VR Project Design Document

03|11|2022
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1 App Info

Tentative Title:	Personal Room

	Education & Training		Mental Health & Fitness
	Travel & Discovery		Media & Entertainment
	Productivity & Collaboration		Gaming
✓	Art & Creativity		Other: _____

2 Pitch

To goal is for users to [learn | experience | practice | review | design | **play** | other]:

Play a game of Billiards against each other and interact with objects around the room that showcase what we've learned in class.

This will be especially [impactful | educational | memorable | effective | **fun** | other] in VR b/c:

At a high level, during the app, users will:

Interact with video and audio sources, light switches and particle systems, teleportation areas, a UI canvas and play a game of Billiards

This experience will be targeted at devices with:

[3 | **6**]	degrees of freedom, giving users control over the	[rotation | **movement & rotation**]	of their head & controllers.

3 Basics

The app will take place in:

and the user will get around the scene with:

[**teleport** | continuous | other | N|A - user will be stationary]	movement.

The user will be able to grab:

There [**will** | will not] be sockets:

- **Devices with Video, Audio and Light Sources**
- **Cue Sticks for billiards**
- **An object with a Particle System**

- **On the rack for the Cue sticks**
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-

4 Events & Interactions

There will be haptic / audio feedback when:

- **A user hovers over an interactable object**
- **A user selects an interactable object**

There will also be 3D sound from:

- **A fireplace, a record player, and a television**
-

If the user is holding:

TV Remote	and presses the trigger,	**A video will play on the TV**
Flashlight	and presses the trigger,	**The flashlight will turn on and off**
Phone	and presses the trigger,	**A video will play on the phone**
		Suggestions: a UI change, a sound/video plays, a particle plays, an object is spawned or destroyed.

By default, the left hand will have a:

[Direct | **Ray**]	interactor.

and the right hand will have a:

[**Direct** | Ray]	interactor.

And you [**will** | will not] be able to toggle on a [Direct | **Ray**] interactor using the [**thumbstick** | button].

The main menu will be located:

- **In front of the user when the scene loads**

and from the main menu, the user will be able to:

- **Reset the scene and access Settings**
-

[Optional] There will be additional UI elements for:

- **Enabling Snap Turning**
-

5 Optimization & Publishing

To make the user experience more accessible / comfortable:

- **There will be a fade canvas in place when the scene loads and when the user teleports**
- **Optimized to visually run smoother**
-

Given that this app is targeting the [headset model], target metrics are:

Frames per second:	>= _____	FPS
Milliseconds per frame:	< _____	ms (= 1,000 / FPS)

Triangles per frame:	**<200**	tris
Draw calls per frame:	_____ - _____	batches

Lighting strategy:

	All baked	✓	Mostly baked with some mixed		All real-time

Light probes [**will** | will not] also be used for more realistic mixed lighting.

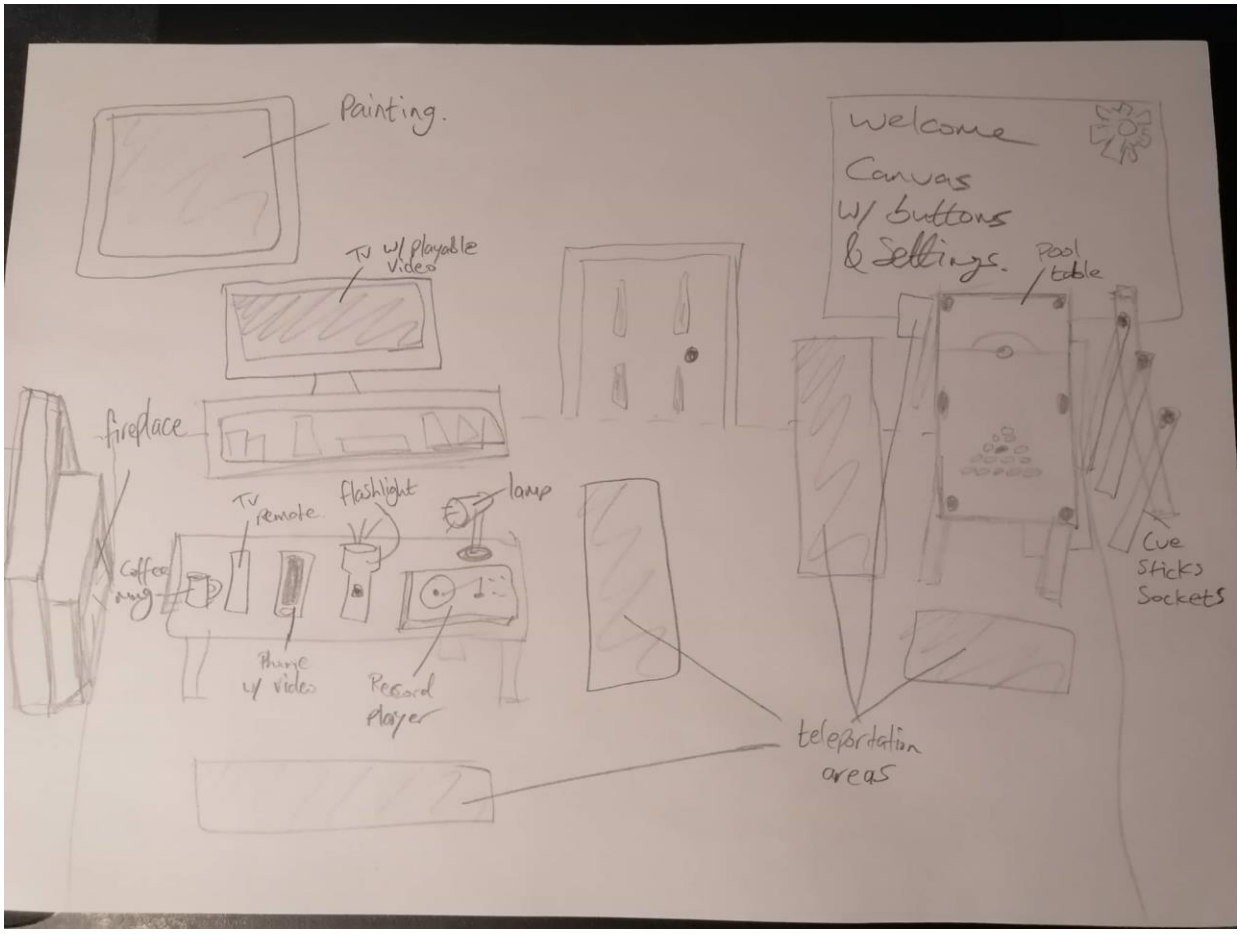
6

Other features (Optional)

-
-
-
-
-
-
-
-

7

Sketch (Optional)



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Timeline (Optional)

	Milestone	Date
1	-	
2	-	
3	-	
4	-	
5	-	