

# The Shy Cloud

## INTRODUCTION

Animation | Model | Interaction | Drawing

This is an interactive setting called “shy cloud” which can make experiencers interact with clouds through blowing or moving the hands, helping people relax and heal soma and mentality and feel the wonderfulness of clouds and the sky. Meanwhile, this setting can satisfy every clouds amateur to have a cloud belonging to themselves only.



# INSPIRATION

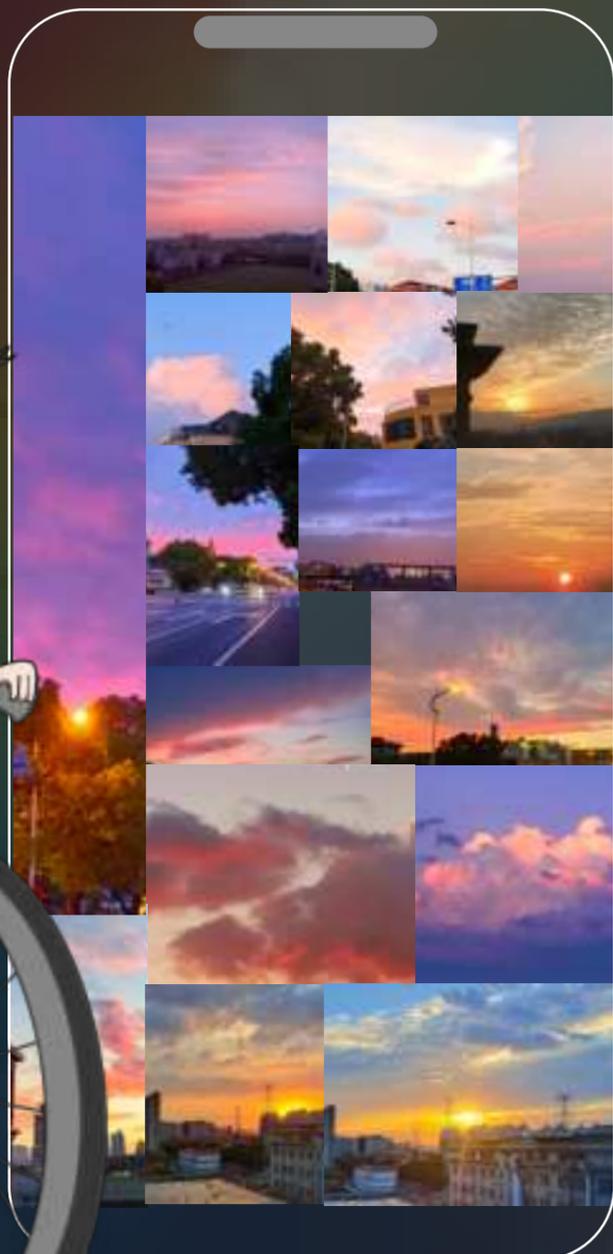
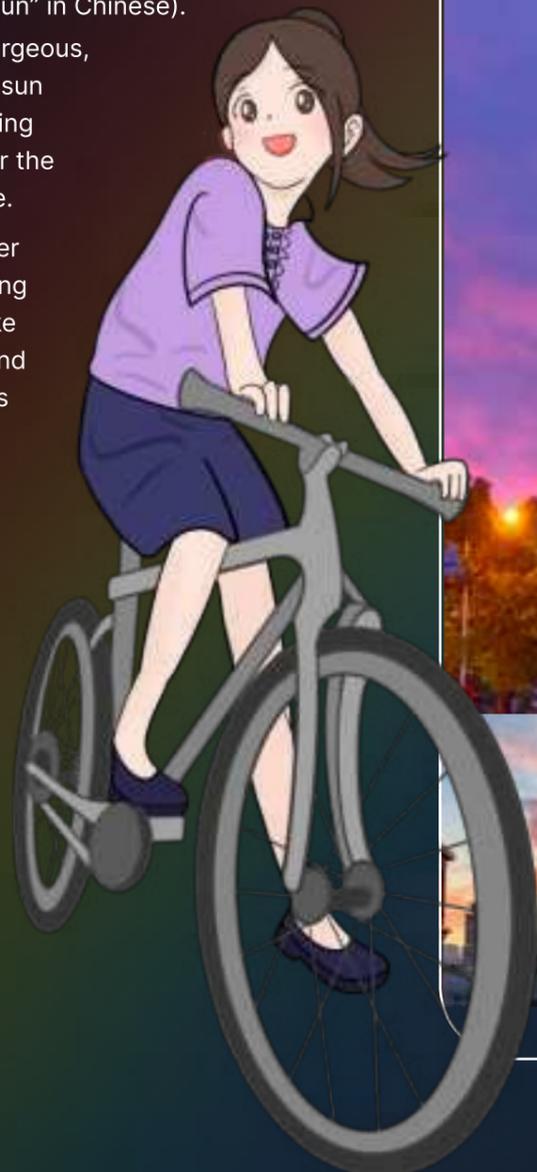
I am keen on clouds and my Chinese name also has the word cloud (corresponding to "yun" in Chinese).

Clouds are highly gorgeous, especially when the sun rises and sets, emitting rainbow colors under the radiation of sunshine.

The clouds in summer are most good-looking and I often riding bike while appreciating and snapping nice clouds at dusk.

I saw clouds of various shapes like flake and point changing with weather, which are highly interesting.

I am intrigued by the natural beauty of clouds and eager to share my excitement and joy about clouds with others.



# MINDMAP

sponge cotton Variable  
soft wool form  
bread Why cloud always  
comforis me!  
fly with the wind colour  
relax random free glow  
Sunlight reflection

## "Cloud collection"

I have a book named *The Cloud Collector's Handbook*, and I always record peculiar clouds in relevant pages of this book while identifying the type and origin of each cloud. Its very meaningful.



# RESEARCH

## Origin of clouds

Clouds are created when water vapor, an invisible gas, turns into liquid water droplets. These water droplets form on tiny particles, like dust, that are floating in the air.

From:Climatekids.nasa

## What factors affect the shape and height of clouds?

The different shapes, textures and other features of clouds depend largely on the conditions under which they form and later develop. For instance, temperature, humidity and altitude are all factors that affect cloud formation.

From:Biosidmartin.com

## What affects how a cloud looks?

The appearance of a cloud is affected by the amount of light that is reflected, scattered and transmitted by the cloud.

## Types of clouds

In 1929, World Meteorological Organization (WMO) classified clouds into ten types according to its shape and origin: cirrus, cirrocumulus, cirrostratus, altostratus, altocumulus, stratus, stratocumulus, cumulonimbus,cumulus.

Moreover, the clouds are divided into three etages according to the height of cloud base: high clouds, mesoclouds and low clouds.

High (cirro-, cirrus)	Middle (alto-)	Low (strato-, stratus)
<p>High clouds form at altitudes above 6,000 meters, in the colder part of the troposphere. At this altitude, water crystallizes, so clouds of this family are made of ice crystals.</p>	<p>Mesoclouds form at altitudes between 2500m and 6000m. They are made up of small spots of water that are overfrozen.</p>	<p>Low clouds are formed in the atmosphere below 2500m. These include dense gray stratocumulus clouds, stratocumulus clouds, and dense gray rainy clouds with rain.</p>
<p>Altostratus</p>	<p>Cirrocumulus</p>	<p>Cumulonimbus</p>
<p>Cirrostratus</p>	<p>Cirrus</p>	<p>Altocumulus</p>
<p>Stratocumulus</p>	<p>Stratus</p>	<p>Cumulus</p>
		12km
		9km
		6km
		3km

# CASE STUDY



1. **Nimbus** is a mimic cloud made by the artist Berndnaut Smilde indoors, which was made up of **smoke and vapor** only. Specifically, the artist sprayed vapor in the air and ejected small particles by sprayer, and then vapor condensed around the particles, thus forming a cloud indoors.

2. The artist Charles Petillion piled up **white balloons** into clouds, feeling like touching the sky indoors. "I try to use these balloons to let people notice unimpressive things in daily life. As they are indeed existing, we just turn a blind eye to them," said Charles Petillion.



3. **Seeking a Dream** is an artistic setting made by the artist Zhou Yang. "When I was little, my dream was to lie on the clouds and look at the sky, hence we combined **cotton fibre and lights** to realize my childhood dreamland through this setting," said Zhou Yang.

# Interview

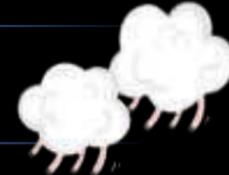
I wanted to know what my friends thought about clouds, thus interviewing some.

Q : What does a cloud look like? How does it make you feel?

Susie:  
Clouds are **gentle**, like friend's accompaniment.



Tonny:  
Clouds are like **sheep**, very **cute**.



Tina:  
Clouds are like **cotton fibre**. I want to sleep on the clouds.



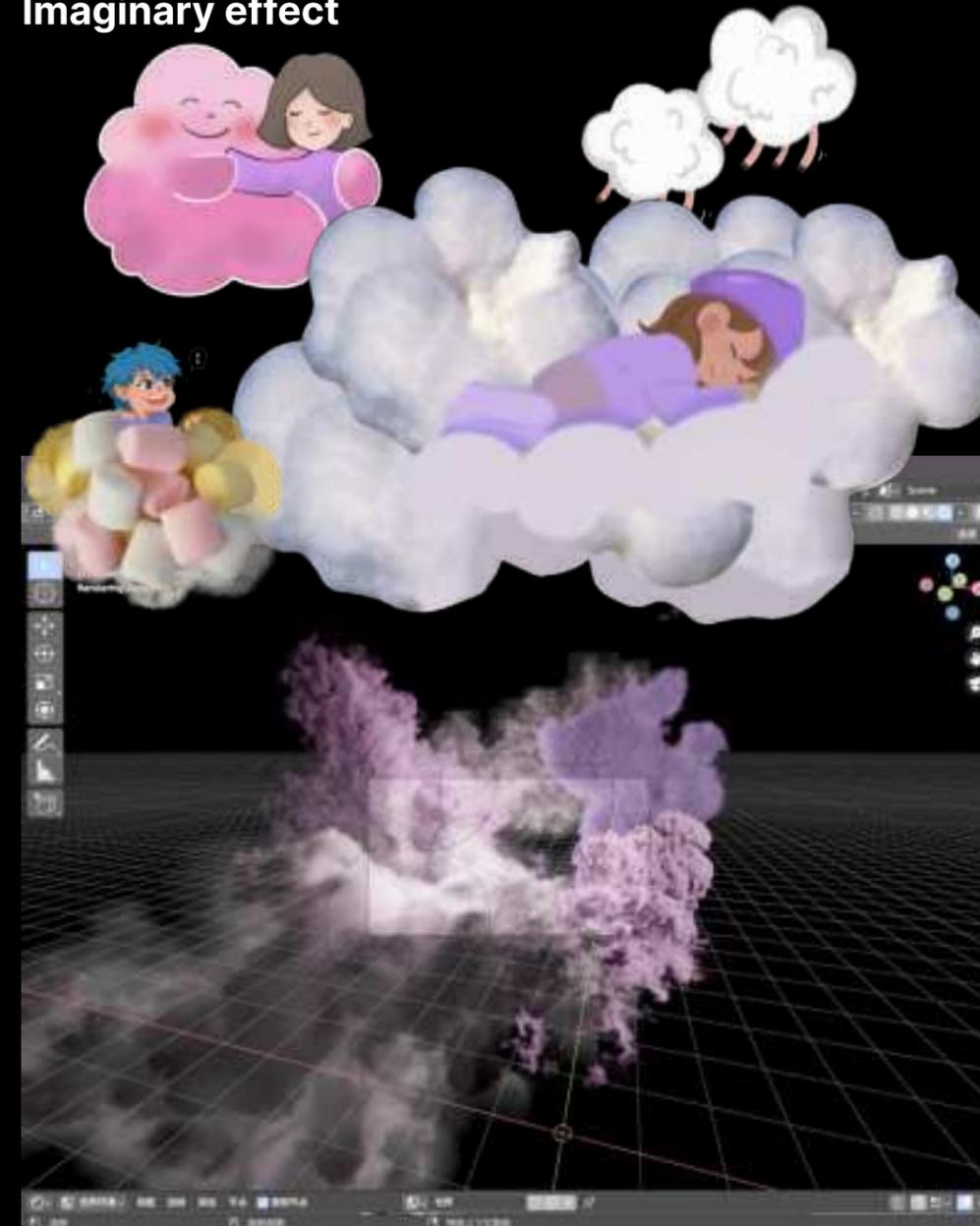
Bob:  
Clouds are like **soft marshmallow**. I want to have a look on the clouds.



## Conclusion

I decide to make a cloud that belongs to me and can interact with me, making the cloud amateur like me feel the beauty and healing power of clouds.

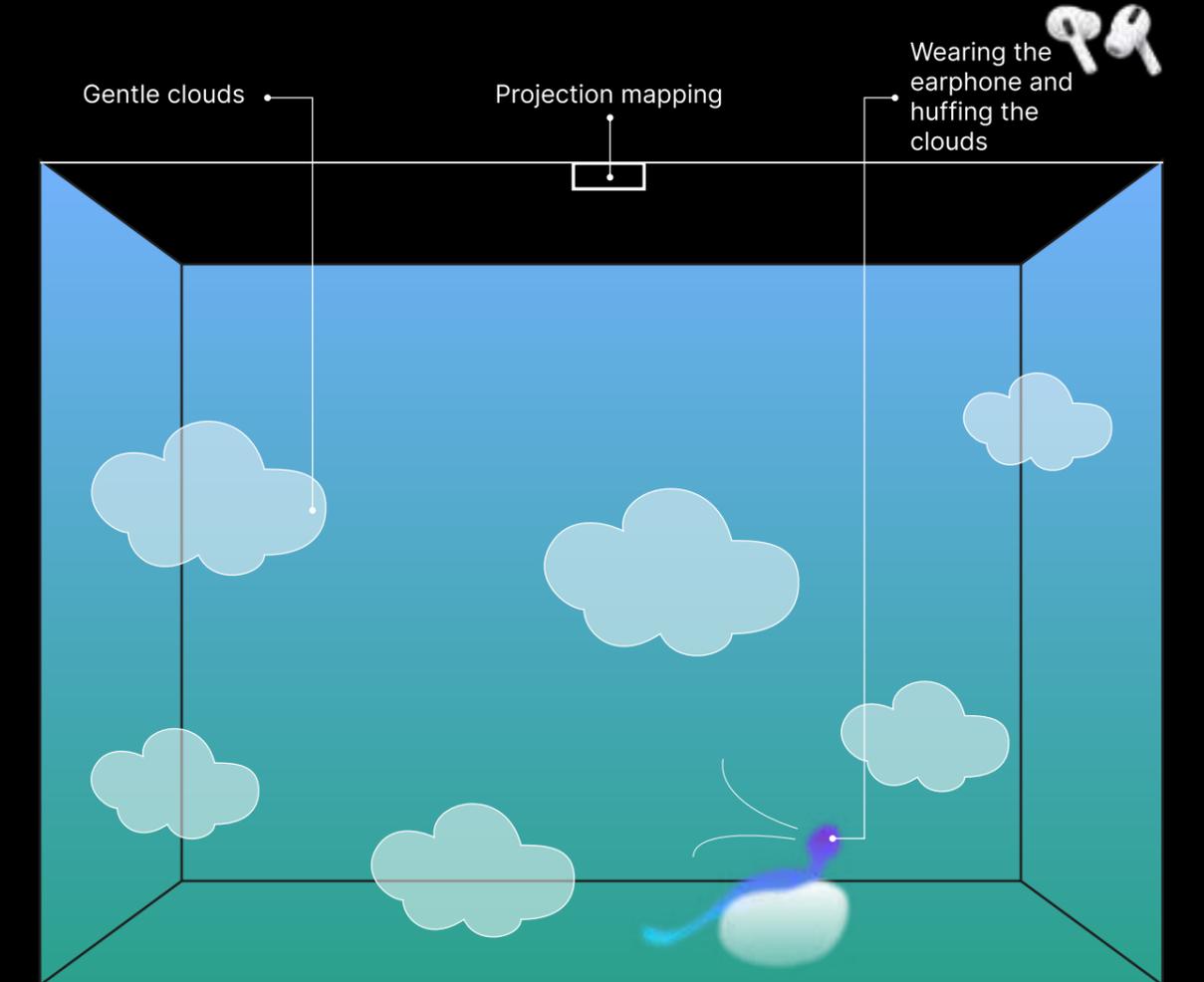
## Imaginary effect



# CONCEPT

## The Shy Cloud

I want to imitate the effect of blow through huffing. Clouds will slowly spread out after being huffed, which is funny like just like Aeolus. I want to make clouds wave with movements of my hand, just like friend's company.



# PROCESS

## Cloud making

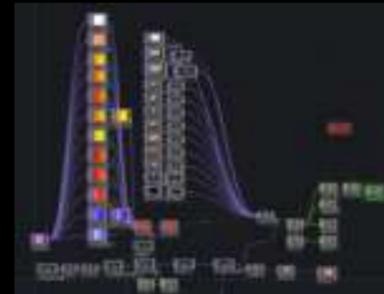


1. In order to reflect the foggy texture of the clouds, I learned TouchDesigner to do the dynamic effect of the **feedback**.

2. I put several round shapes together to make the **volume of clouds**.

3. In order to present cloud's **gentleness**, I adjusted relevant parameters, such as **smoke fade**, **vorticity from velocity**, **smoke per burn**, **buoyancy**, **expansion**, etc.

## Interaction setting



1. In order to realize the effect of spreading out clouds through huffing, I added **effector collecting volume** to receive the voice of huffing, thus affecting cloud's movement.

2. In order to make cloud move with hand, I **associated with cloud position and mouse**, hence cloud will move with hand. However, controlling cloud by hand is hard to realize.

3. Ultimately, I added many **chroma modulators** and picked some of my photography about clouds to make clouds **change colors** with the background of my photos.

# FINAL EFFECT



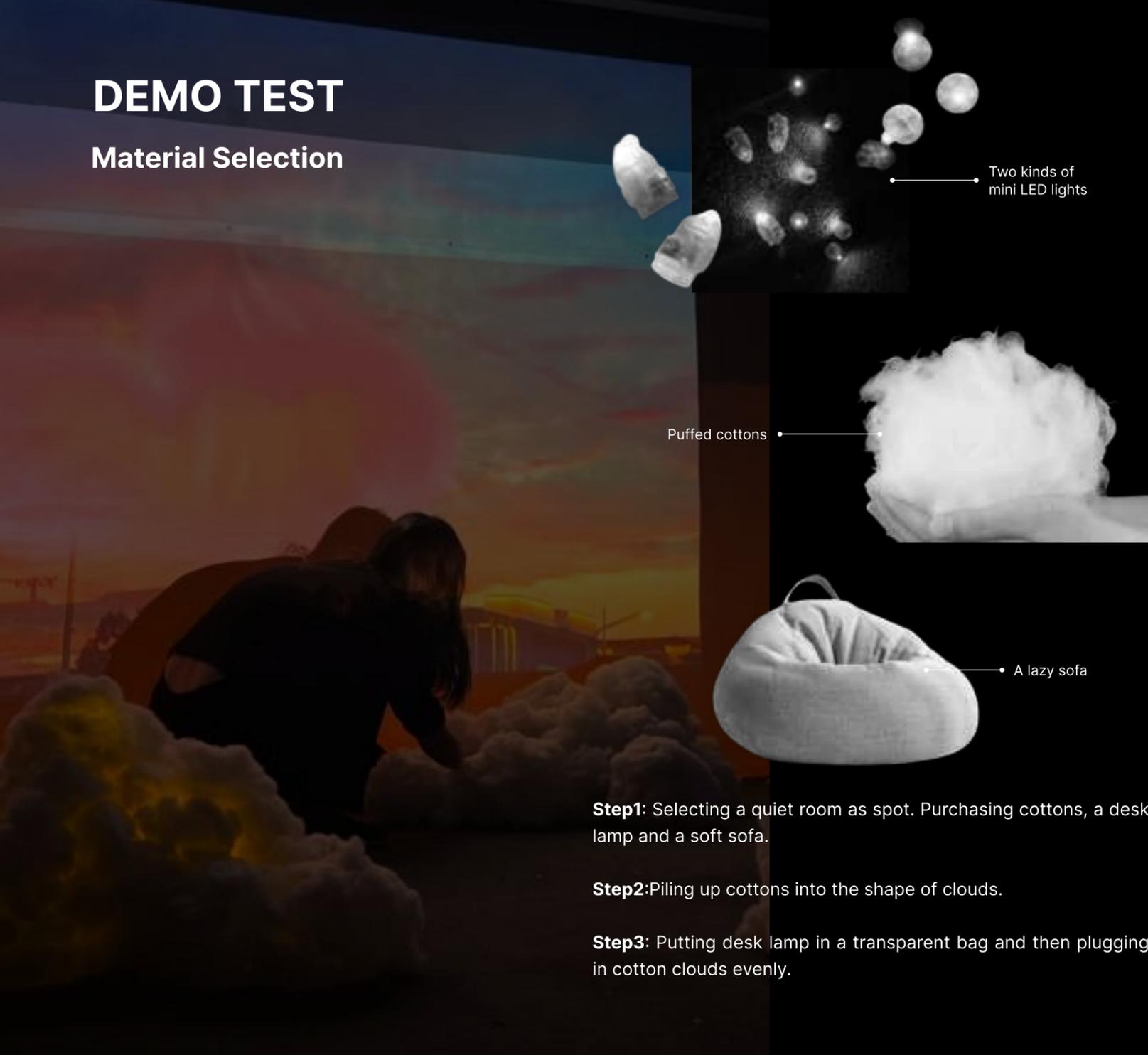
## Scene modeling

I employed Blender to make the module of experience space. The experiencer sits on a gentle sofa and looks at the clouds projected on the wall, and there is thus imbued with clouds, making him feel on the real scene.



# DEMO TEST

## Material Selection



**Step1:** Selecting a quiet room as spot. Purchasing cottons, a desk lamp and a soft sofa.

**Step2:** Piling up cottons into the shape of clouds.

**Step3:** Putting desk lamp in a transparent bag and then plugging in cotton clouds evenly.

# SCENE SETTING



## Interactive process



**Step 1**  
Wearing the earphone to make the device receive a clear sound.



**Step 2**  
Sitting on the sofa in a cozy gesture.



**Step 3**  
Huffing the clouds which will spread out like being blown by wind.



**Step 4**  
Grasping clouds by hands, which will dislocate with movement of hands.(Envisaged effects)



## Video

I blew out and clouds spread out immediately, which is highly lovely like a shy child. Therefore, I named this work as Shy Cloud, and I also invited my teacher to interact with this work and shot a video in the end.

<https://vimeo.com/899394639?share=copy>