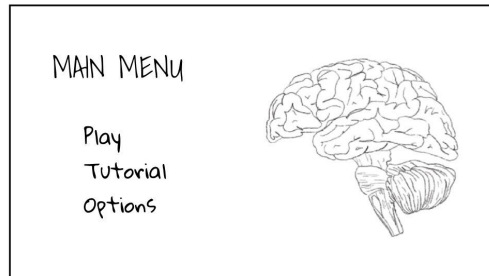Erin Marden, Lindsey Bevilacqua, Citlally Medrano, Stephen Foster

CS.PSY 484
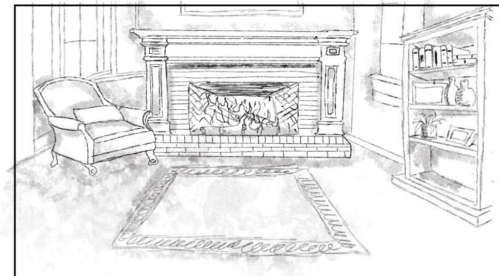
April 10, 2023

# Virtual UX Design
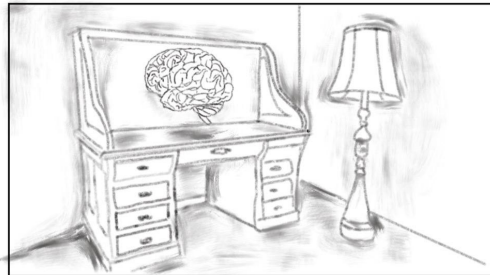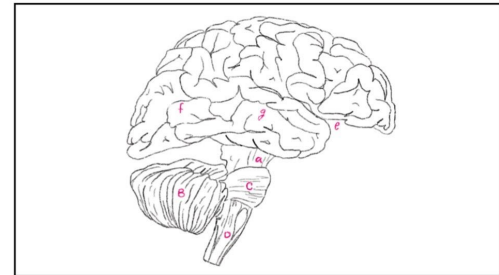
- ***The flow of the experience***



This will the main menu.



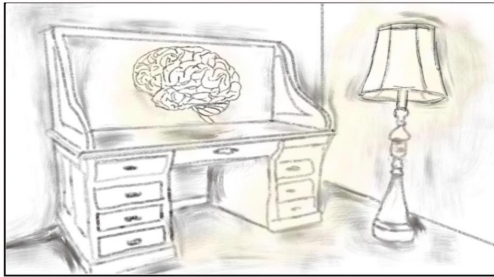This is the parlor, where the character will walk in and look around.



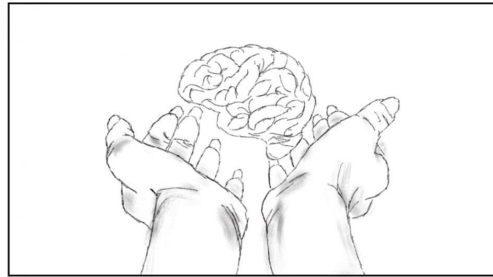This is where the character will go to find the brain and start the level.



This will be a zoomed in version of the brain at the start of the level.

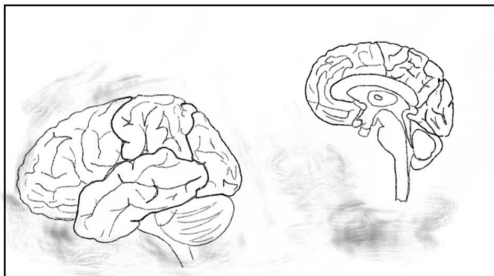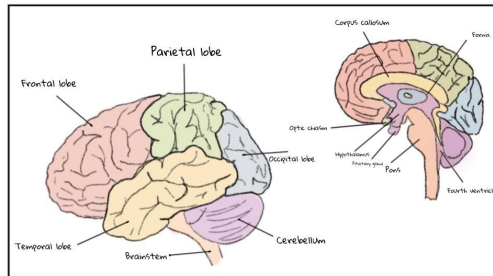**Storyboard title:** Path to main experience          **Group number:**

This is the desk where the brain will be floating waiting for the user to pick it up.



This shows the character picking up the brain and being able to look and turn it.



This shows the diagram of the brain where the player will match the brain with the assigned labels.



This shows the brain diagram with all of the labels that are displayed for each part of the brain .

**Storyboard title:** The main experience                    **Group number:**
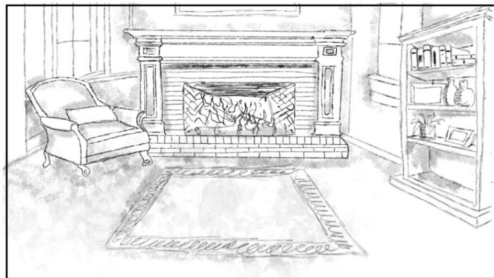


Player is back at the beginning, in the parlor



Player walks up to the bookshelf and sees a removable book



Player is able to take the book out of the bookshelf and open it and read what's inside



Player is able to sit on a nearby chair and read the contents of the book

**Storyboard title:** Path to side experience                    **Group number:**

● ***The interactions offered by the experience:***

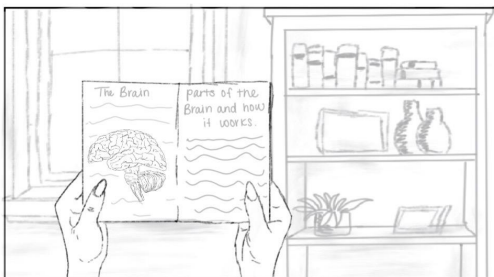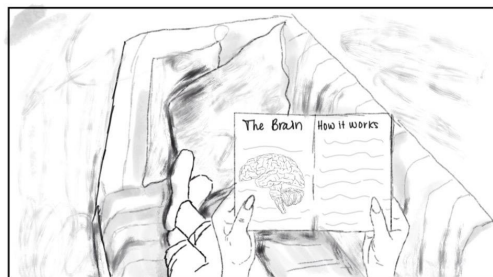| Item | Description |
|---|---|
| Locomotion | The user will move around in the virtual world using head movements, eye tracking, and body movements, with the option of teleportation depending on their environment restraints (Small play area). This is a good choice because our target audience is composed of people who may not have prior experience with VR so it will be easier for them to navigate as all their body movements will correspond to their virtual feedback. A potential side effect is VR sickness in participants due to the head movements. |
| Manipulation | The user will use the controllers to manipulate objects. They will have diagram components and interactable environment objects (a book, a light, etc) to choose from and use the controllers to select the correct diagram components by grabbing them and dropping them in the correct place. These are good interaction alternatives because we will be using simple tasks and instructions to ensure easy access to participants who are unfamiliar with the platform or VR in general. |

● ***Target VR Platform***

| Item | Description |
|---|---|
| Name of the Target VR Platform | Oculus Quest 2 |
| VR Platform Capabilities | Using room-scale tracking, both the HMD position and Hand Controller positions are tracked. |
| VR Platform suitability to the target experience | This is a good platform for our project because it is an embedded system that does not require to be connected to some host machine running the simulation. Additionally, it does not require additional hardware to accomplish room-scale/space-sense tracking. As such, students need only our application installed on their device to experience it. |

| VR Platform Implications | Targeting the Quest 2 allows users the smoothest transition possible into experiencing our application, as non-tech savvy or first-time VR users need only the devices that come with the Quest 2 to get started with no additional setup required. |
|---|---|

● *Forms of providing assistance to users:*

| Item | Description |
|---|---|
| Guidance on interaction | The user will use the headset and controls to look around and see all options as menus. Raycasts from hands will be used to indicate selection targeting in menus, and rendered hands (potentially just spheres) for the in-game experience. Triggers on the Hand Controllers will be used for menu selection and akin to grip/un-gripping an object in-game. There will be a small "tutorial" on the goal of the game as well as how to manipulate controllers and how to correctly use the game, find and change settings, pause, and exit. The in-game pause menu accessible via the Start button will allow access to a settings menu, and an experience tips list. Button hints will be displayed on "Play," and will vanish after a reasonable amount of time. These hints' presence will also be a toggleable option in the pause menu. |
| Guidance on experience mechanics | Starting the experience will be as simple as selecting "Play." Any settings in regard to motion FOV, ambient sound, or UI settings will be accessible through the pause menu. The experience may be ended by activating the door handle in the in-game room, or through the in-game pause menu, which will take the user back to the main menu. |