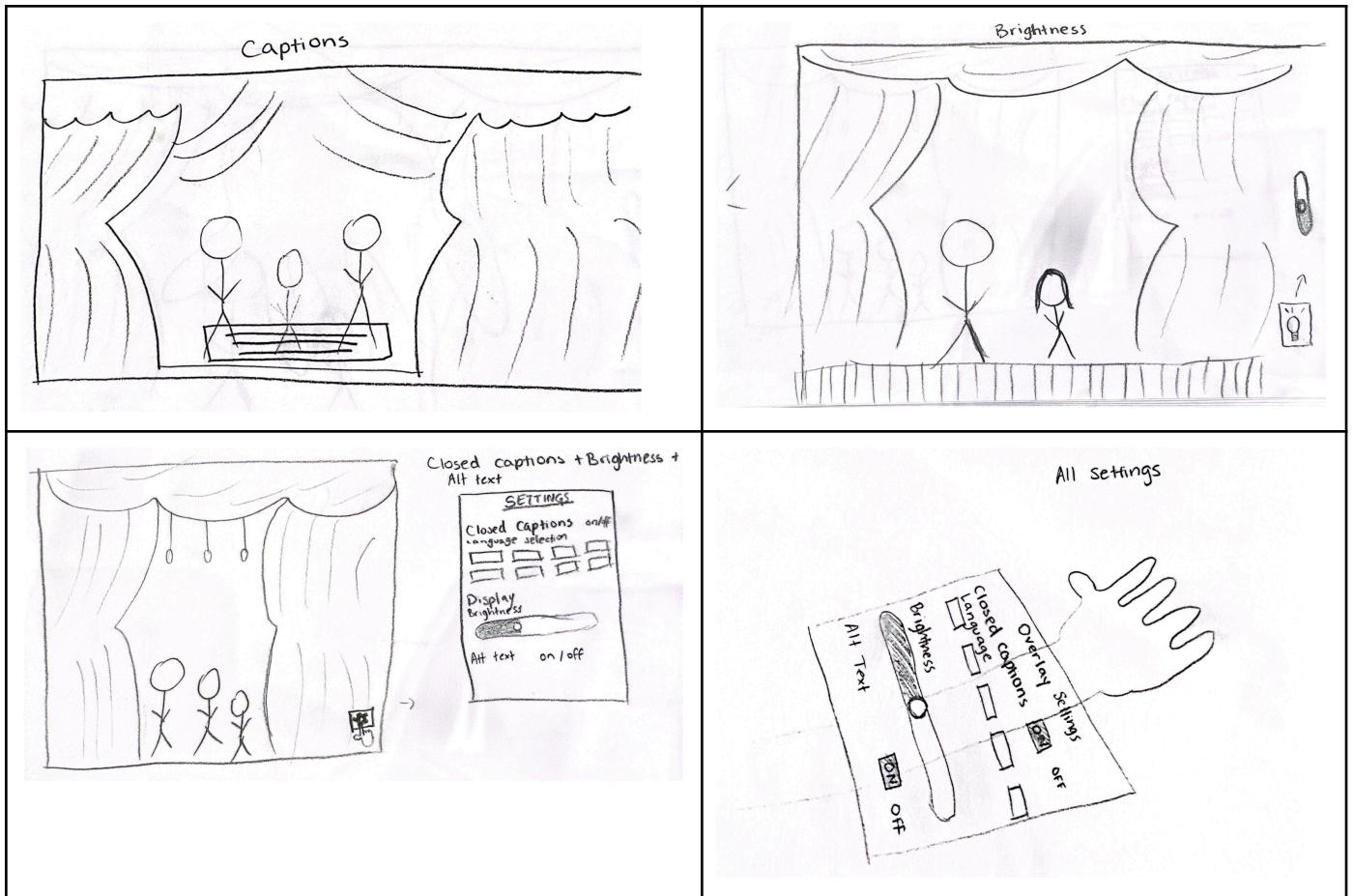


6. Dial to adjust volume



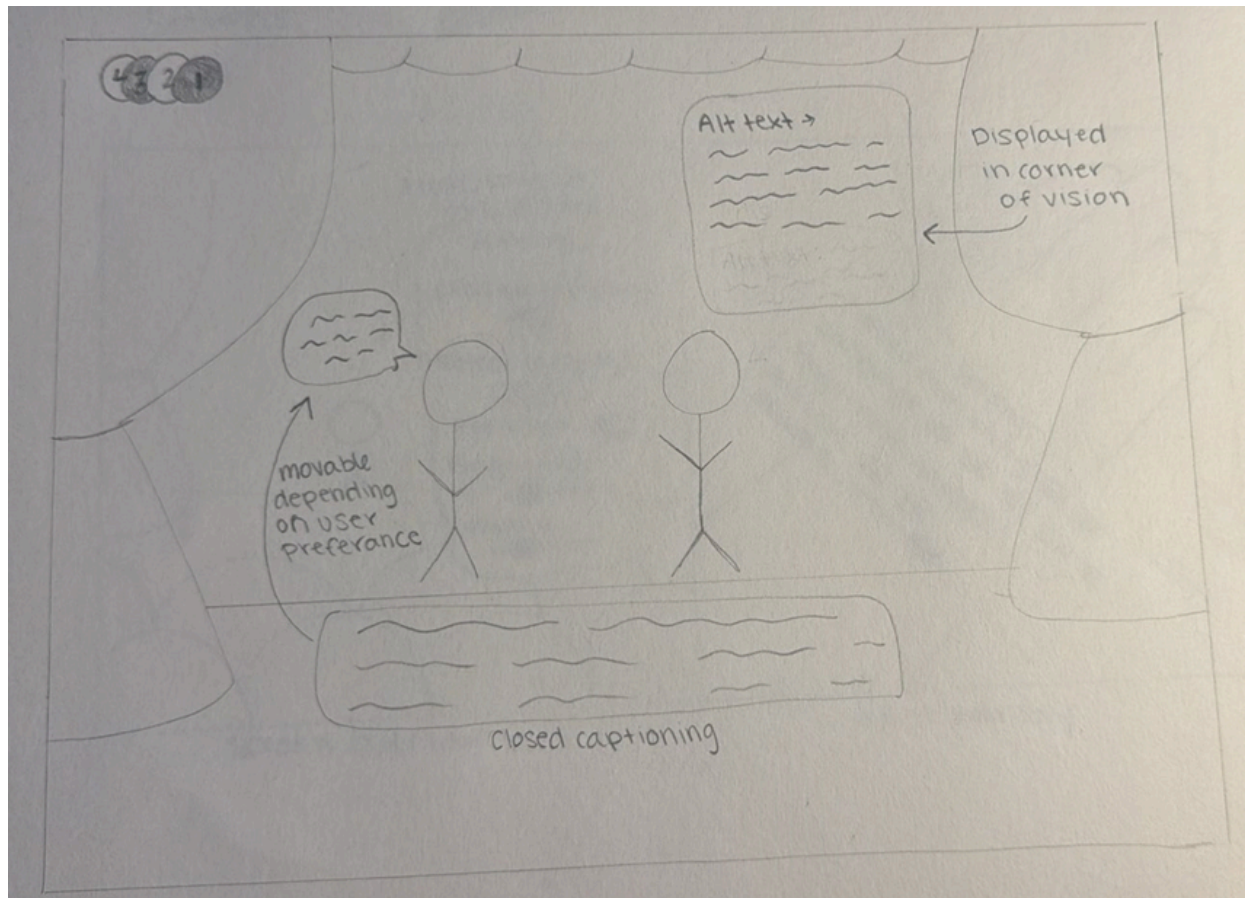
Zainab





Re-Sketch

1. Alt text/closed captions



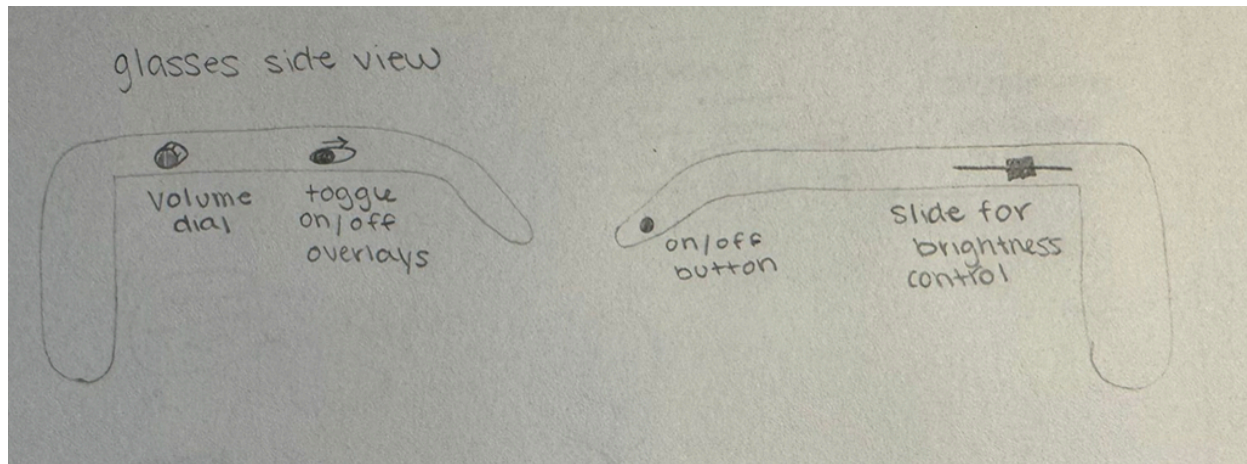
Text overlays are crucial for providing necessary information to the wearers of our devices. This could be **closed captioning** for users with **hearing impairments**, **translations** for users with **language barriers**, or **context** and **labels** for users who are having **difficulty following** the plot and characters.

Users can select which overlays they need to support their play watching experience and toggle each feature on/off. They can also adjust how text overlays appear on the screen, either in settings or by simply dragging them around in AR. By giving the user the ability to pick and choose when or how they want to view closed-captionings or Alt text, it always the experience of the play for each user to be tailored to their needs and wants while giving the best possible experience for them.

Text overlays are less disruptive than supplemental audio, since supplemental audio might clash with the actual sound of the play. To combat this we might need to make it noise-canceling/increase the volume for it to be discernible - which could reduce the user's immersion in the play or disturb their neighbors.

Design challenge: how do we design overlays that are minimally distracting so that users can enjoy the visual elements without excessive disruption?

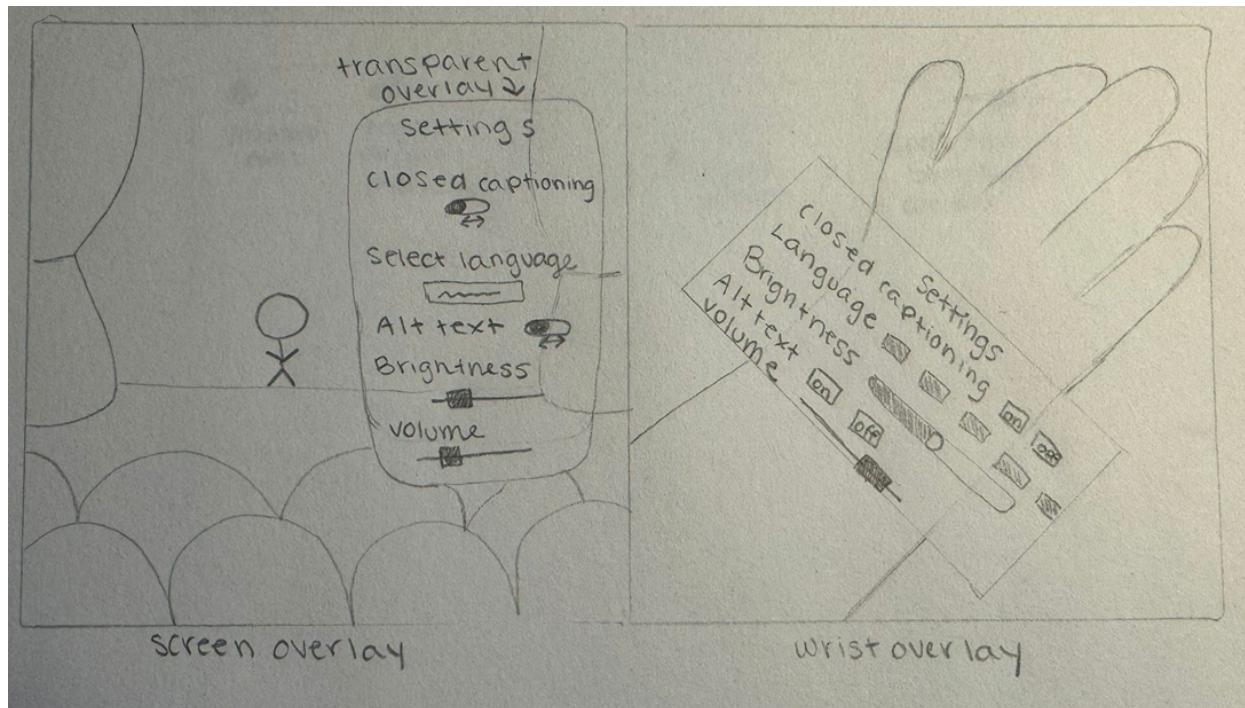
2. Physical buttons



With our physical hardware we plan to design, our group is looking to add physical buttons/dials for easy access to specific functions such as adjusting brightness, adjusting volume, enabling or disabling overlays, etc. By doing this, it creates an intuitive and accessible design for anyone to have quick access to immediate functions that users might want to modify.

Having physical buttons or dials on the headset can help bridge the gap for users in regards to feasibility even with those who have different backgrounds in technology. Regardless of background, turning a button or sliding a toggle/touchpad is something everyone understands rudimentarily. Some potential limitations of this design can be the lack of understanding or familiarity with using AR glasses. This could cause some difficulty using finding the buttons, while having the additional cognitive load of watching a play, and cause disorientation with first time users.

3. Settings



It is essential for users to be able to adjust their settings to suit their needs. The option to view and change settings can be available to users when they look down at their arm, ensuring that the settings do not interfere with their view of the theater performance. Users can easily modify settings, including **turning closed captions on or off, selecting the language for the captions, turning alt text on or off, changing the language for the captions, adjusting the brightness, and adjusting volume.**

This design is promising as it prioritizes users' convenience without disrupting their experience of the performance. Since the settings are only accessed if the user looks at their arm, the view of the theater performance always remains uninterrupted. Moreover, users with visual impairments can hold their arm closer to better see the settings. One possible limitation to this idea is that users would have to briefly look away from the theater performance to adjust their settings, but we hope that the intuitive interface should make this process quick. This idea stood out to our team because it consolidated various settings into one interface. Other ideas included showing icons directly on the main display or displaying all settings on the right of the main display. We proceeded with this idea as it minimized visual clutter.