

# VR Project Design Document

11|04|2022  
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## 1 App Info

Tentative Title:	Pianoscape	
	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]:

Solve puzzles using a piano to open the door

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

Fun

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

Find sheets and solve puzzles by playing the correct notes on a piano

This experience will be targeted at devices with:

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

The app will take place in:

A eerie room

and the user will get around the scene with:

[teleport]

movement.

The user will be able to grab:

- Sheets
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There [will] be sockets:

- Sheet stand on piano
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## 4

### Events & Interactions

There will be haptic / audio feedback when:

- A player hits a key on the piano
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There will also be 3D sound from:

- Ambience sound
- Piano

If the user is holding:

Pointing at a piano key	and presses the trigger,	A note will play
Pointing at the piano tutorial video	and presses the trigger,	The tutorial video will play
Holding a clue sheet while pointing at the piano sheet stand	and presses the trigger,	The sheet will be placed on the sheet stand
		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:

[Ray] interactor.

and the right hand will have a:

[Ray] interactor.

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

The main menu will be located:

At spawn

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

- Settings/Change volume
- Play tutorial video

[Optional] There will be additional UI elements for:

-

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## 5

### Optimization & Publishing

To make the user experience more accessible / comfortable:

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

Frames per second:	>= 72	FPS
Milliseconds per frame:	< 14	ms (= 1,000 / FPS)
Triangles per frame:	50,000 – 100,000	tris
Draw calls per frame:	50 - 100	batches

Lighting strategy:

☐ All baked

☒ Mostly baked with some mixed

☐ All real-time

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

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6  
Other  
features  
(Optional)

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-

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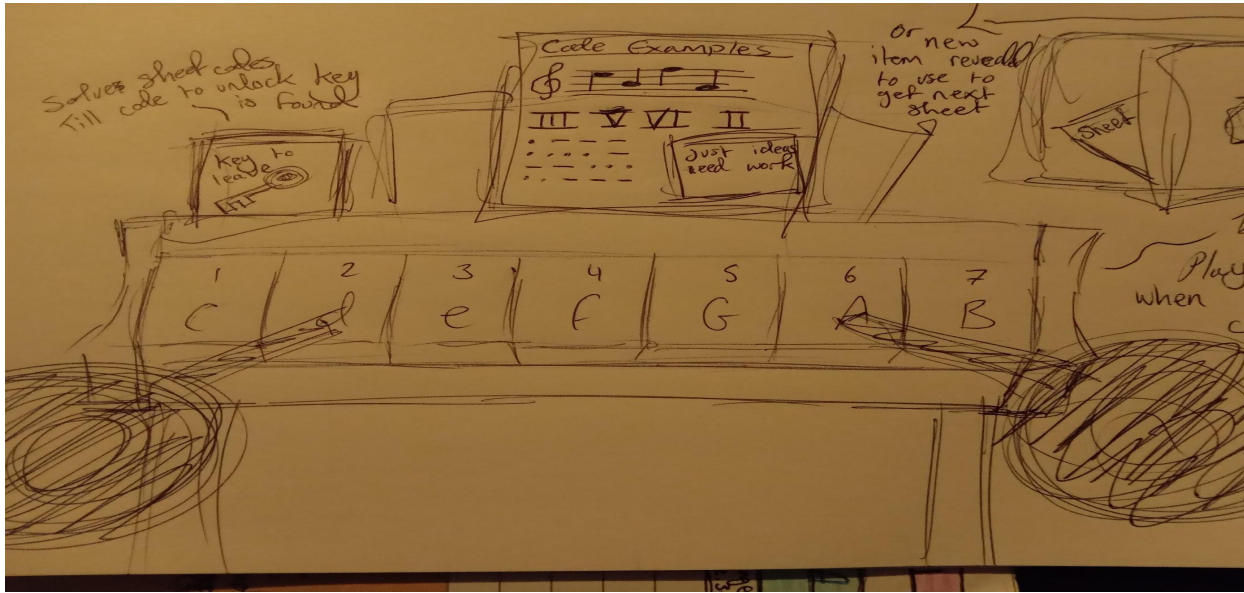
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7  
Sketch  
(Optional)



8  
Timeline  
(Optional)

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