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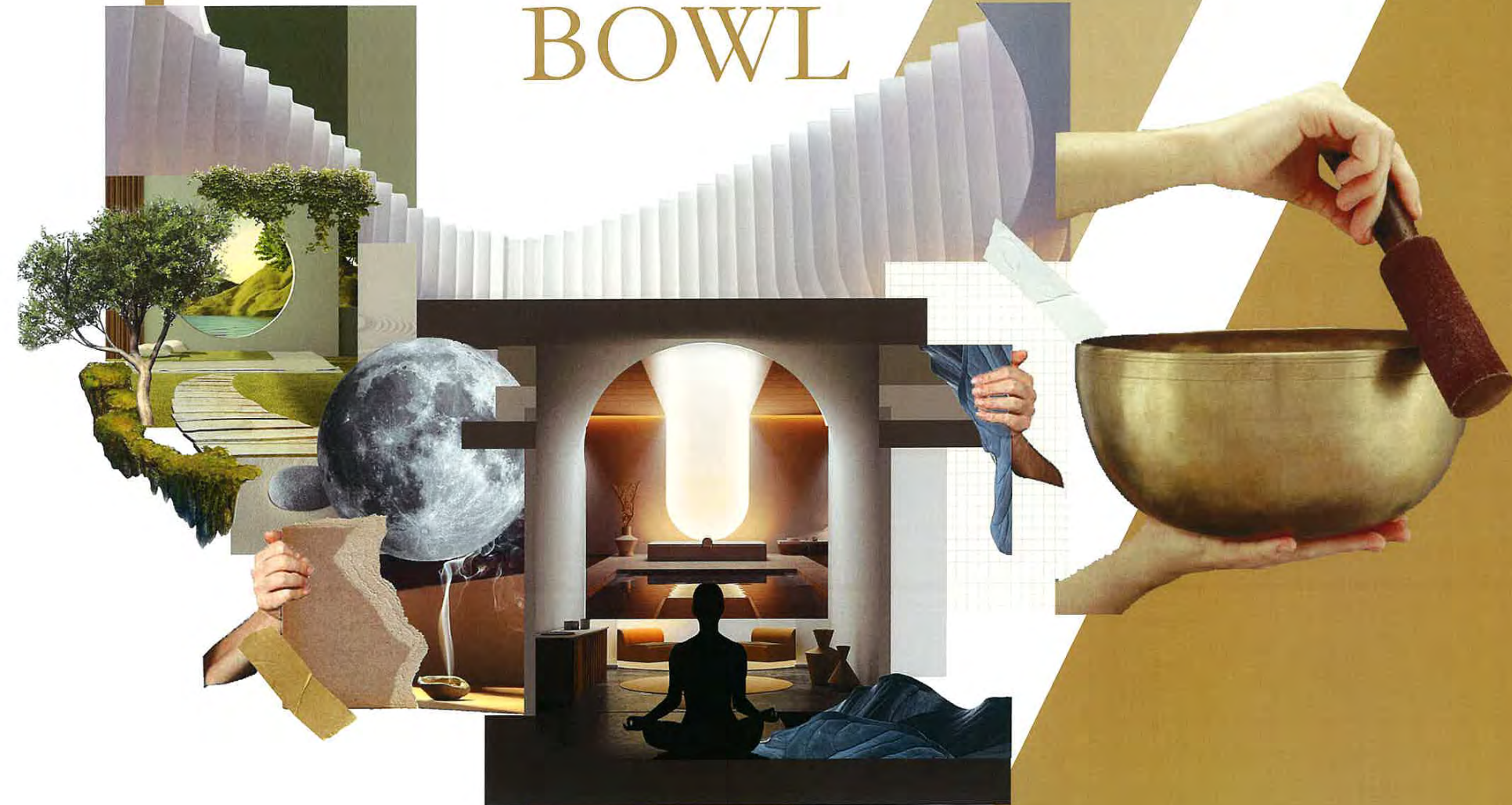
Mana Tohu Mātauranga o Aotearoa
New Zealand Qualifications Authority

Scholarship 2023

Design and Visual Communication 93602

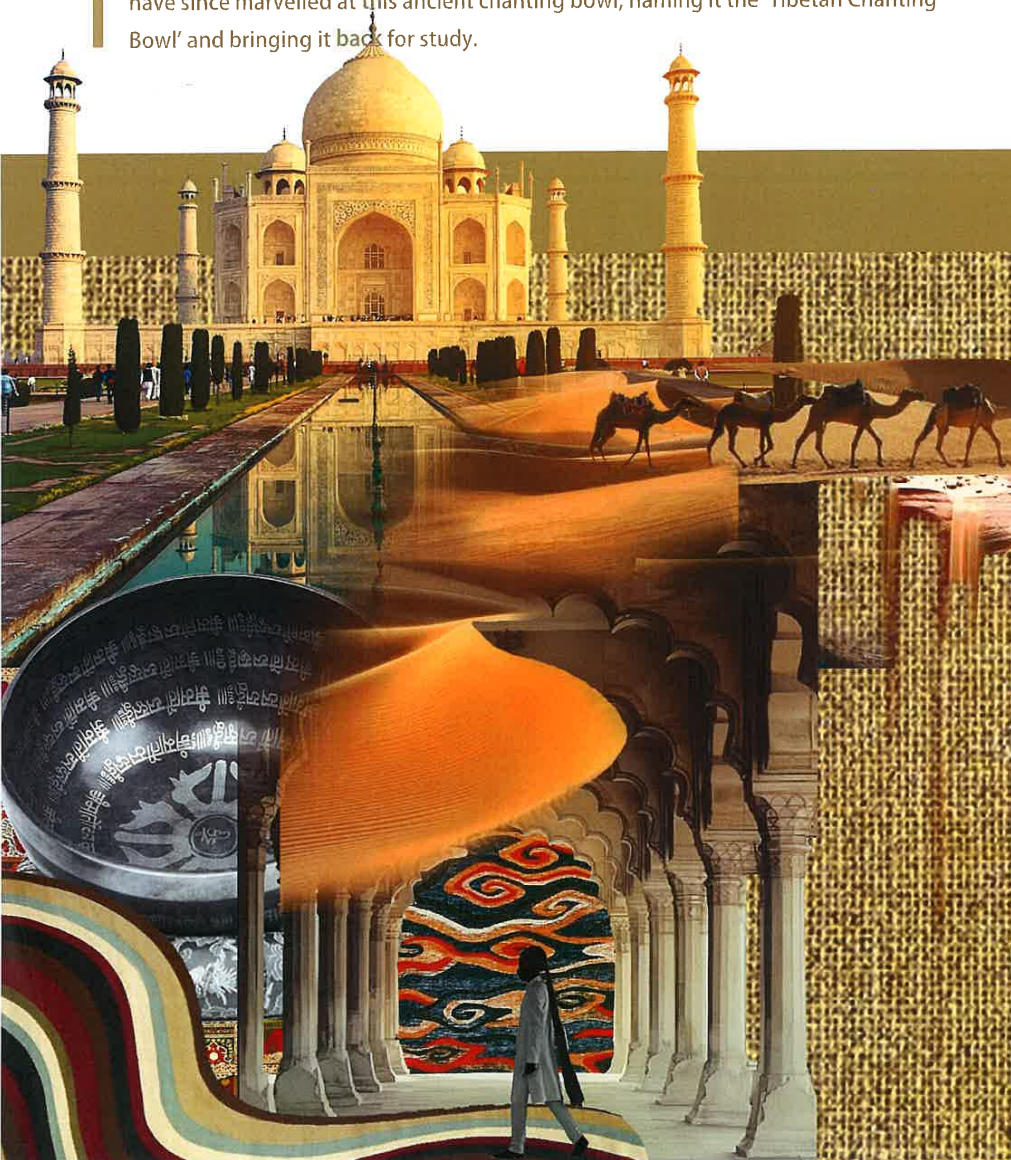
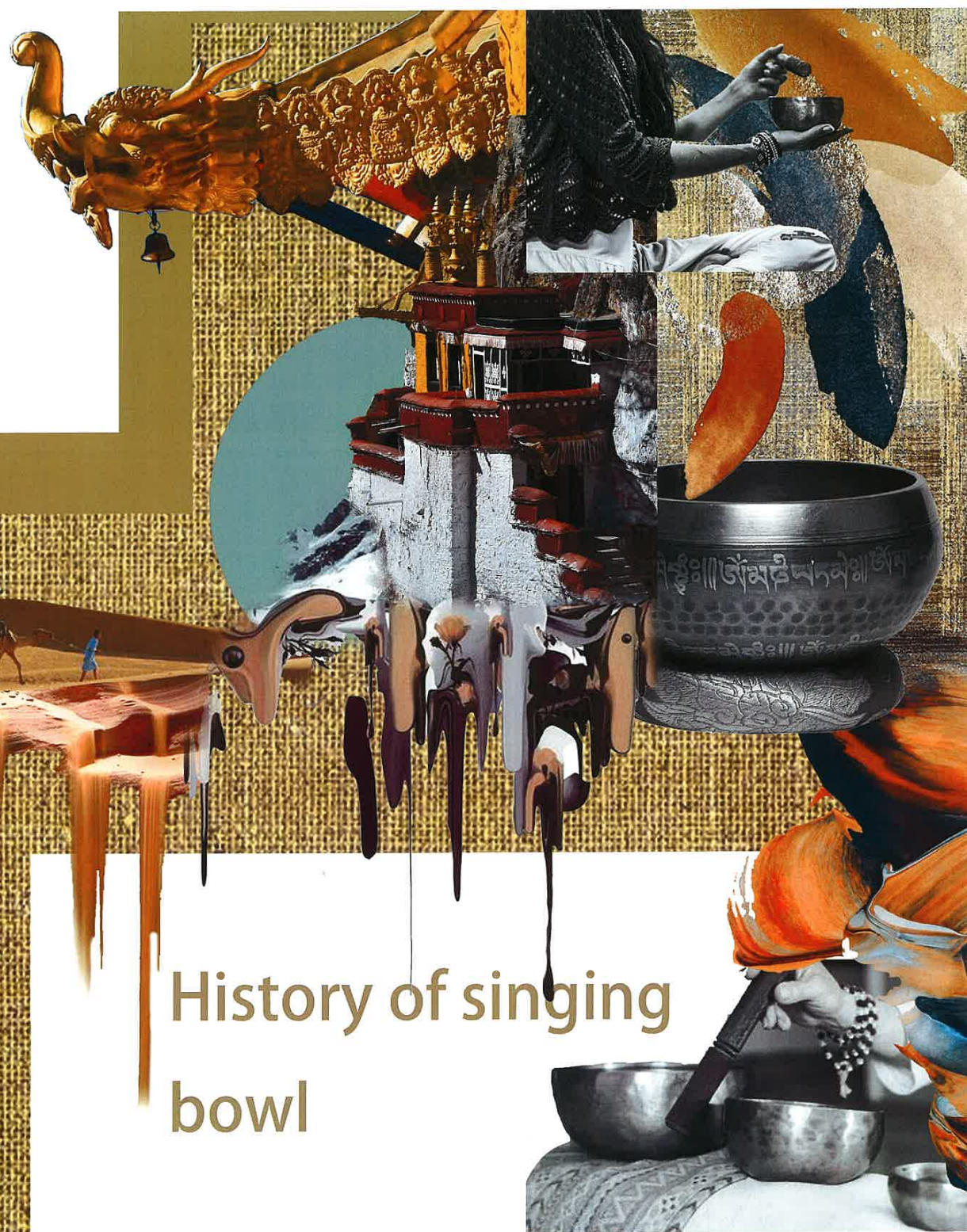
SCHOLARSHIP EXEMPLAR

LIGHTING PRODUCT SINGING BOWL



The origin of the bowl is full of many mysterious rumours, the bowl first appeared in ancient India more than 2400 years ago. It is pounded by hand. The bowl was also used by many artisans as a daily food vessel, and food was even kept sealed inside the bowl, which was used as a daily food vessel in many households at the time.

Buddhism spread from North India to Tibet and then to Nepal, a particularly religiously developed place, said to be the birthplace of Buddha Shakyamuni, so many pilgrims travelled here. Some of these bowls are inscribed with Buddhist Sanskrit texts, meaning that the sound of the bowl is accompanied by the chanting of sutras. Western visitors have since marvelled at this ancient chanting bowl, naming it the 'Tibetan Chanting Bowl' and bringing it back for study.

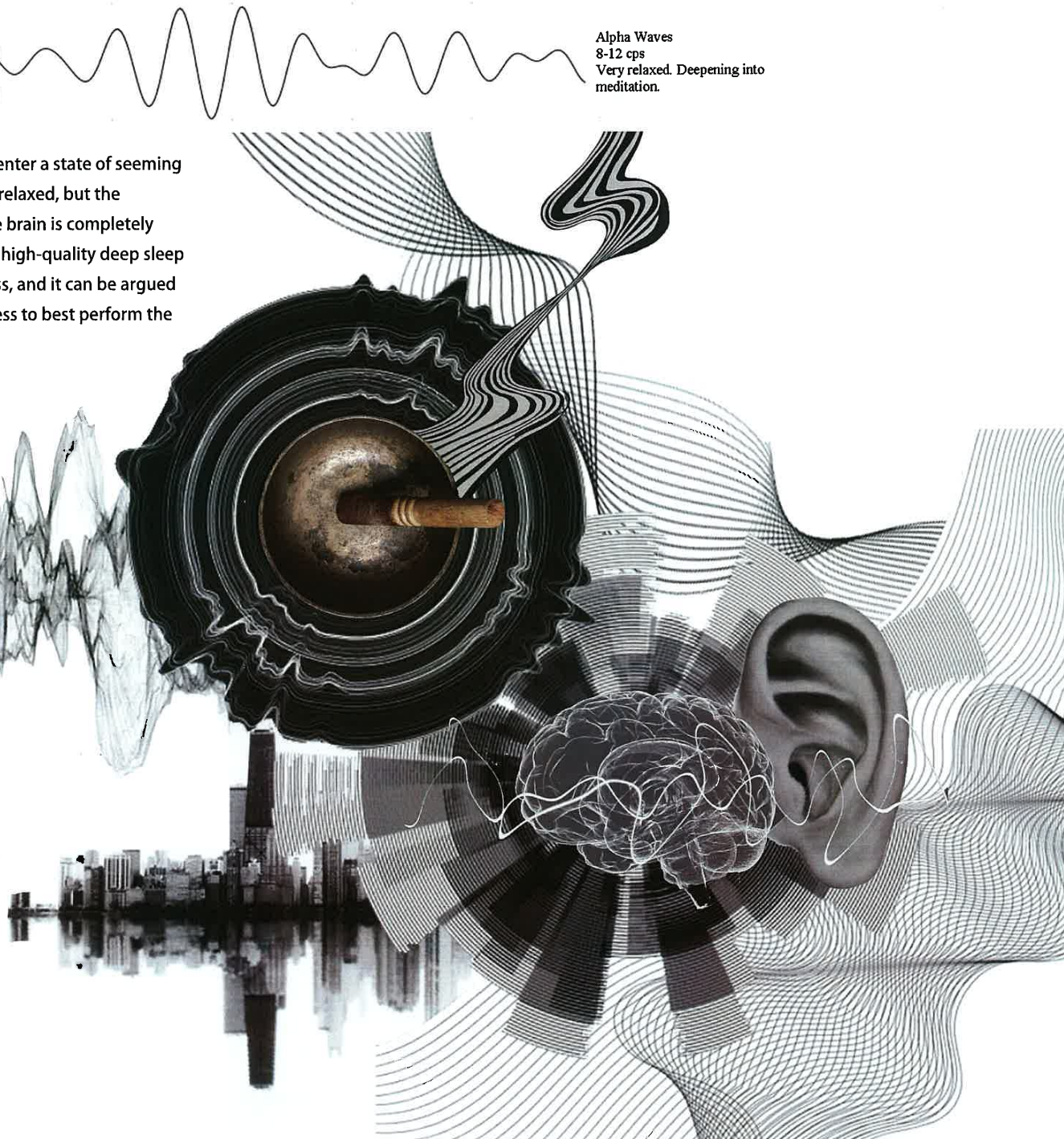


ALPHA WAVE

Alpha Waves
8-12 cps
Very relaxed. Deepening into
meditation.

The alpha wave is the brain wave that makes people relax, when they enter a state of seeming sleep; the theta wave is the brain wave that makes people completely relaxed, but the subconscious mind is awake, which is the state of light sleep, when the brain is completely rested; and the delta wave is the state of unconscious sleep, which is a high-quality deep sleep state. Each brainwave has its own corresponding state of consciousness, and it can be argued that different brainwaves are needed in different states of consciousness to best perform the brain's work.

Modern instruments measure the frequency of the vibrations emitted by the mantle to be between alpha and theta, which is the reason why modern science has proven that the mantle can help us to enter a state of deep relaxation, that is to say, to fall asleep. This is because the frequency at which the bowl is struck allows one to enter rapidly into the alpha wave, thus bringing one to a state of subconsciousness where the body and the brain can make a connection that allows one to perceive more clearly one's inner emotions and physical discomfort. This is the essence of the chanting bowl, the development of the mind.



Singing
bowl

Bend
shape

Smooth
shape?

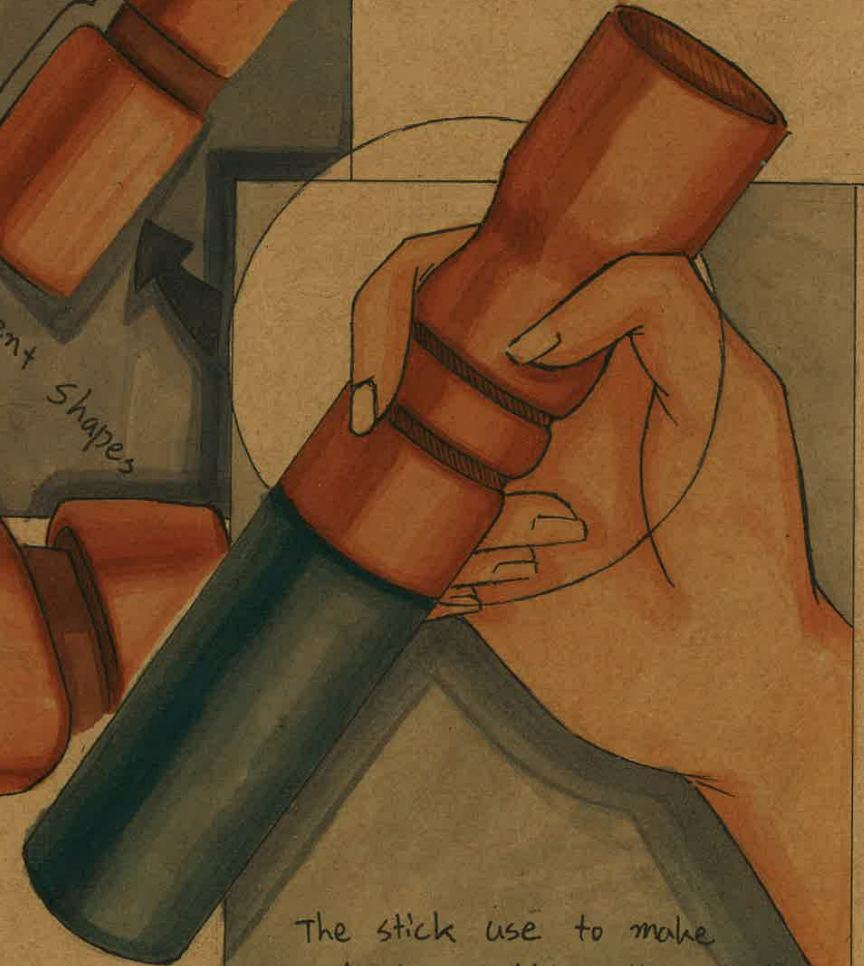
different
shapes.

Compare the size
and shape of the
different bowls

Bowl



Stick



The stick use to make sound by rubbing the singing bowl.



Sound Movement

when the singing bowl make sound - the sound also will spread.



Movement

- when the stick rubs the singing bowl, there is an oval or circular movement.

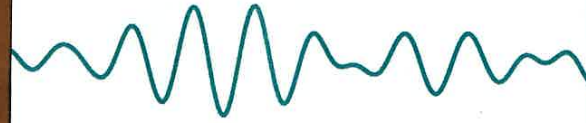
- to movement





Alpha waves
7 Hz to 13 Hz

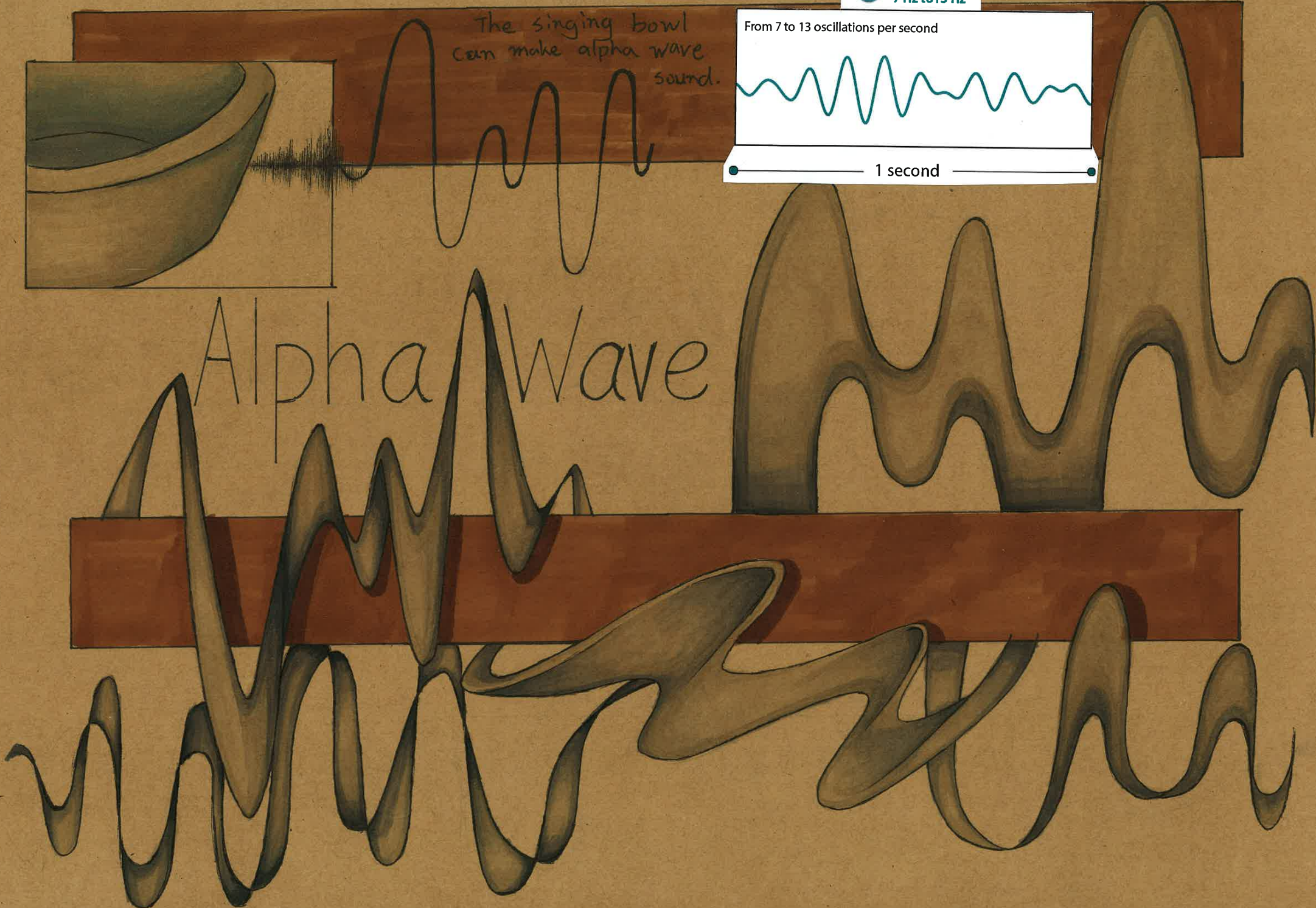
From 7 to 13 oscillations per second



1 second

The singing bowl
can make alpha wave
sound.

Alpha Wave



context

- WHERE will the product be located?

This design product will be in an activity building belonging to the school, but outside the school, which will be an indoor space for meditation, and retreat space for the students in the school.

- WHAT is the cultural context for the product?

At the school, the Catholic faith plays a unique and integral role in shaping the character of students. One example of this is the compulsory Religious Education programme, which includes retreats. These retreats provide a valuable opportunity for students to step away from the hustle and bustle of daily life and spend a quiet day reflecting on their spiritual journey. During these retreats, students are guided through a variety of activities, including guided meditation, group discussions while sitting on the floor, drawing, and other reflective exercises. By taking the time to reflect inwards and think deeply about their beliefs. These retreats are truly spiritually nourishing and offer a calming respite from the stresses of everyday life.

- WHO will be using the product?

This product is designed for students and teachers meditating from Year 7 to Year 13. It can accommodate classes of up to 30 students and provides a comfortable and cosy learning environment where students can wear a mufti, leave their hair loose and even bring slippers and blankets. However, it is important to note that in order to maintain a safe learning environment, a number of restrictions must be considered. The law therefore requires schools to have procedures in place to ensure the safety of students at all times. If these are not followed, the headmaster and the board may be held accountable. It is therefore vital that these procedures are followed and that the safety of all students is taken seriously.



- Lighting products

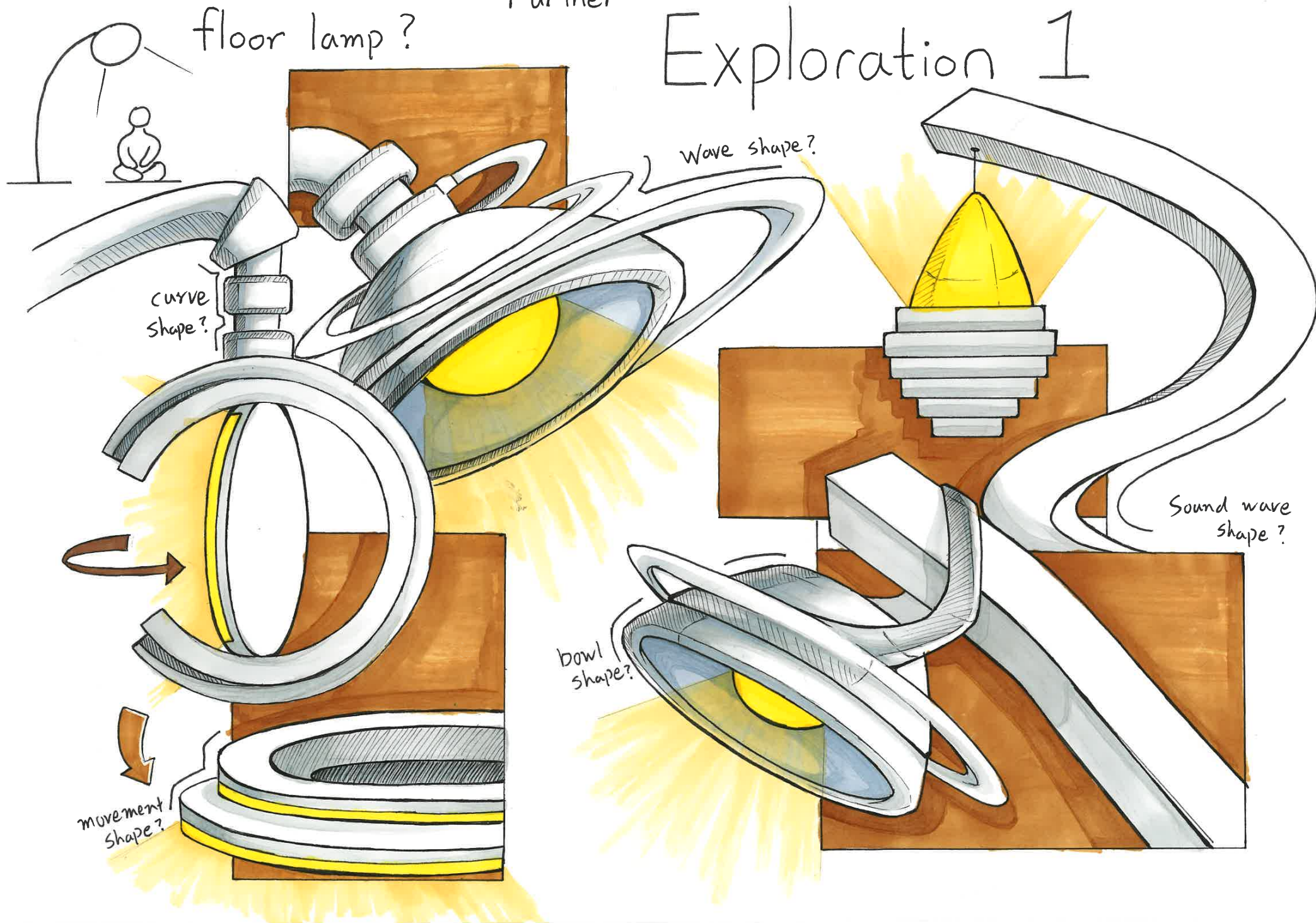
Brief

- I will design a light product to be used in meditation experiences for School students and teachers.
- The design must have safety, practicality, e.g. enough people in a certain space, functionality and comfort, e.g. the user can comfortably enter meditation through the light product, and mobility.



Further

Exploration 1



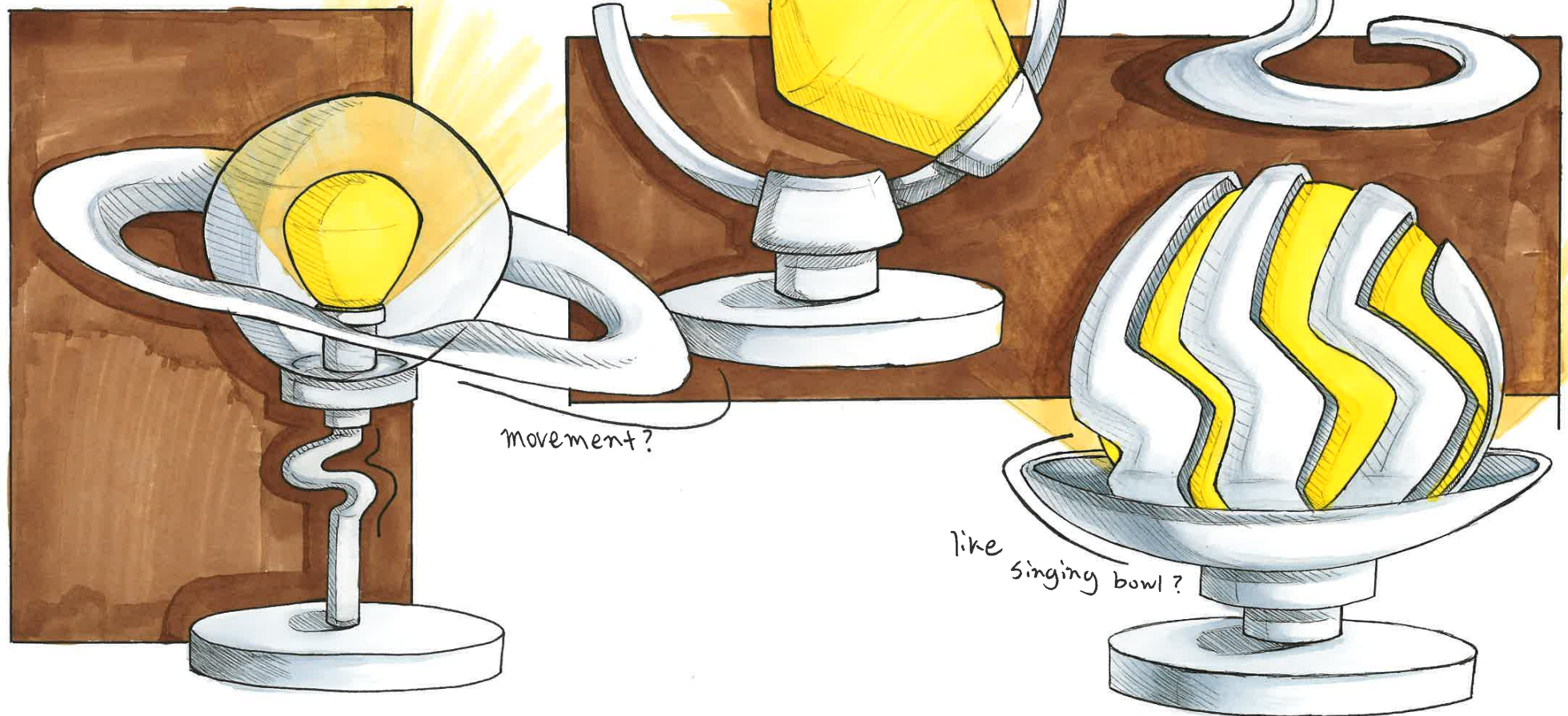
Further Exploration 2



table lamp?

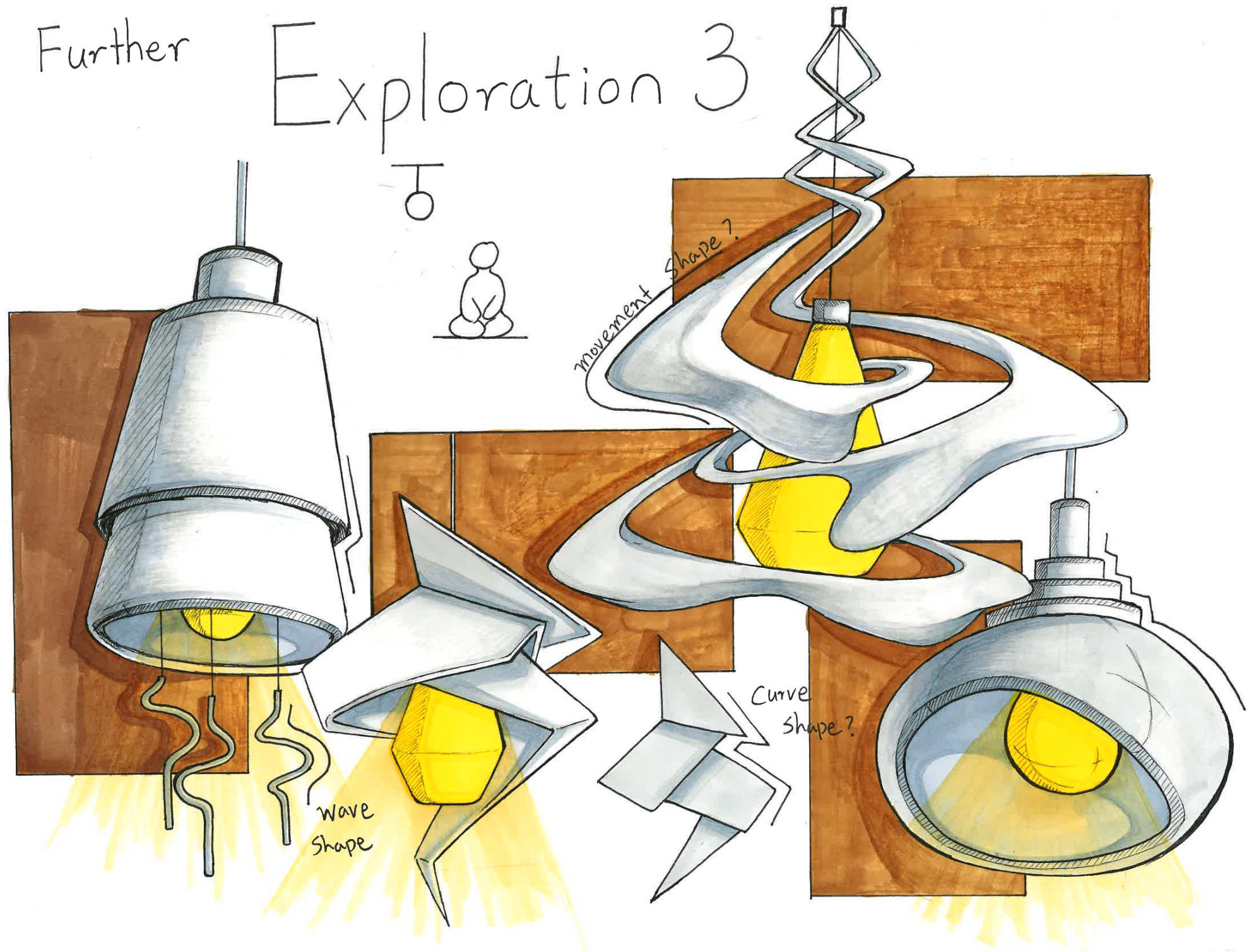
alph wave shape

Curve?



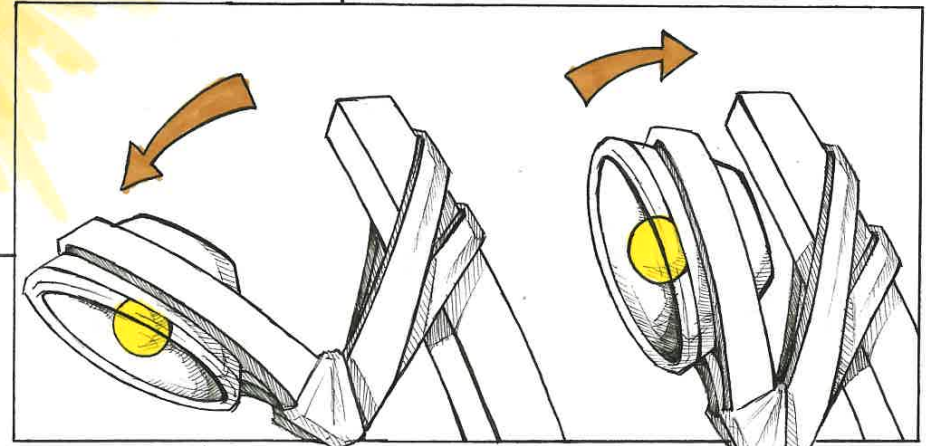
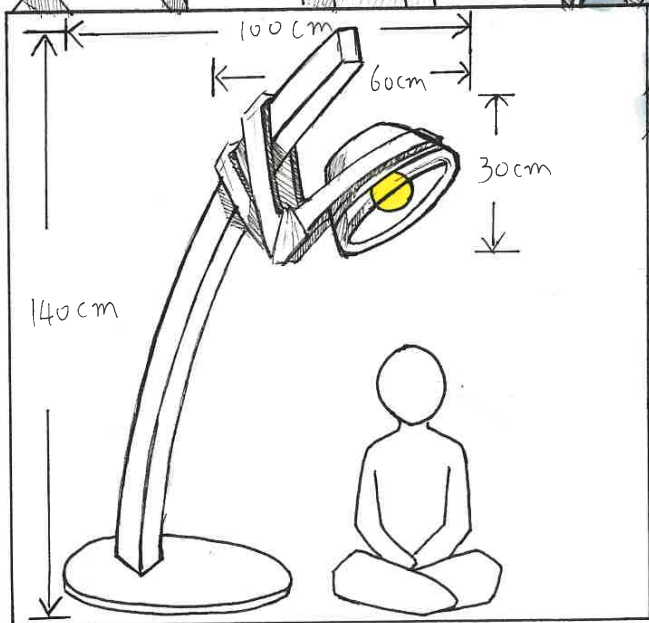
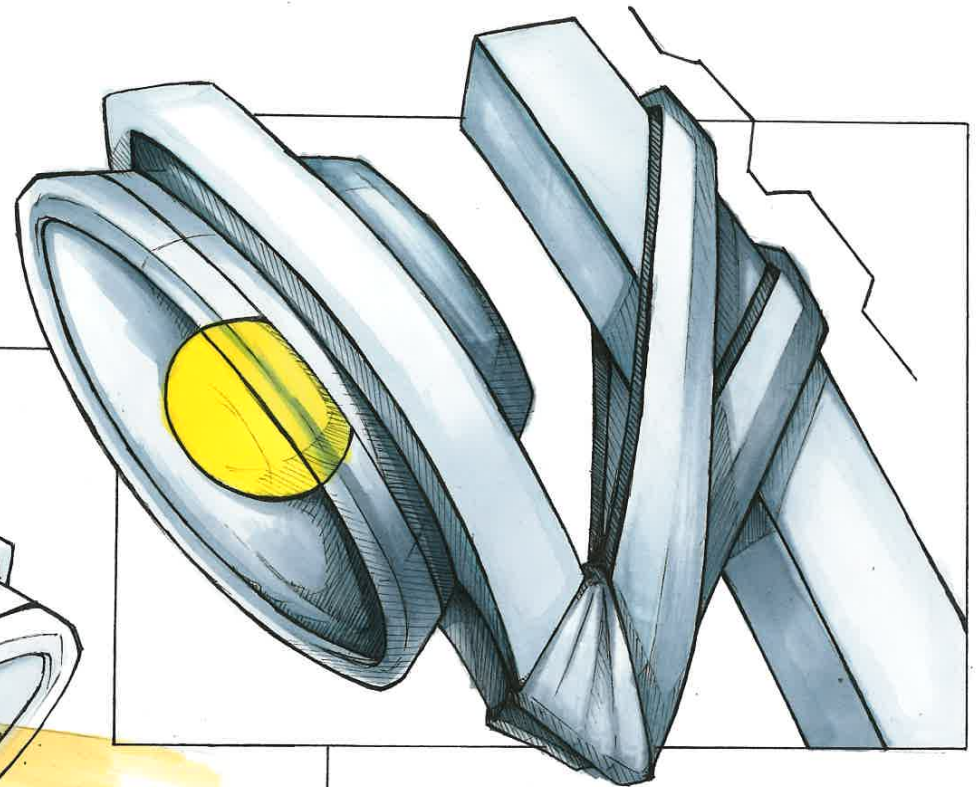
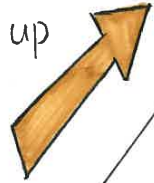
Further

Exploration 3



Concepts 1

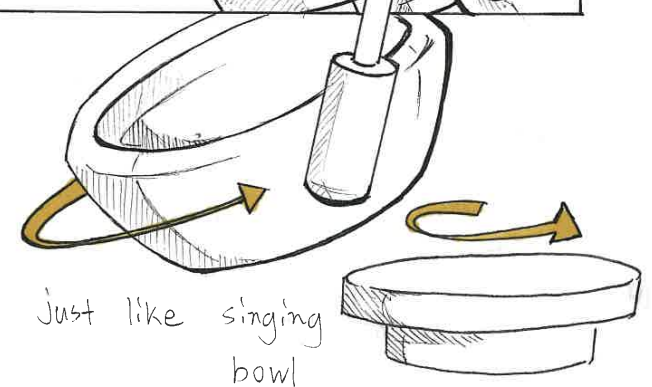
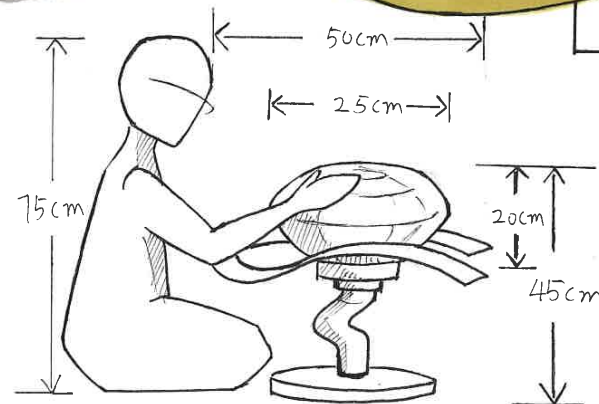
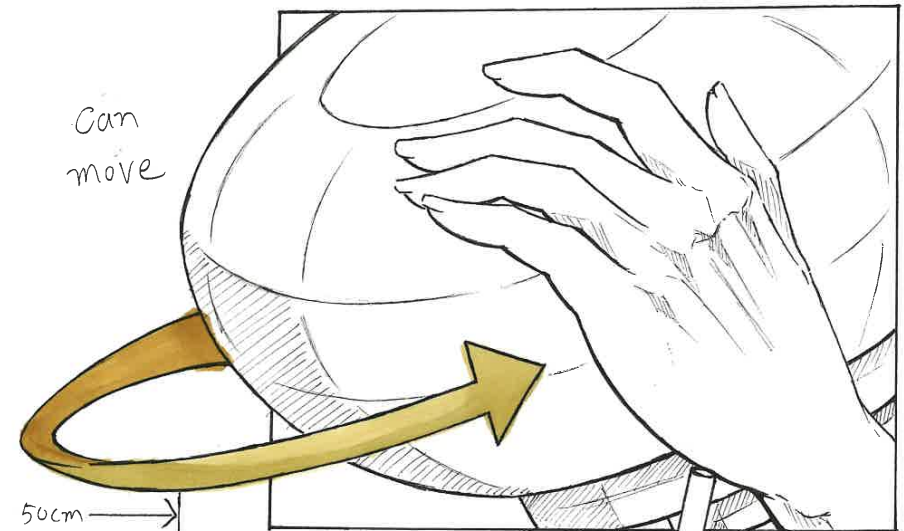
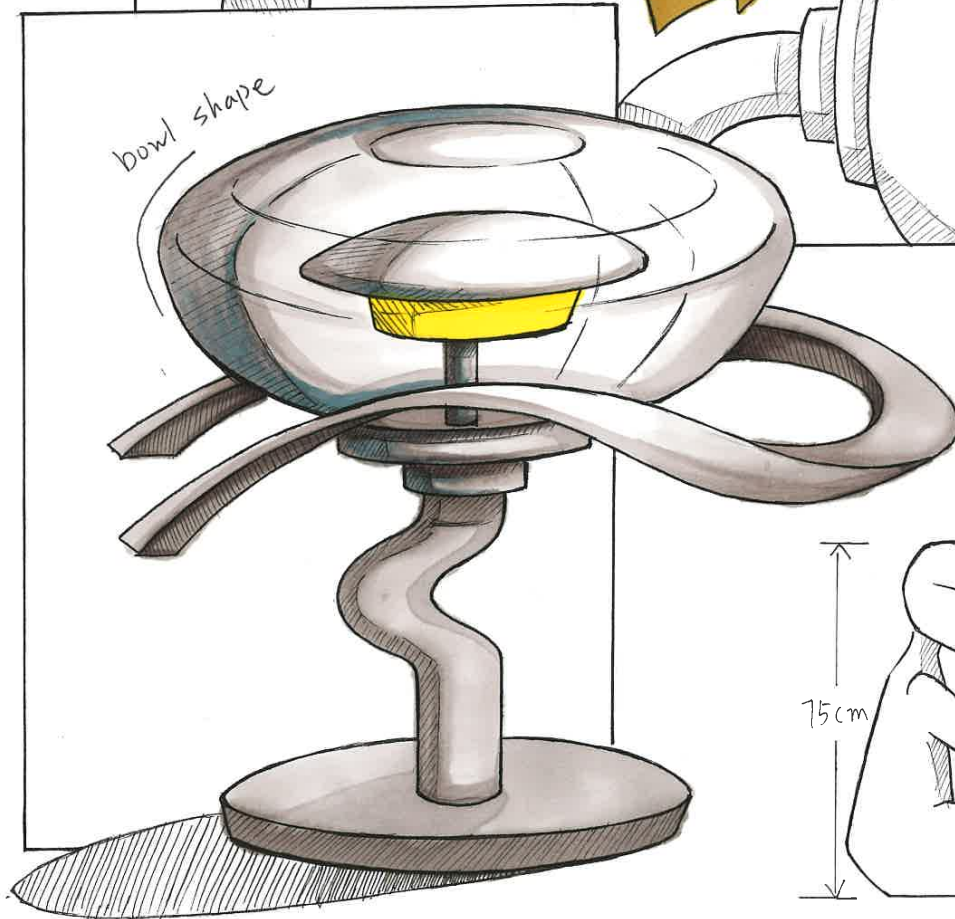
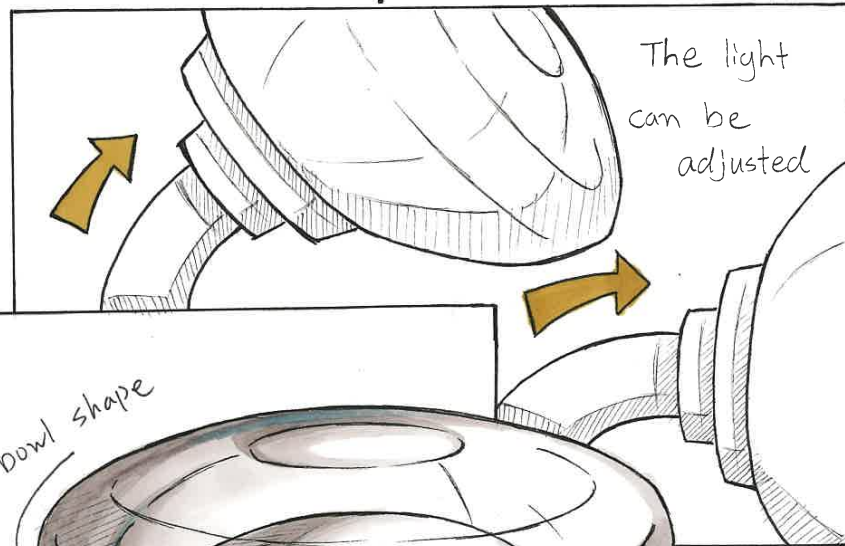
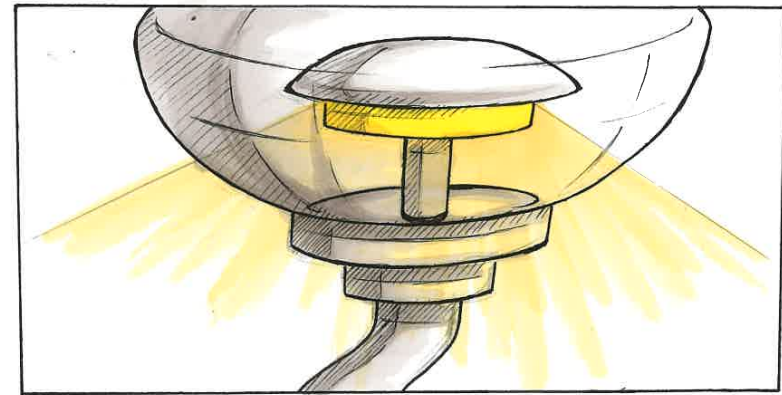
The light can be adjusted up or down.



Also can be different angle.

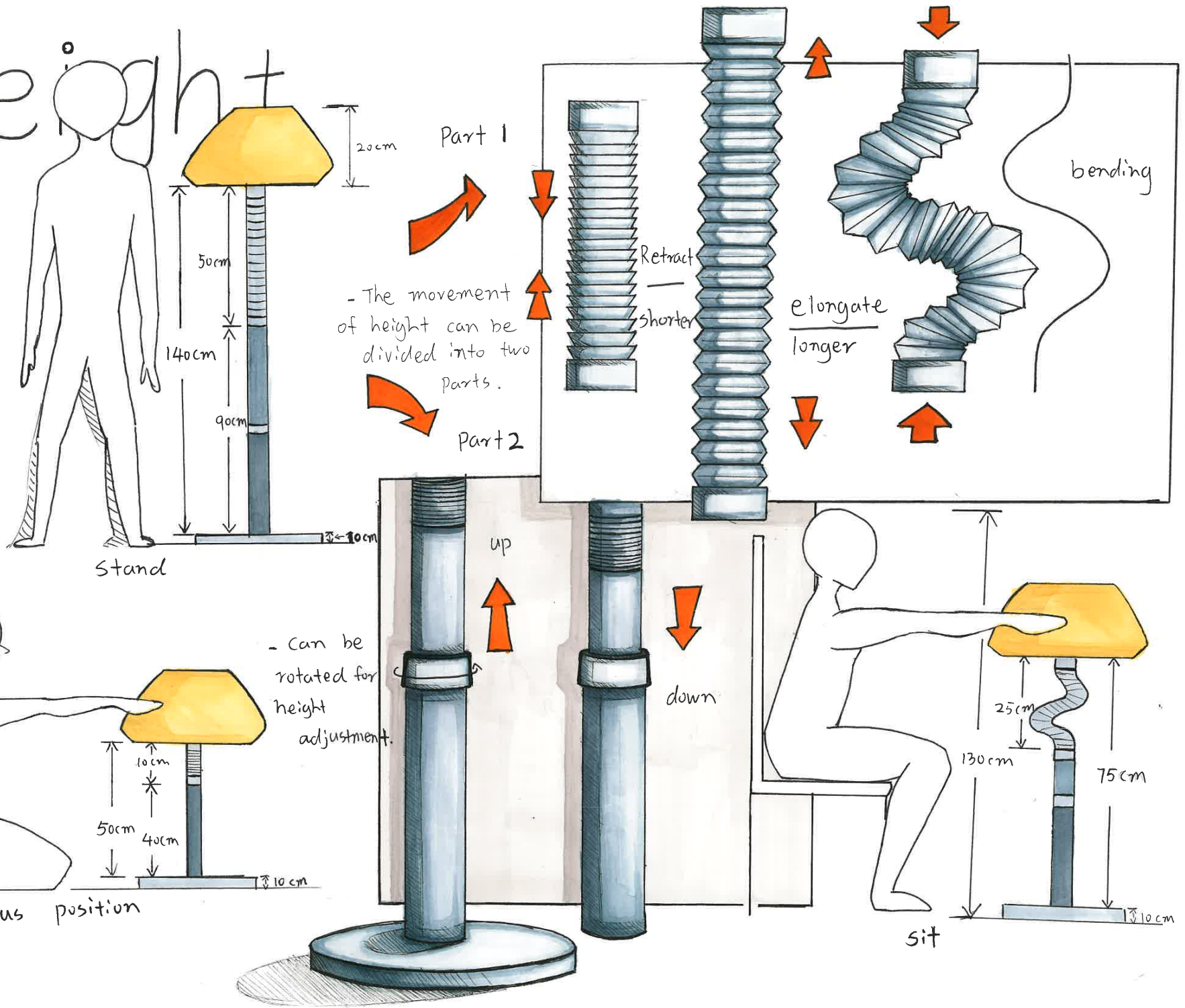


Concepts 2



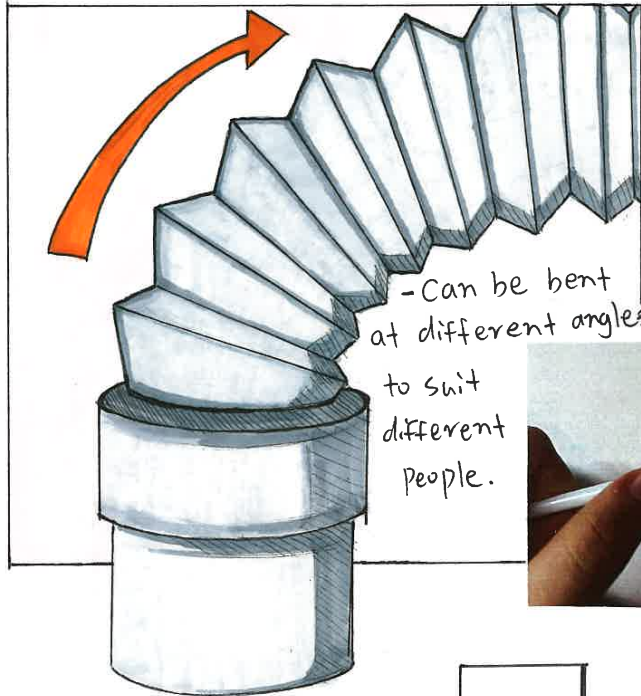
Height

- The height of the light can be adjusted significantly to suit the students and teachers of different heights, while the different heights allow them to have the most comfortable light height in different positions.

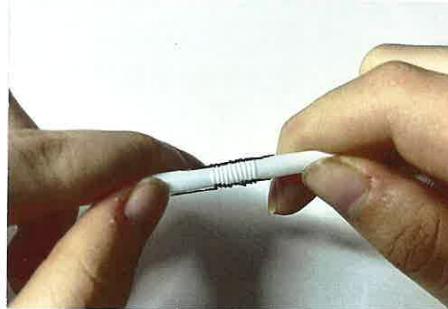


Part 1

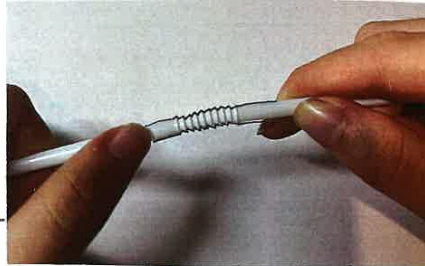
- For the first part of the light post I decided to use a design that looks like straw, because then the height can be adjusted according to the user's needs.



- Can be bent at different angles to suit different people.

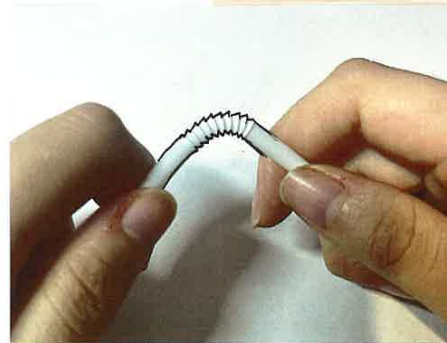
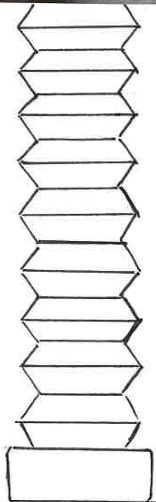
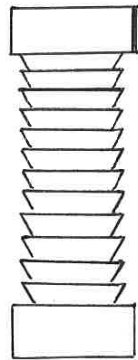


short

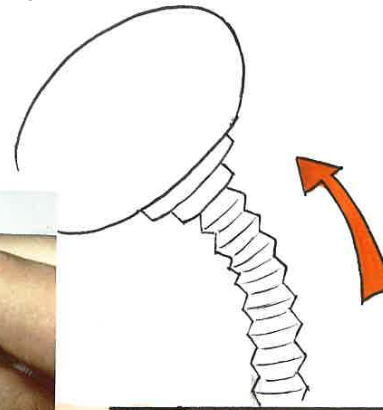


long

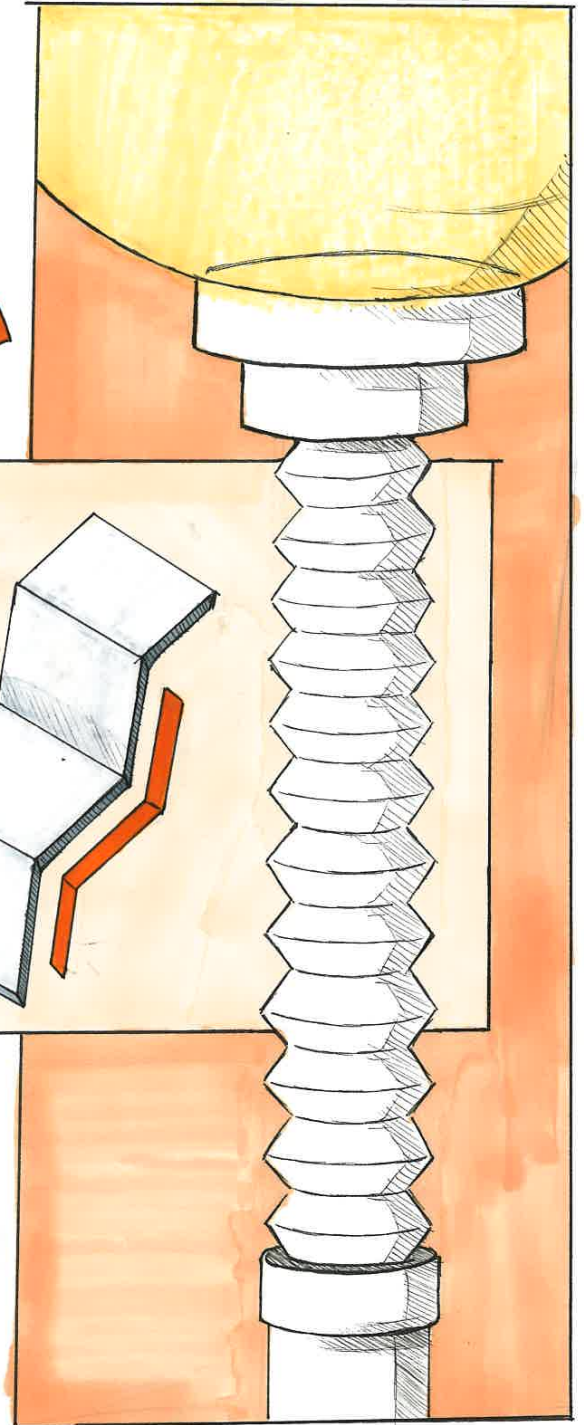
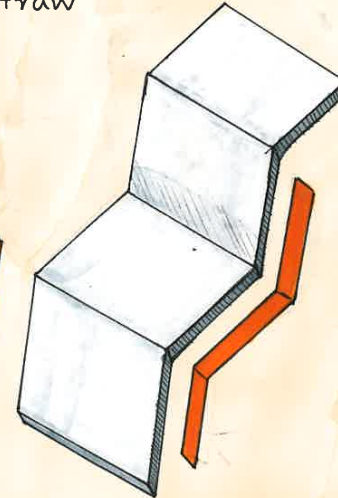
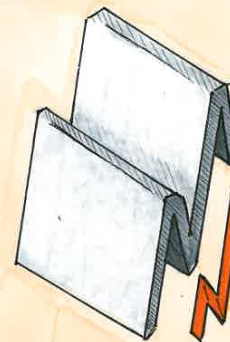
- In that point the light can be directed in different directions, making it more convenient.



curve



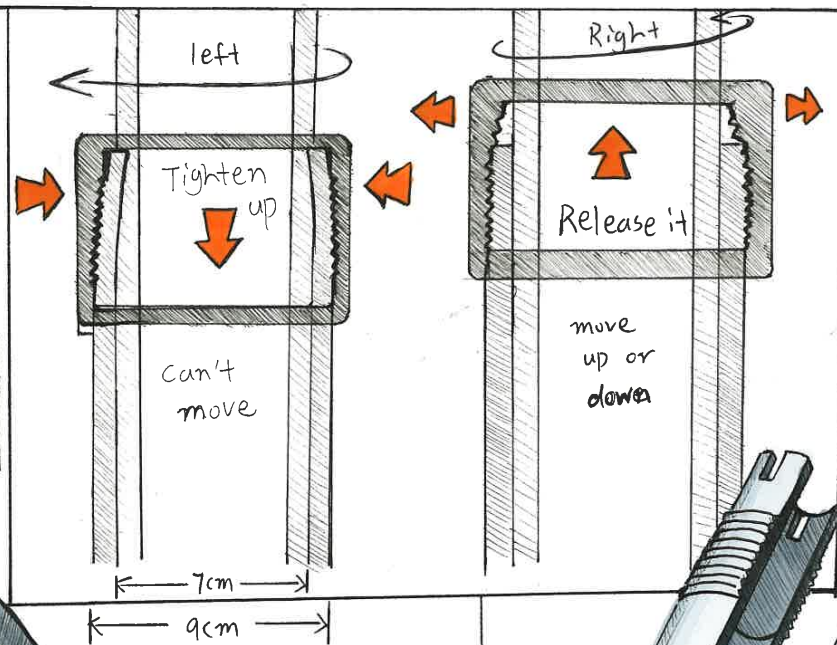
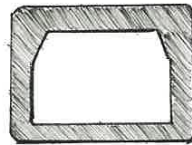
like straw



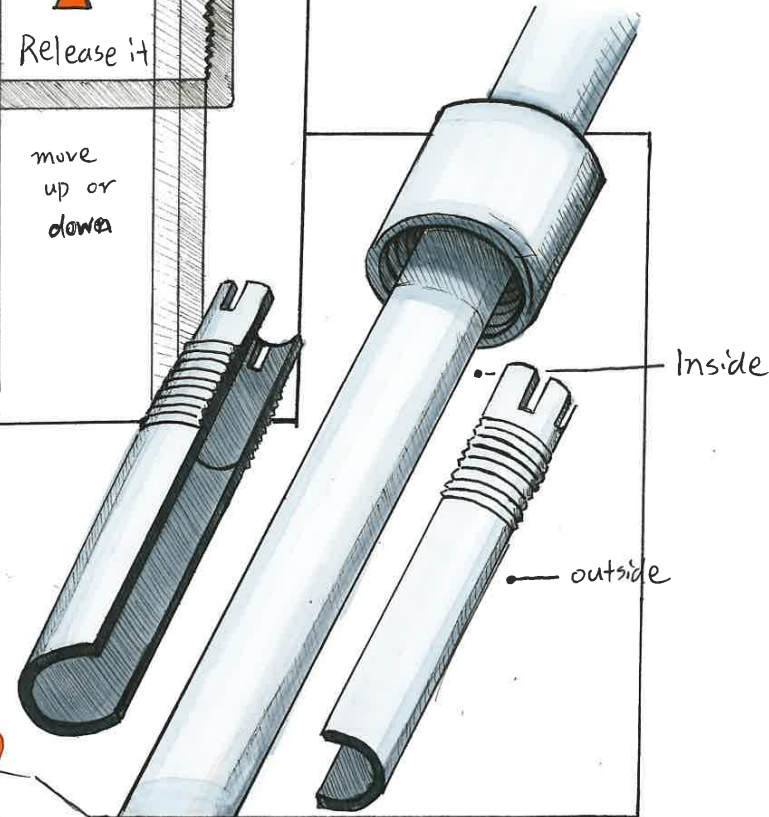
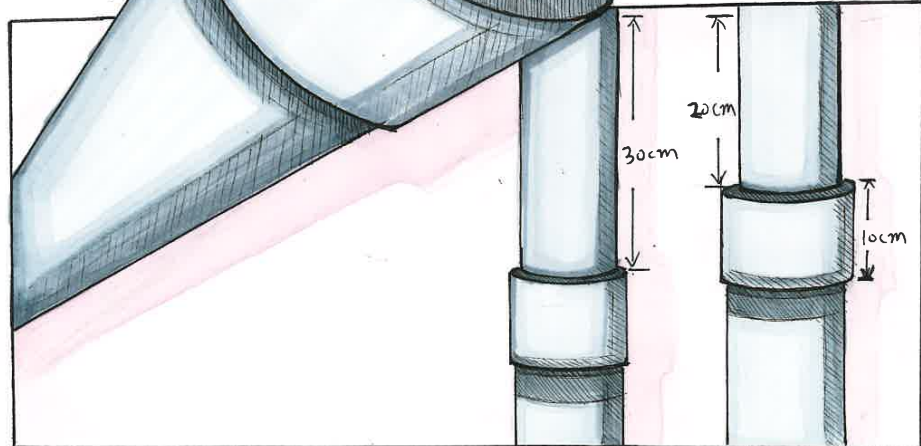
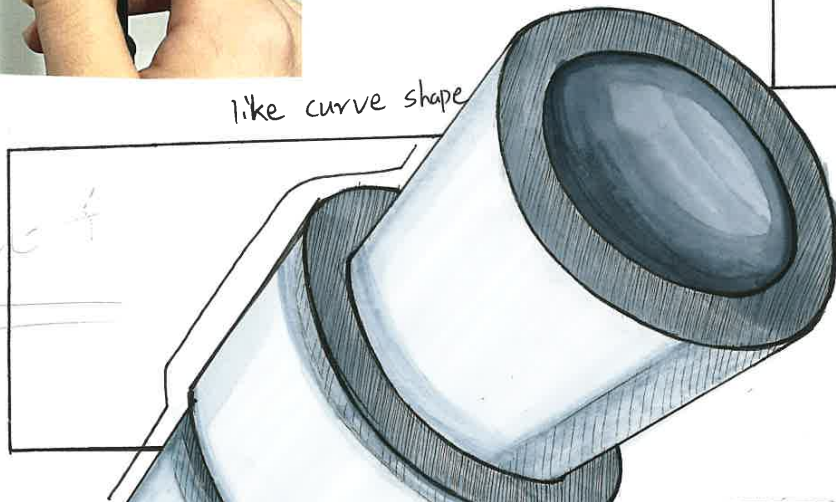
Part 2



Tightening above



like curve shape

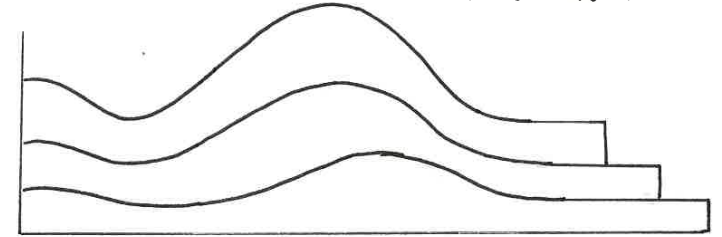
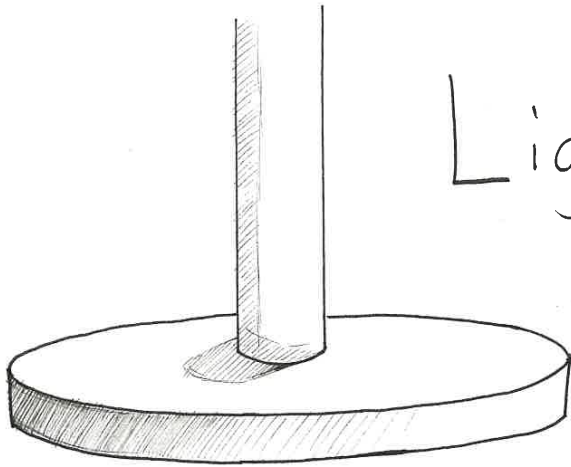


- Adjust the height of the light by turning it.
more convenience and safety.

Light Base

- I decided to use singing bowl sound wave to design light base.

- From the side it look like an undulating sound wave.

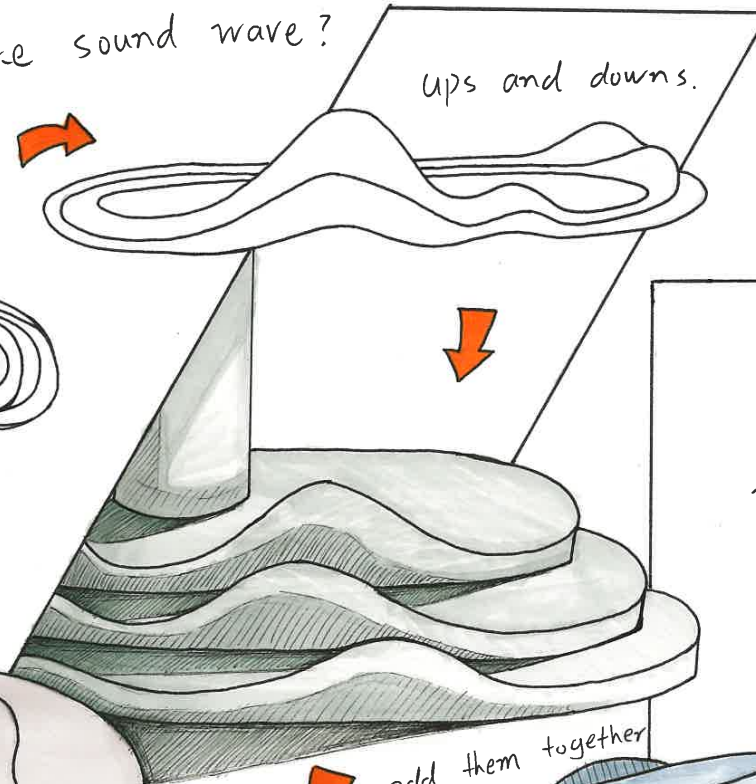
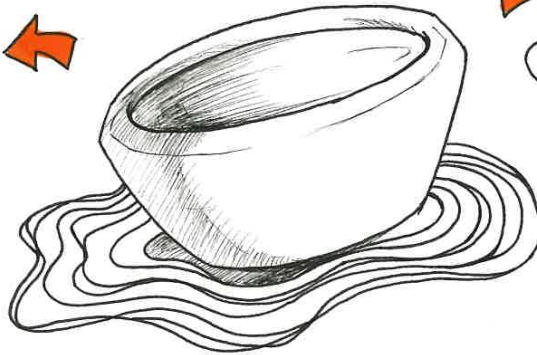
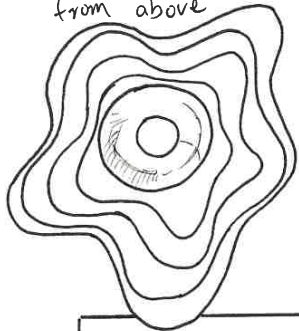


like sound wave?

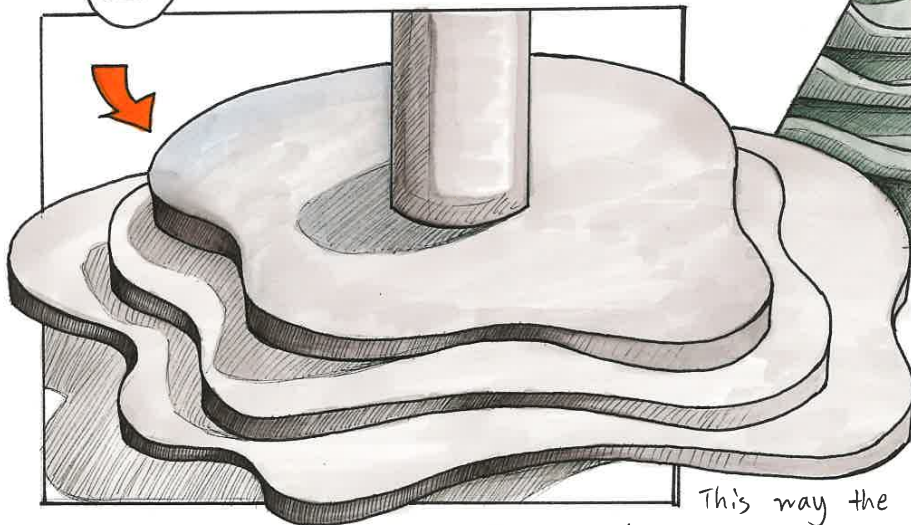
ups and downs.

side

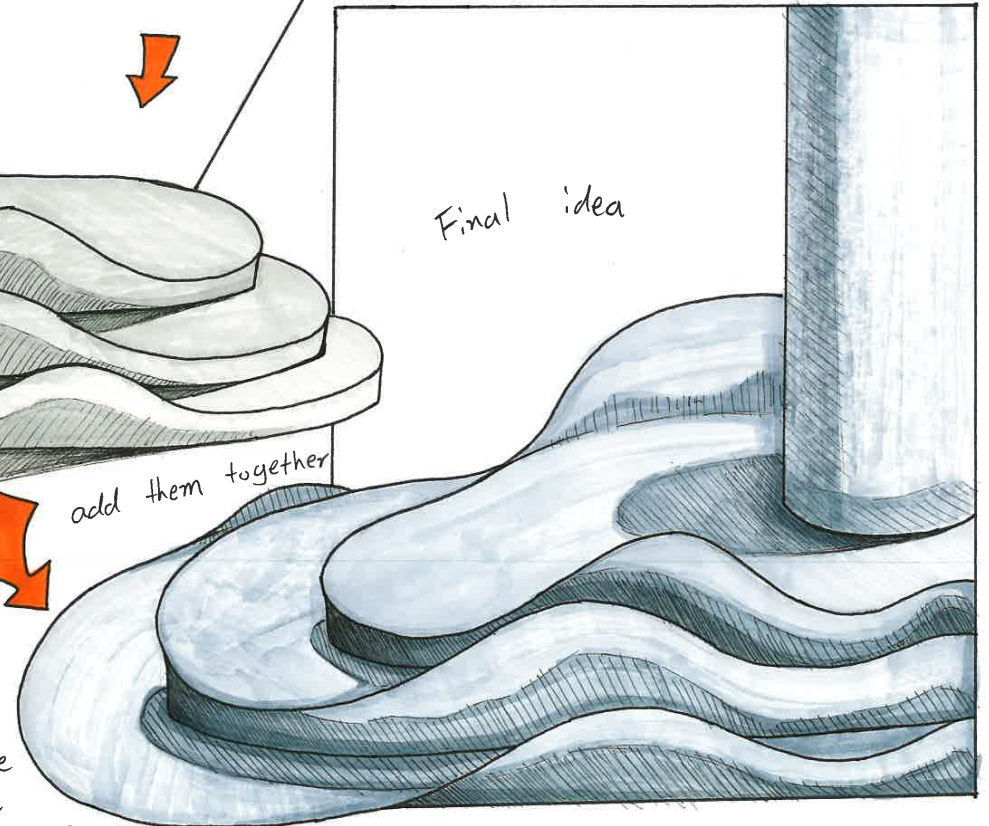
Flat?
from above



Final idea



add them together



This way the base of the light looks like a sound wave spreading outwards when viewed from above, and the lampshade like singing bowl.

Electric Cables

- be safe
- flexible
- extendable
- not easily broken

- like
spring

Because the
lamp post can
be moved low
and high.

Stretch

So it also need
to stretch.

Safety

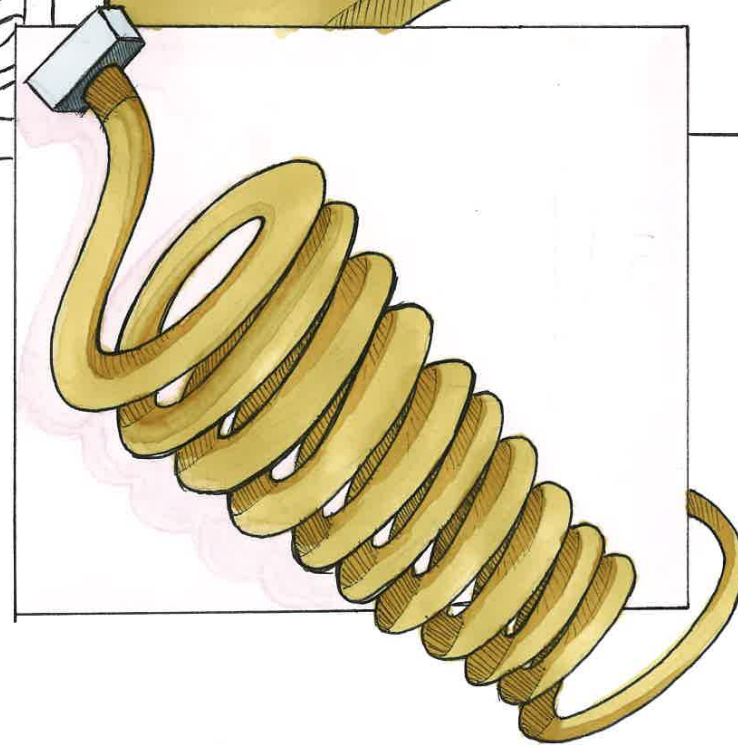
Insulation

Conductor

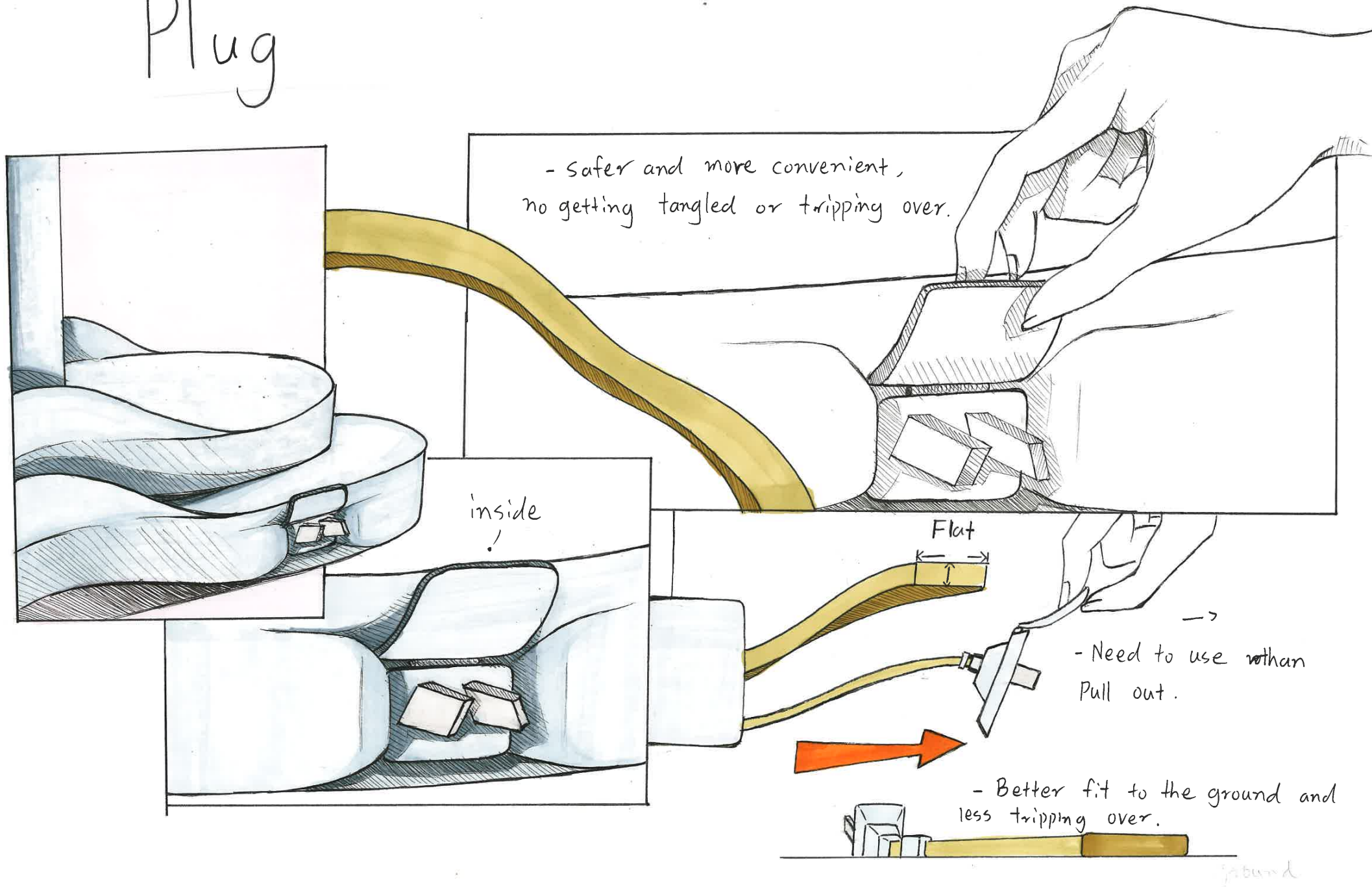
The outer rubber is
very thick

Rubber
outer

The exterior
is rubber so that
it is flexible and
will not split or
break.

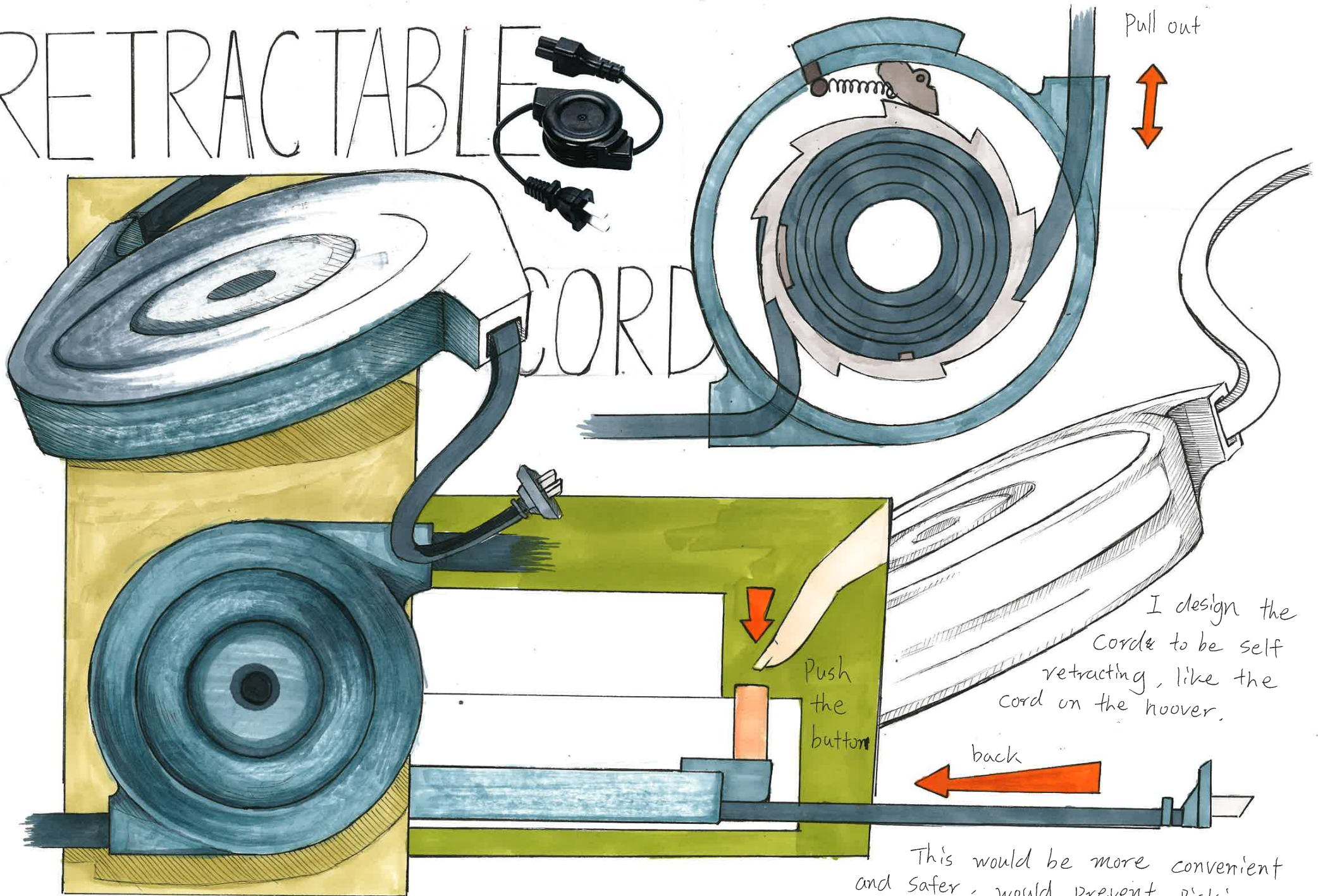


Plug



RETRACTABLE

CORD

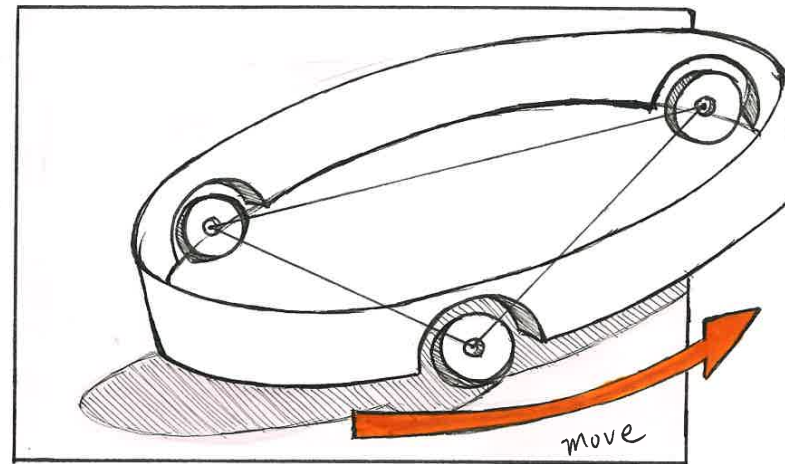
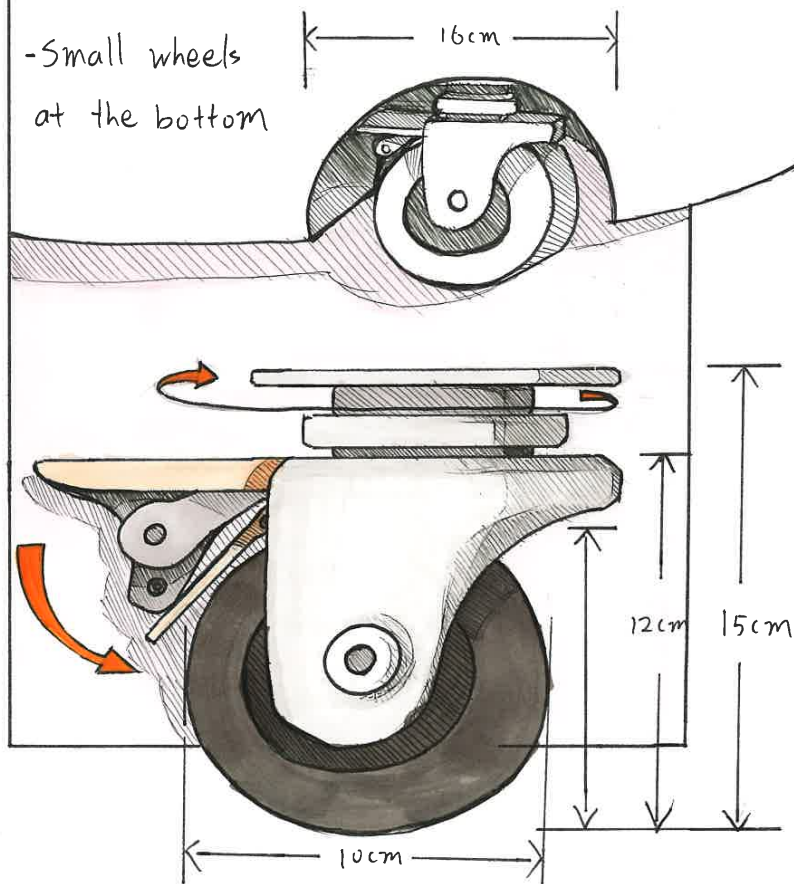


This would be more convenient and safer, would prevent picking up the cord and some hidden dangers.

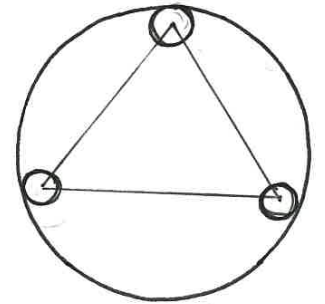
Wheels

I decided to put three wheels on the side of the lamp base, so that it can be easily moved around.

- Small wheels at the bottom

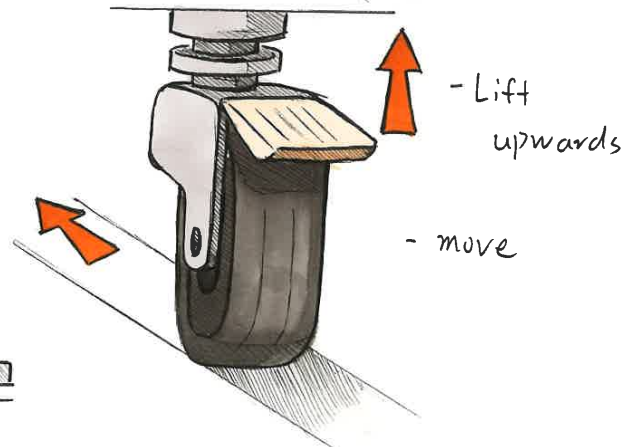
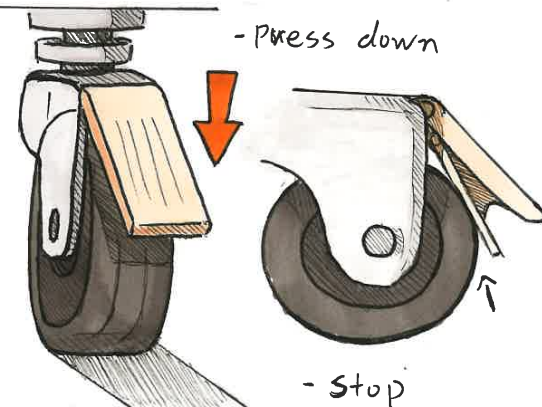
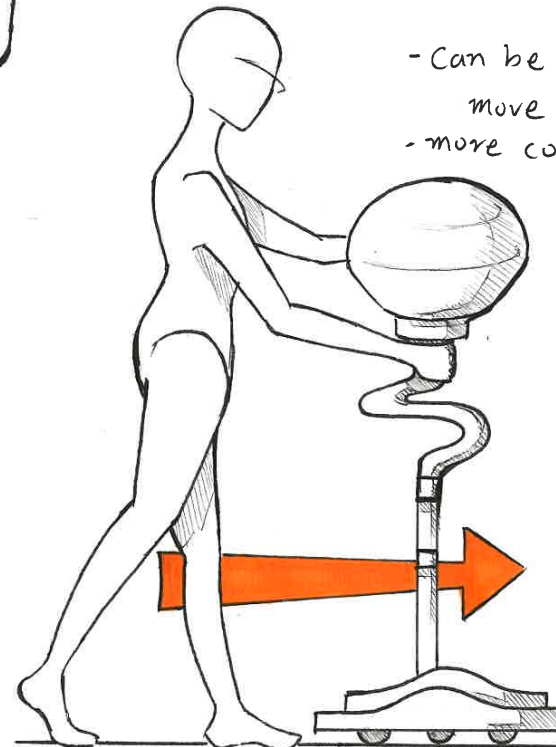


- The triangular shape is more stable

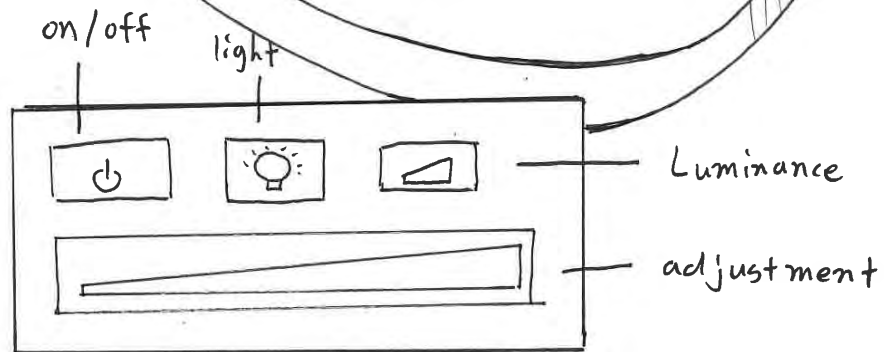
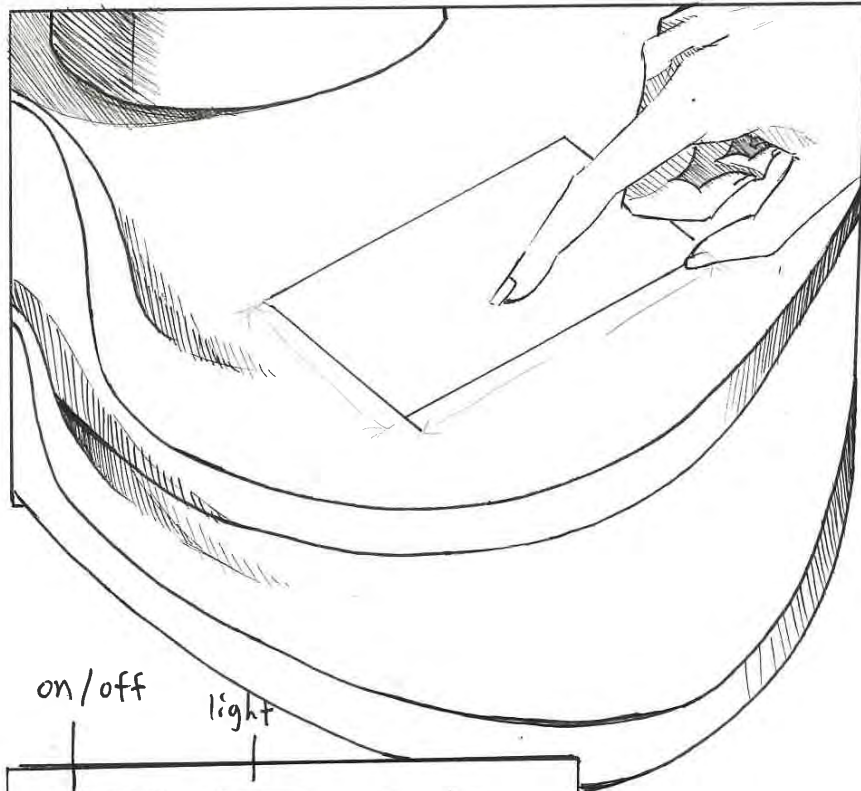


- Security
- stable
- Movable
- immovable

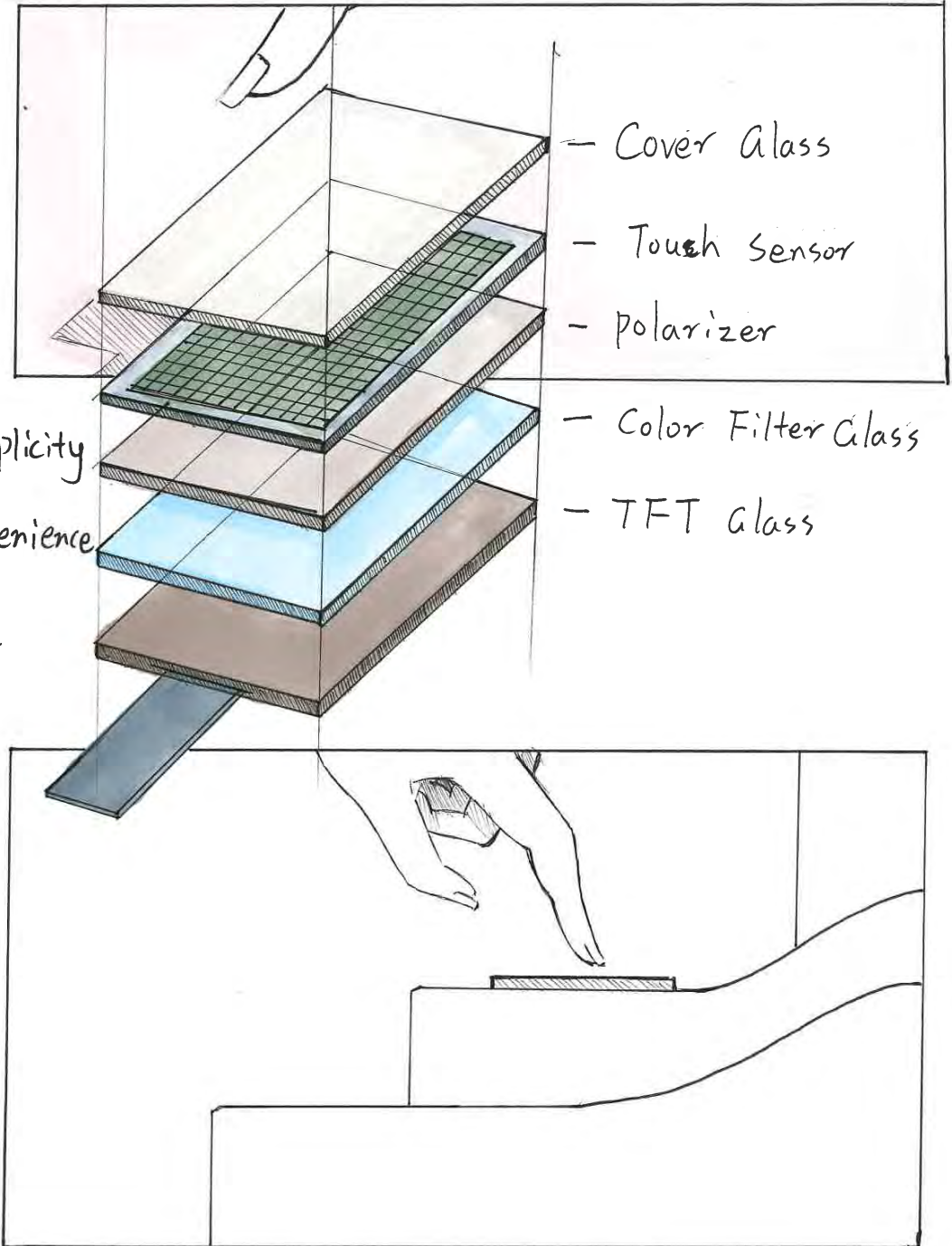
- Can be move
- more convenient



Touch Control



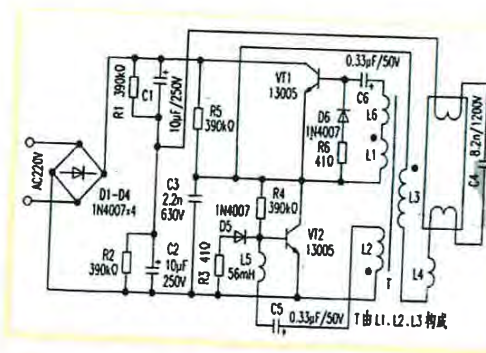
- Simplicity
- Convenience
- Safe



- Cover Glass
- Touch Sensor
- polarizer
- Color Filter Glass
- TFT Glass

INSIDE

wire



Circuit diagram

battery

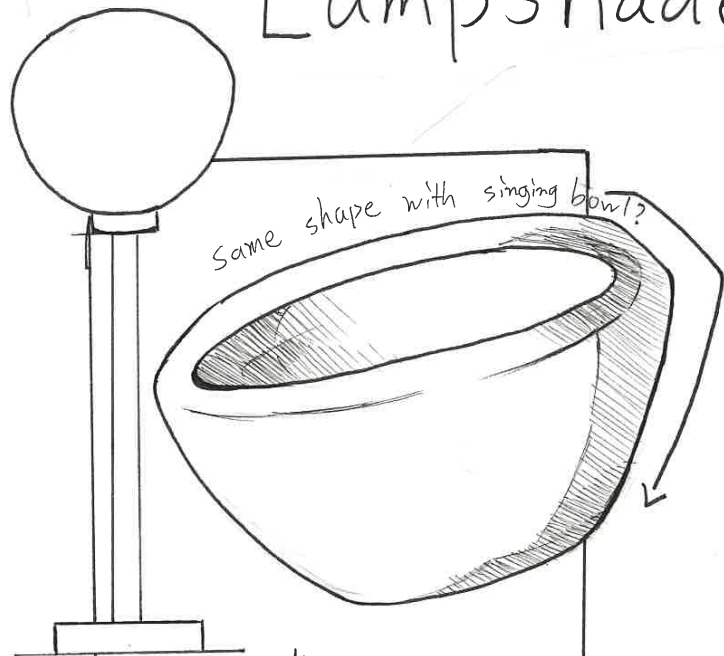
Touch Bar

Circuit board

control board

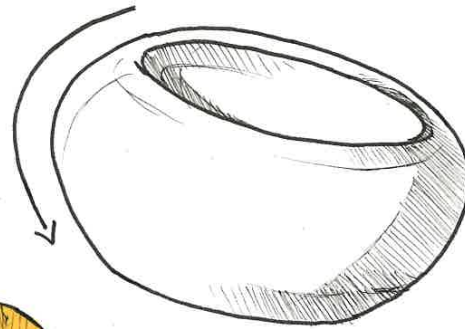
Retractable cord

Lampshade



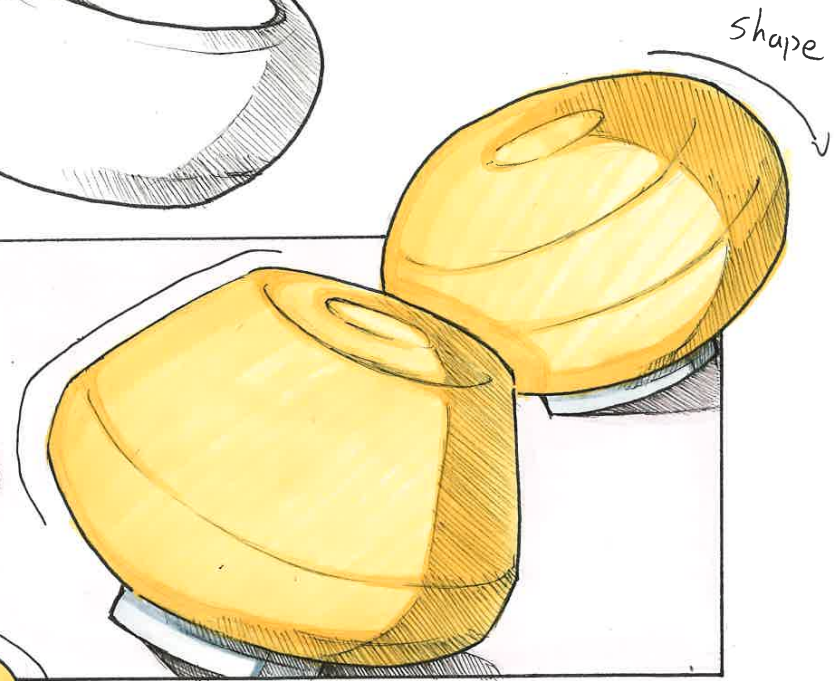
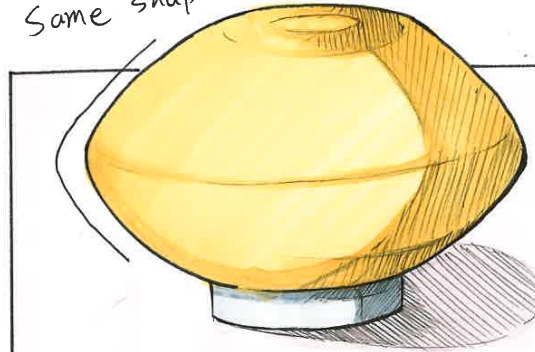
same shape with singing bowl?

- different
singing bowl
shape.

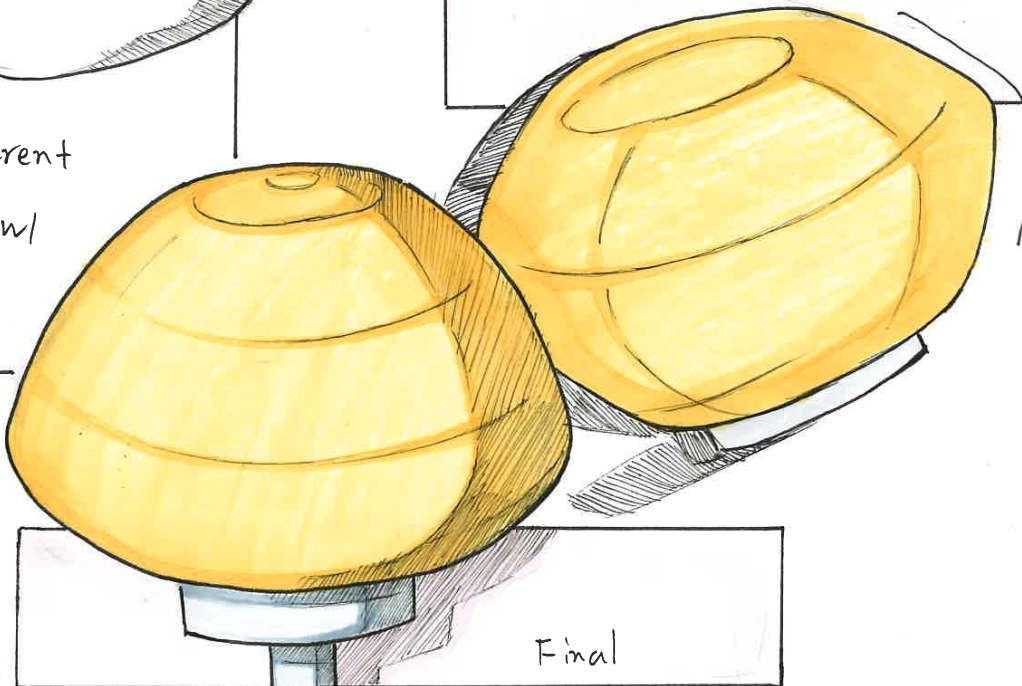


like singing bowl?

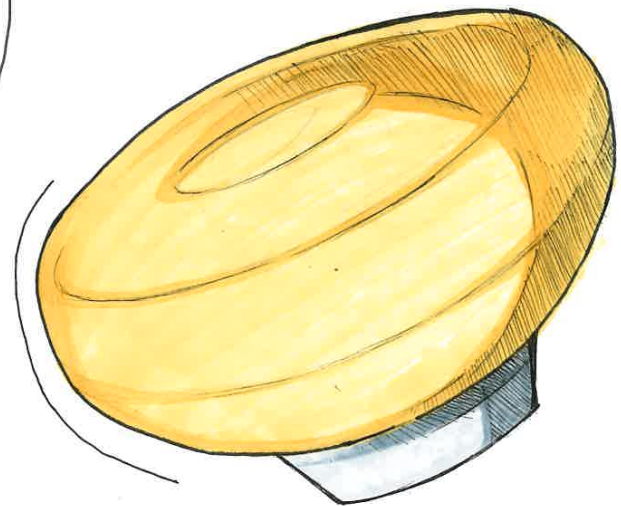
same shape?



shape



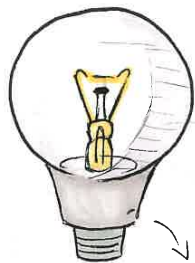
Final



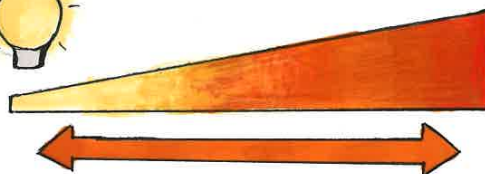
LED

LIGHT

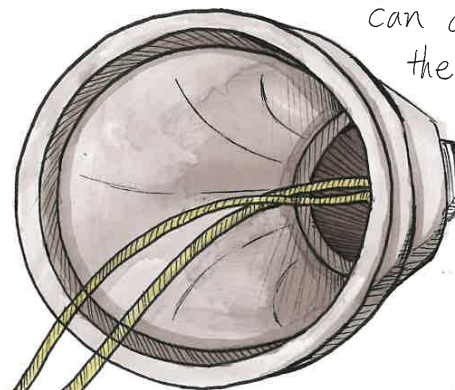
I use LED light is because it is more energy efficient compared to traditional bulbs, is also have a longer lifespan than traditional.



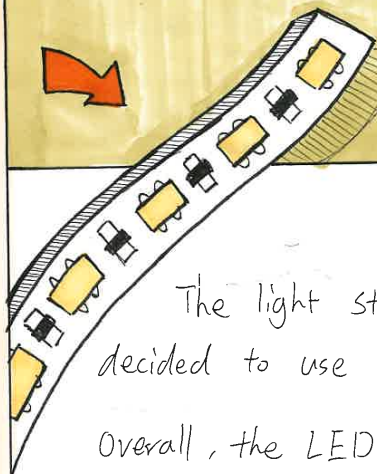
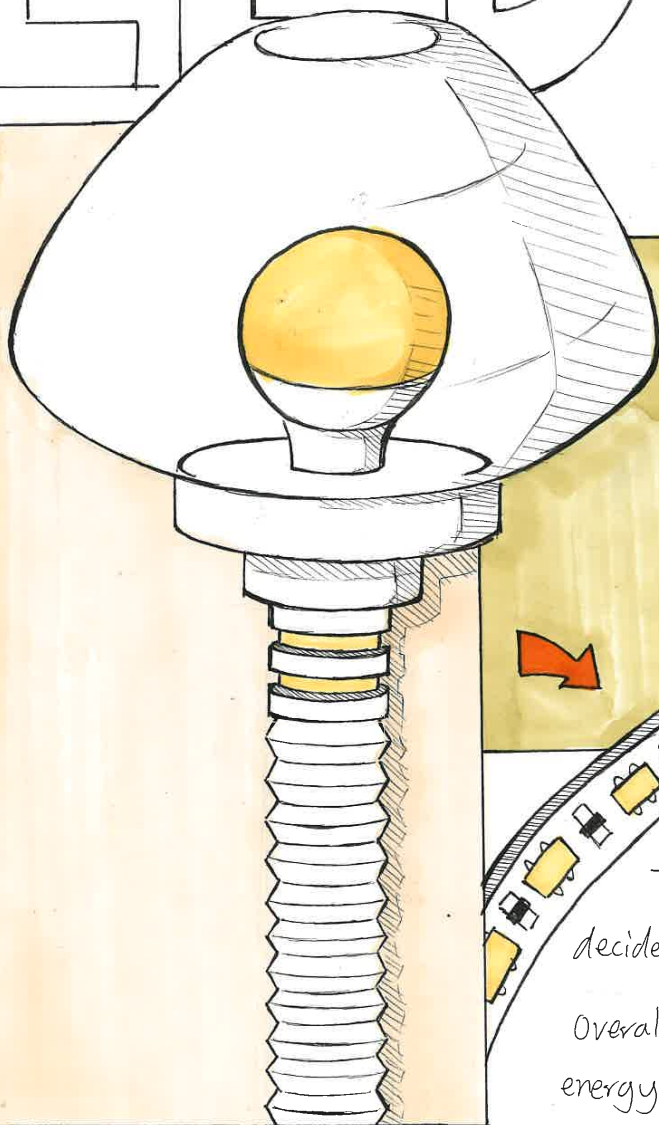
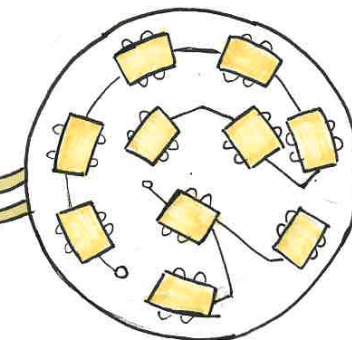
LED
Better



can adjust
the brightness



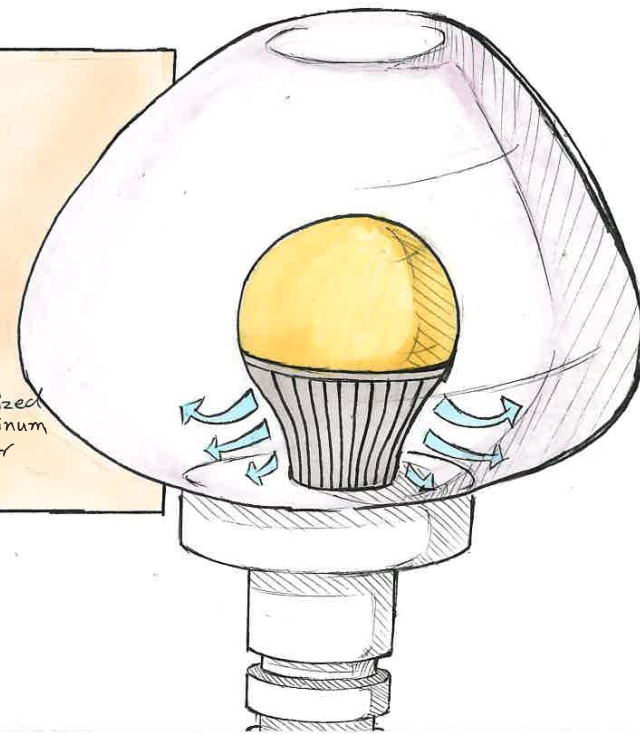
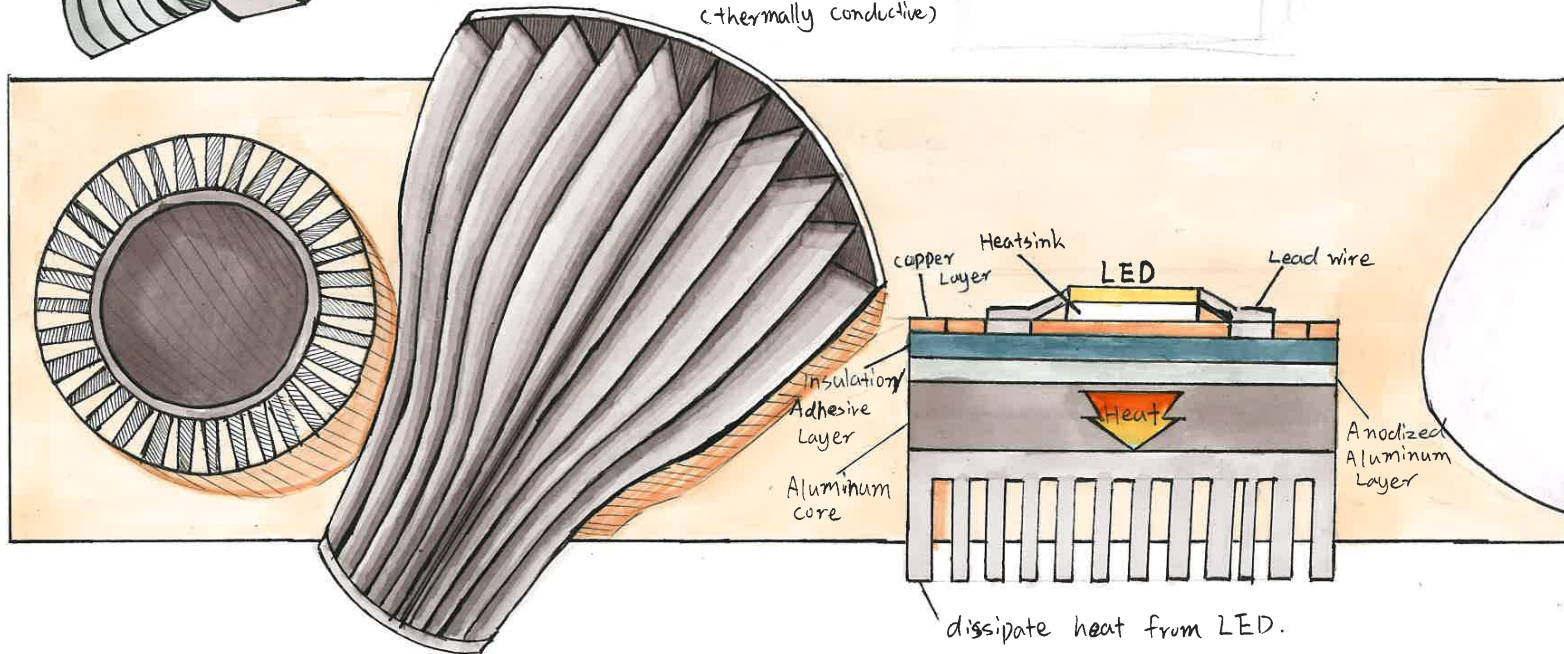
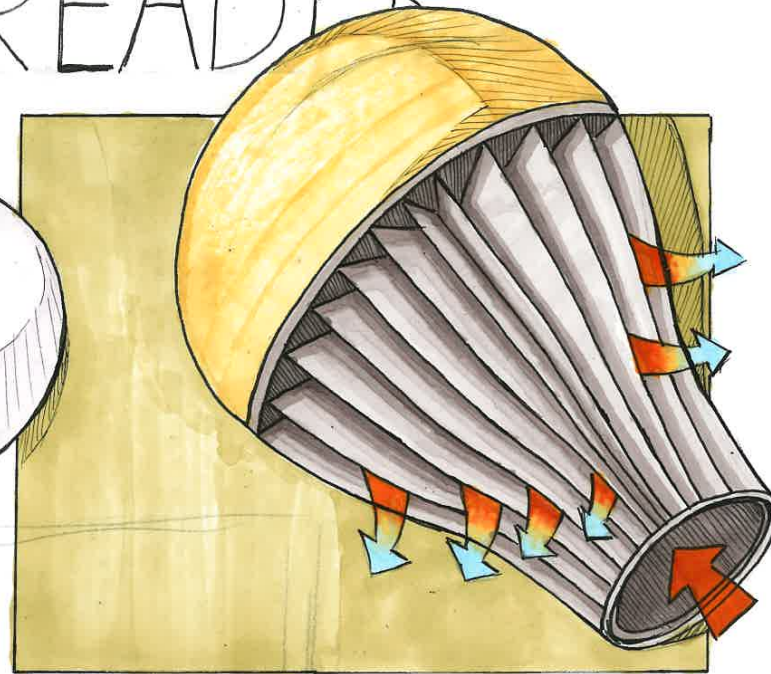
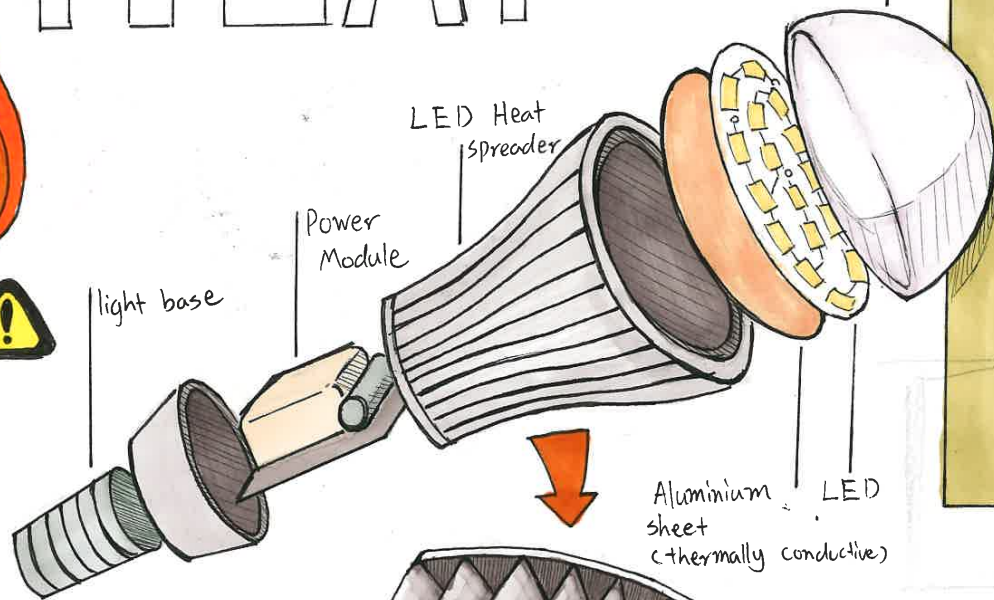
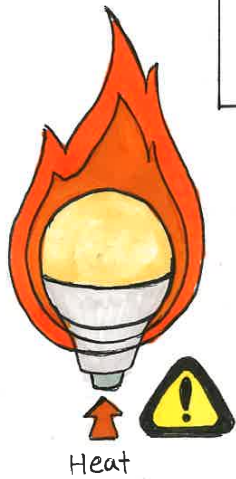
batteries.



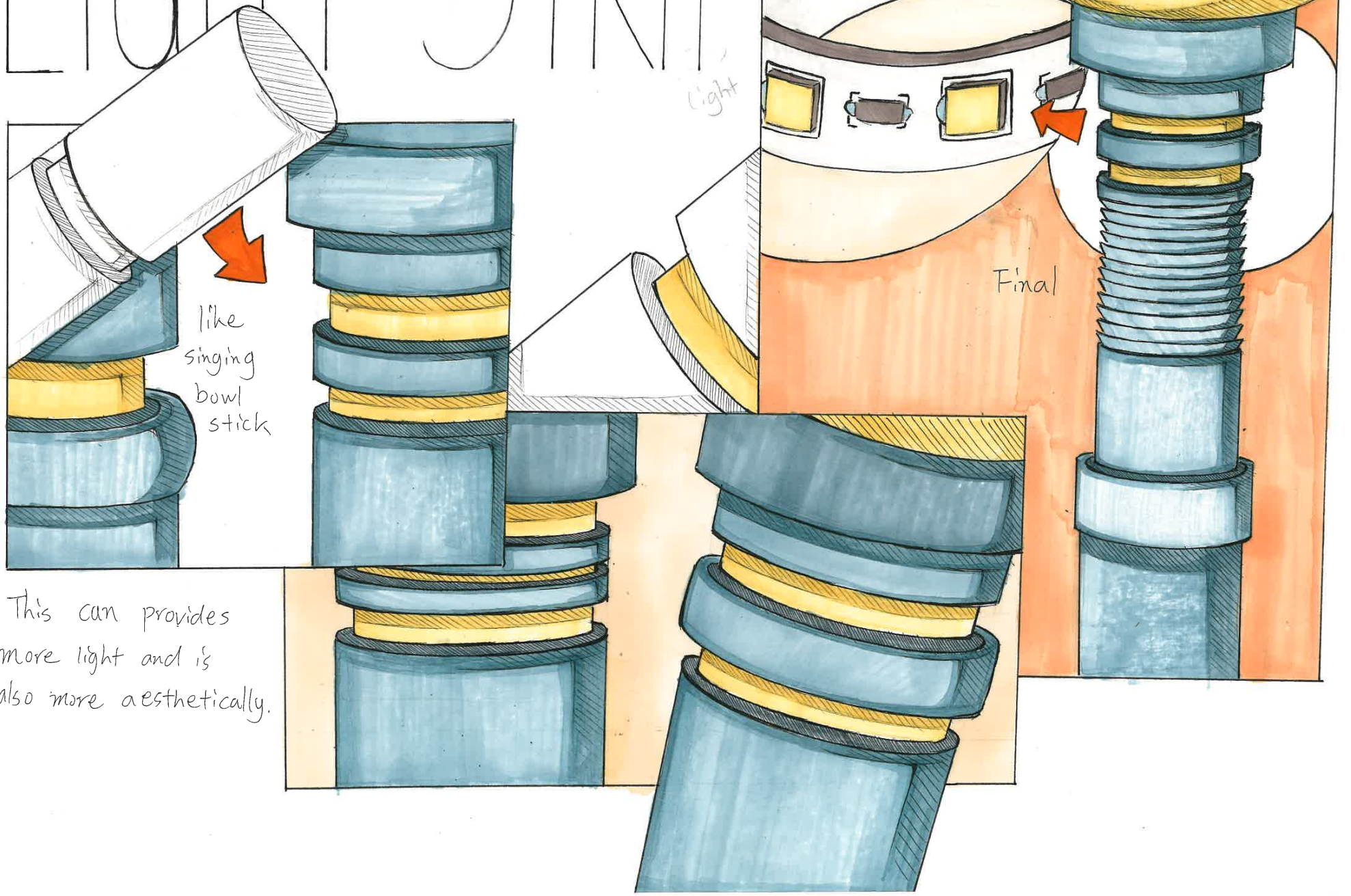
The light strip I also decided to use LED.

Overall, the LED is better for energy efficiency, longevity and maintenance costs.

HEAT SPREADER



LIGHT STRIP



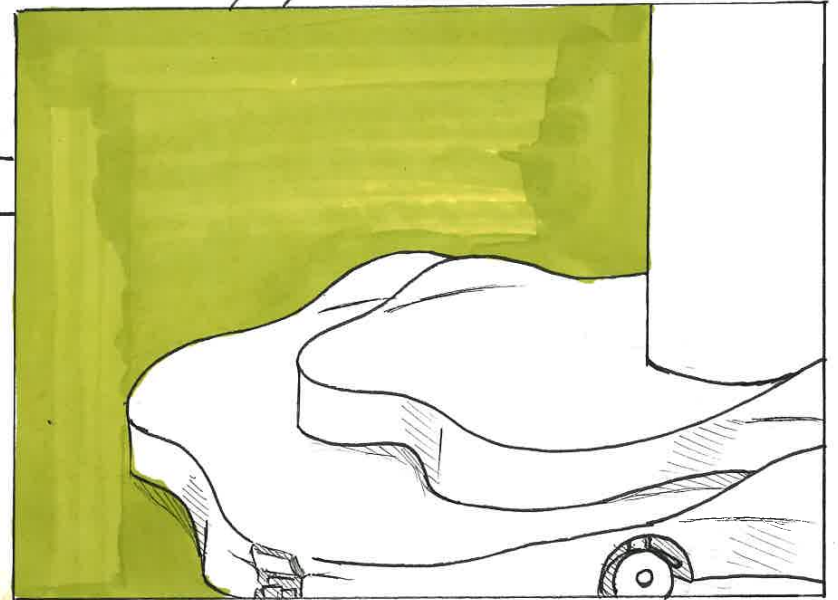
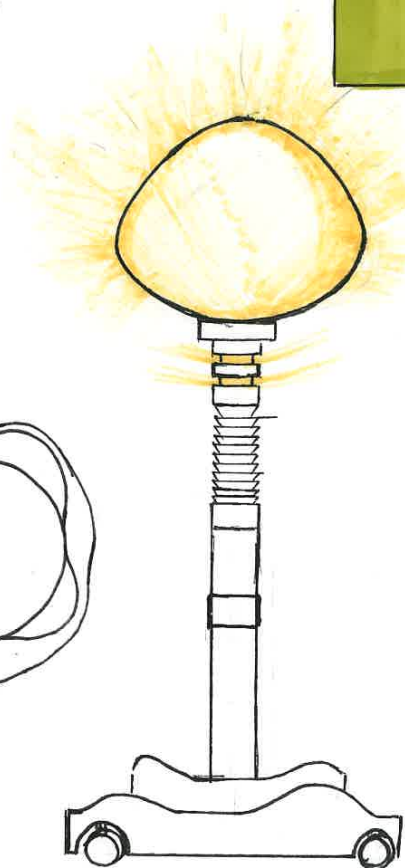
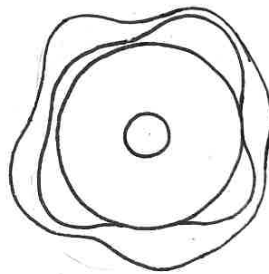
This can provides more light and is also more aesthetically.

? FINAL ?



bowl shape

crucet



But

- There's no deep connection with the singing bowl, just used the idea in the out shape.

OR. Sound Meditation to Light Meditation ?



What is Light Meditation ?

Light meditation is a meditative practice that focuses on visual perception and light, and it has existed for thousands of years in different cultures and religious traditions. Light meditation can include observing light in nature, candle flames, rainbow beams, or other light sources to direct the meditator's attention. This article will explore the definition of light meditation, how it is practiced, and the various benefits it can bring.

Light meditation offers a unique visual experience that enhances perception, awareness and appreciation of beauty. Also different coloured light sources are believed to be associated with different emotions and energies and can therefore be used to tune into emotions and balance the body's energy.



Light Meditation

Benefits

Depth of Meditation: light meditation can help people get into a deep meditative state more quickly. Soft lighting can help with the state of concentration and meditation, making it easier to quiet the mind.

RELAXATION AND STRESS REDUCTION: Lighted meditation can help reduce anxiety and stress. By focusing on the fading light and colours, people can reduce their emotional load and feel calmer and more relaxed.

Improve concentration: Light meditation can train concentration and focus. By focusing on the changing light, people can increase their sensitivity to detail, which helps to improve concentration and focus.

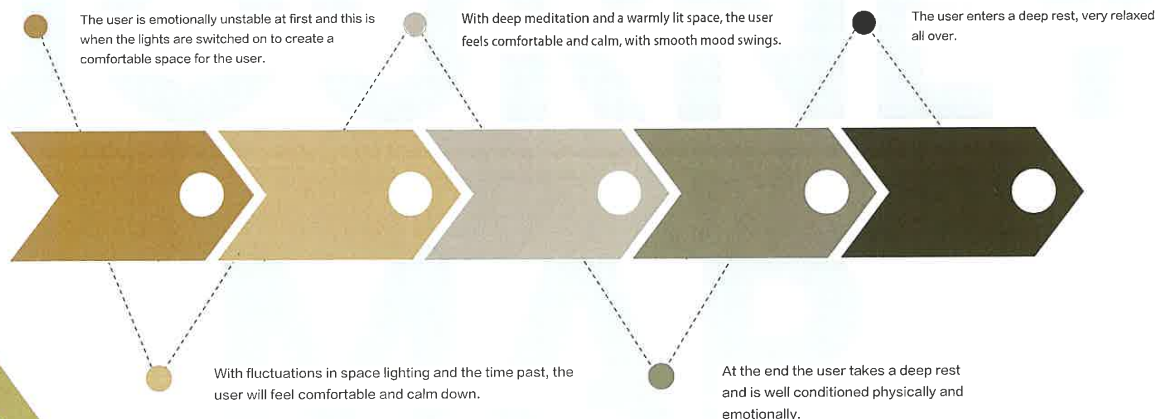
Improved sleep: Light meditation performed at night can help improve the quality of sleep. Specific types of lighting, such as gradual warm tones, help to relax the body and create more favourable conditions for falling asleep.

Mood Enhancement: Light meditation can improve emotional states. Different colours of light may be strongly associated with different emotions, so it is possible to enhance emotional states by choosing the right colours.

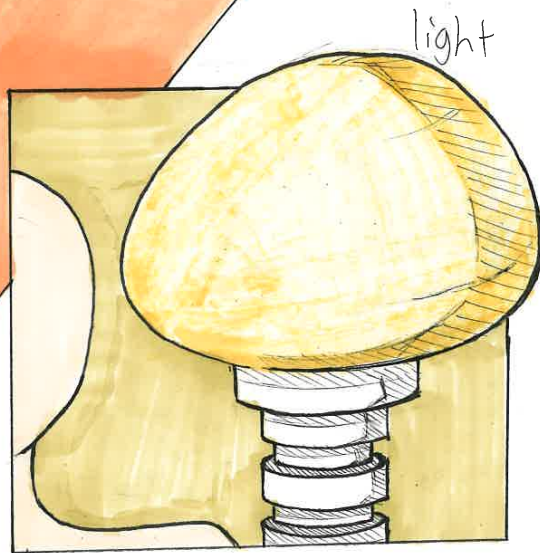
Physical and mental health: Light meditation helps to balance physical and mental health. It promotes harmony between the body and mind and helps to improve overall health.

Creativity Boost: Some people find that light meditation can stimulate creativity. It can help people explore their inner world for inspiration and innovation.

CUSTOMER JOURNEY MAP



Sound wave to Light wave?



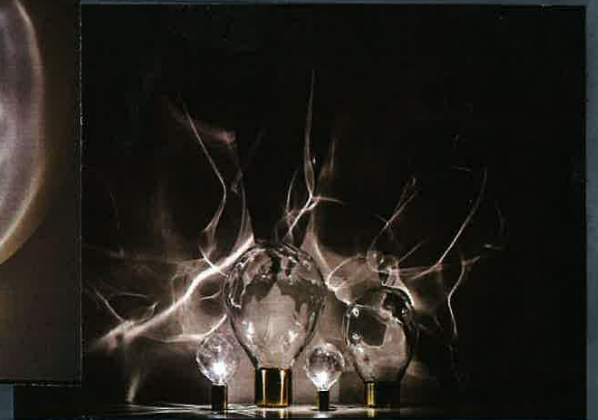
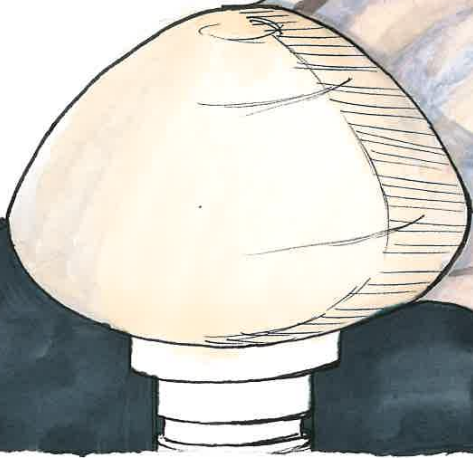
+



if add both them together,
what's going to be?

=

Sound Wave Visualization



How To Make



Ripple design for glasses?



round sound wave



I try to create light waves from household objects, And tried two different kinds of light waves to pick the best one. It is also very interesting to express the diffusion of sound waves through the form of light spots, so that we can see and feel the sound waves directly.

Use fresh-keeping bag?



sound wave



By shining a light through the glass, it will reflect a spot of light that spreads outwards, which is the same as the round sound wave.



Search images



Light Wave

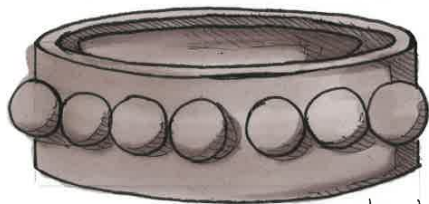
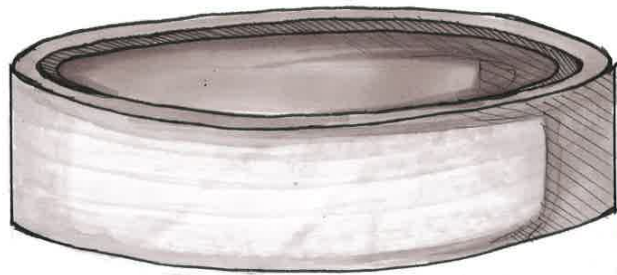
Search images



By placing the light next to the pleated cling bag, you can see that a very long spot of light is reflected off the wall, as well as being very similar to sound waves.

ROTATABLE

The light can be rotated like stick rubbing against the singing bowl to make sound.



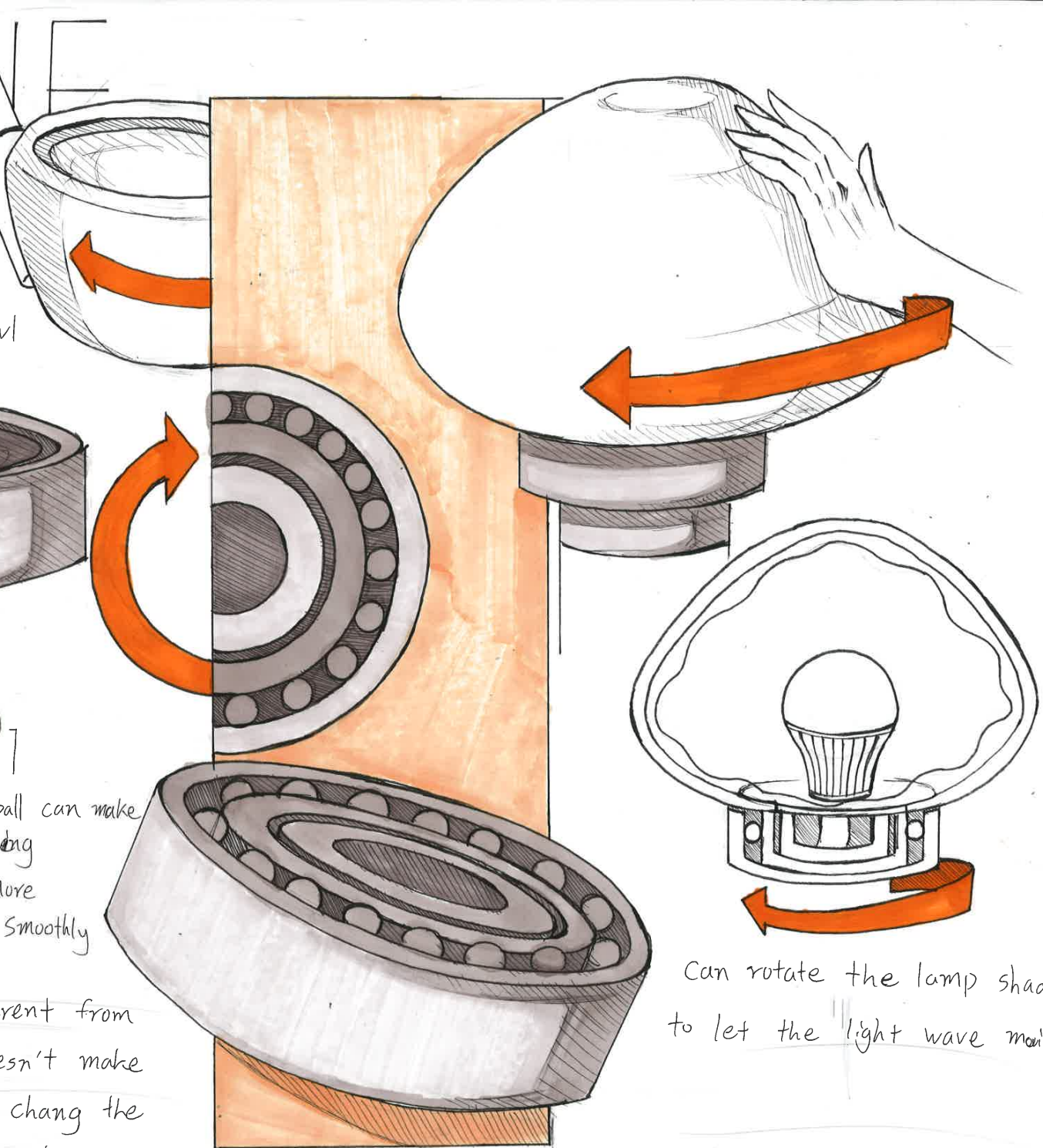
Moving



The ball can make moving more smoothly



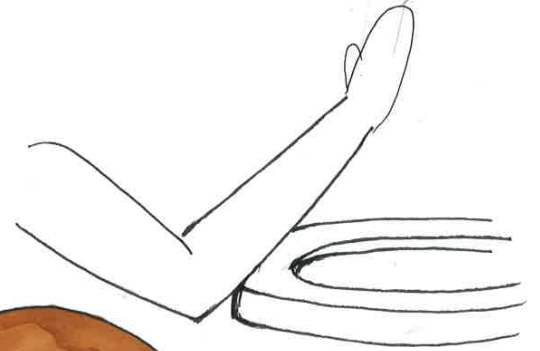
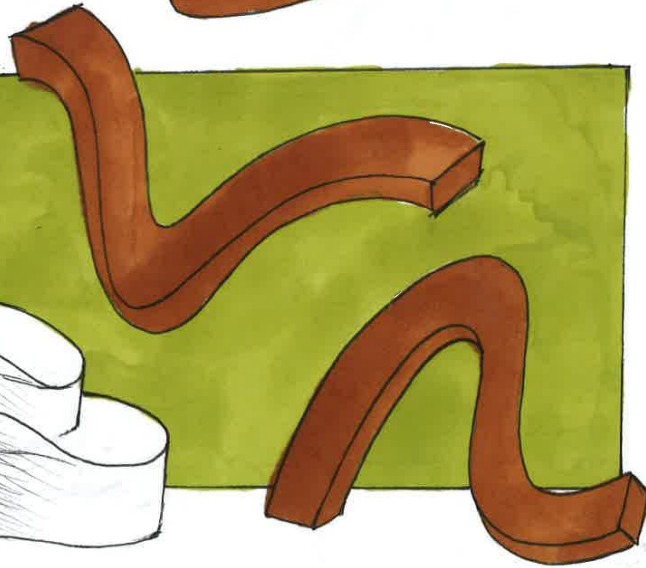
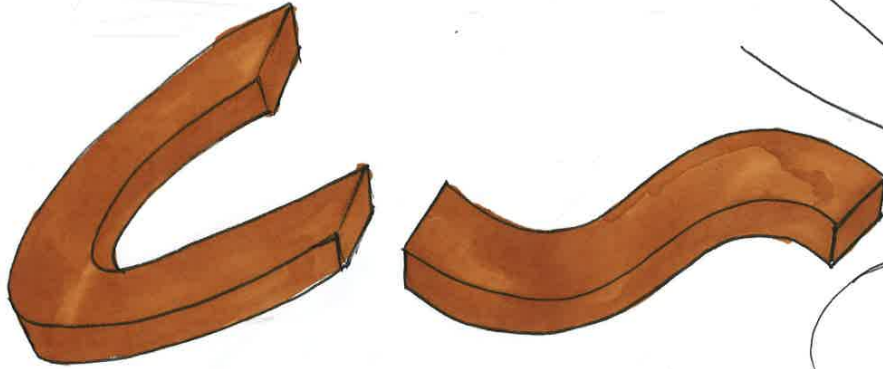
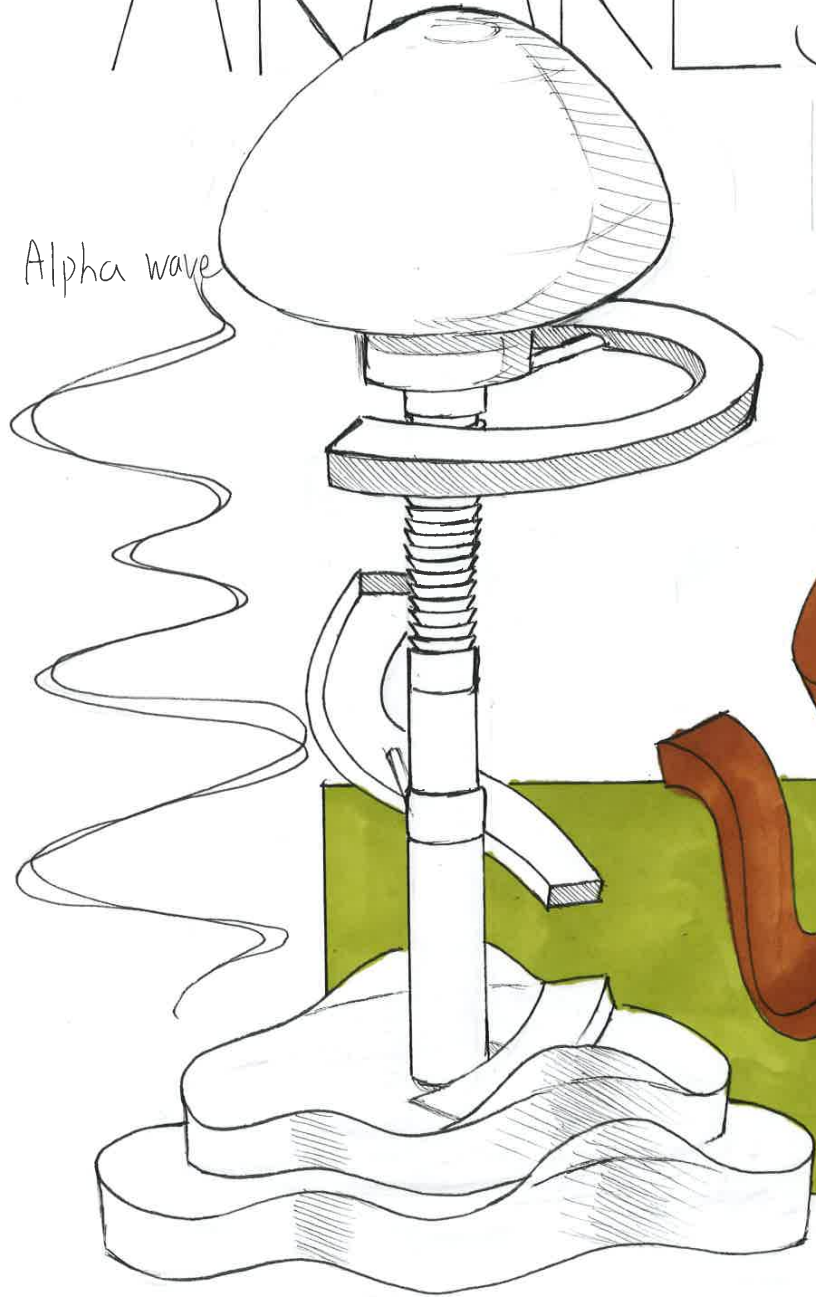
But that different from the light, it doesn't make sound, but can change the light wave and moving.



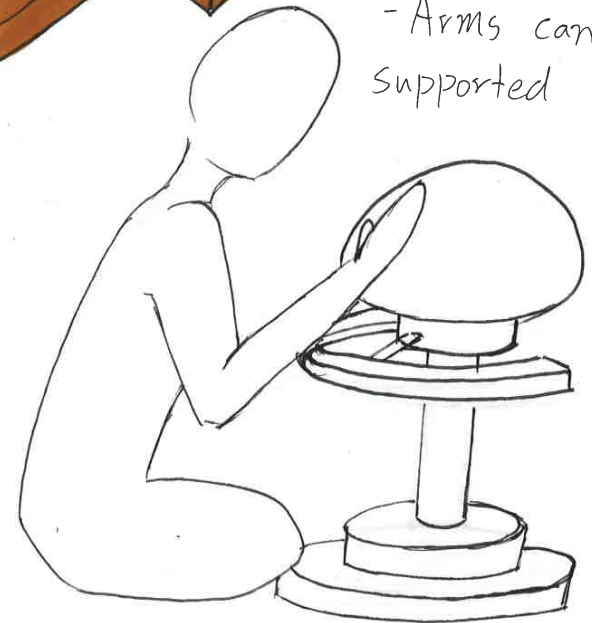
Can rotate the lamp shade to let the light wave moving.

ARMREST

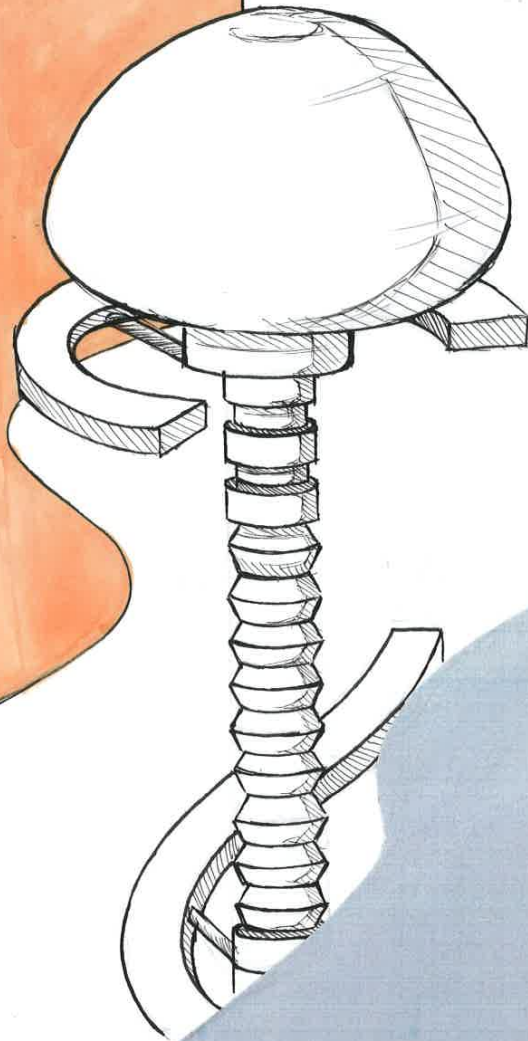
Alpha wave



- Arms can be supported



To 3D



Materials



Acrylic is relatively lightweight and easy to work with and handle. This makes it a lightweight to make and can easily make corrugated shaped lampshades. At the same time acrylic has excellent abrasion and weather resistance and is not easily discoloured or aged.



Wood has a natural beauty with a variety of textures and colours and I decided to use this material as a surround around the lamp and to support the arm panels. At the same time wood is a renewable resource, and through sustainable forest management it is possible to ensure a continuous supply of wood, helping to reduce the environmental impact. And wood can be cut, carved, painted and glued into a variety of shapes.



For the part of the lamp post I decided to use metal because metals usually have excellent strength and durability, they are suitable for heavy pressure and loads that need to be withstood, at the same time metals are excellent conductive and thermally conductive materials that can help to transport electricity safely, that's why I chose to use metal for the lamp post.



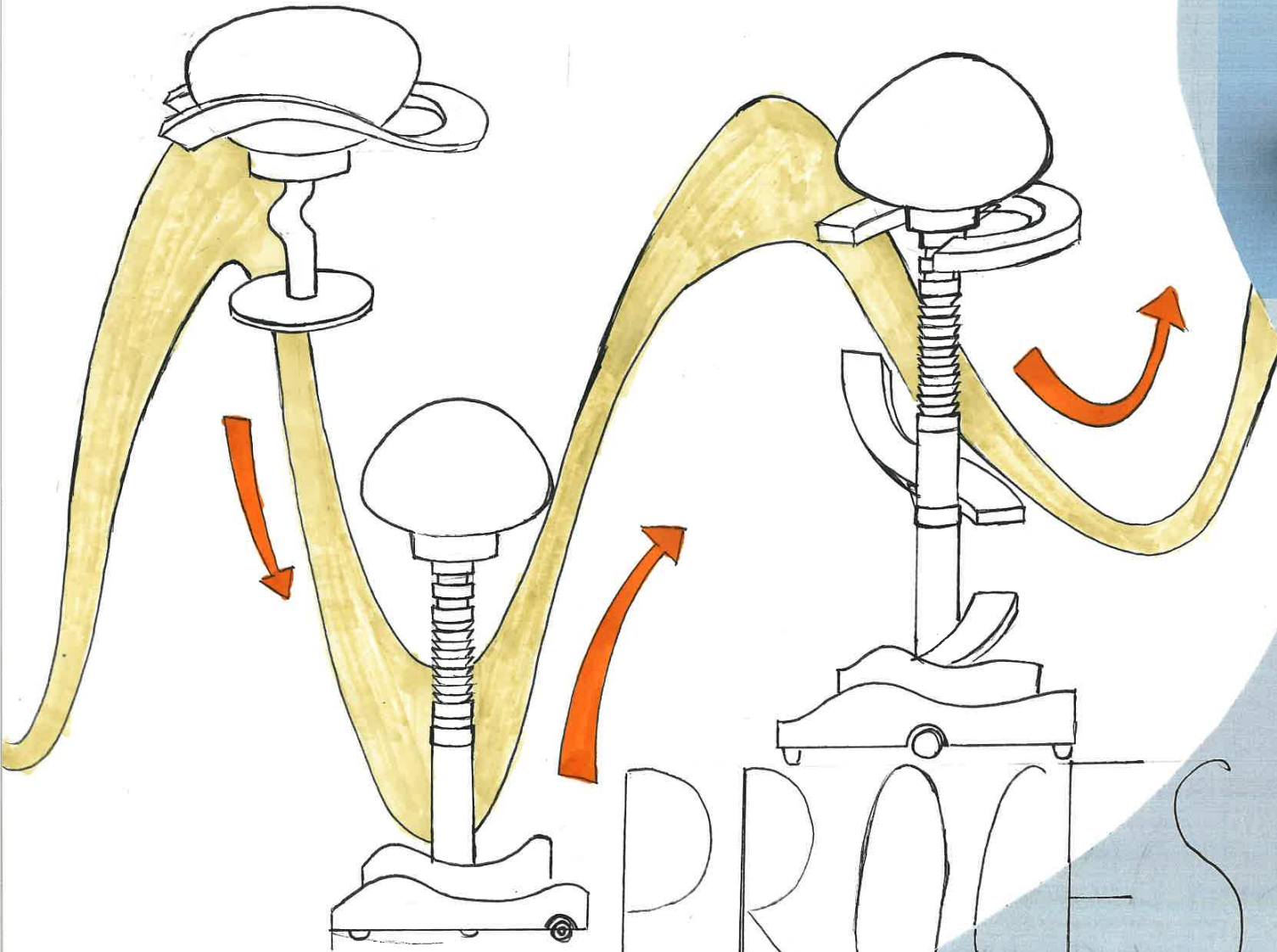
Soft metal is similar to metal but can be bent to shape very well, so I decided to have this material as the stretchable part of the lamp post.



I chose to use plastic for the base of the lamp because plastic is lightweight, so the lamp will be easier to move around that way, too.



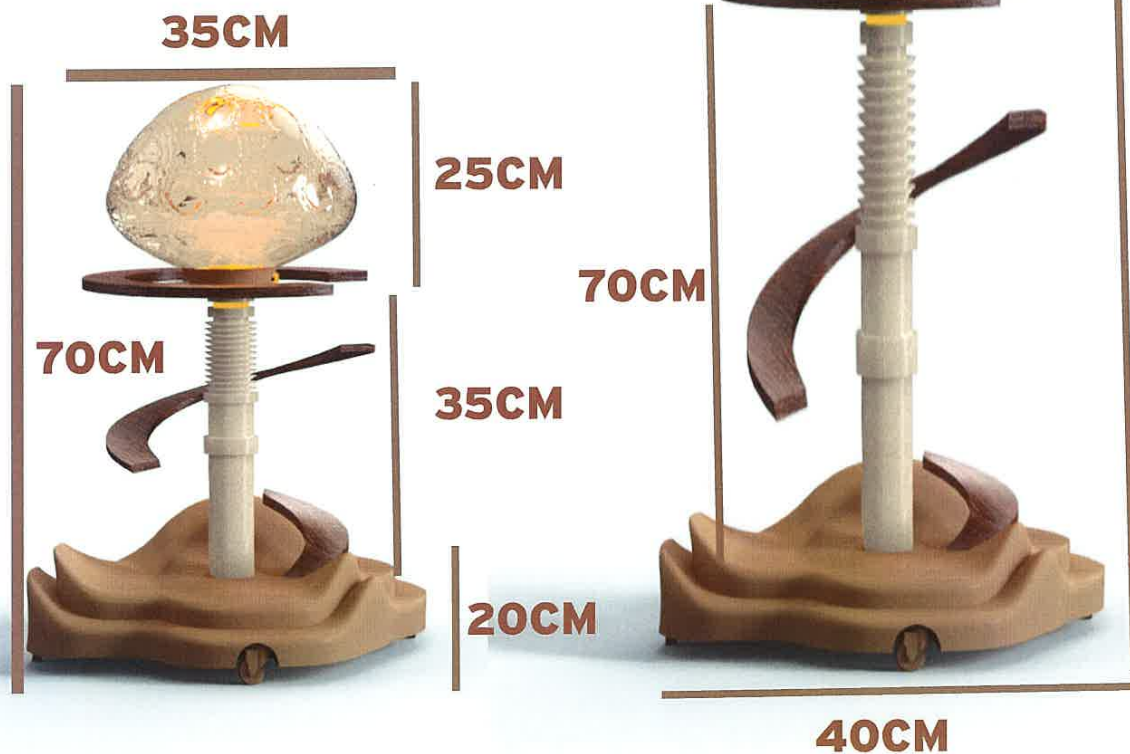
DESIGN



PROCESS

How To Change Size

Because I decided to design the lamp to be adjustable in length so that it can be used in different situations for different people.



This area can be lengthened and shortened like a straw.

115CM

The desired height can be adjusted up or down at this part.

MEDITATION

SBL

Singing Bowl Light

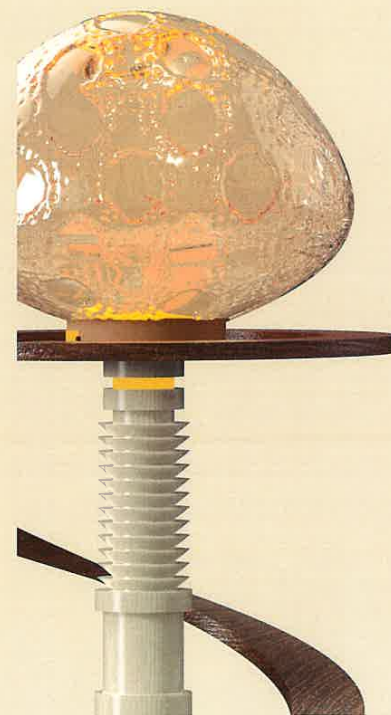
Give you a most comfortable meditation experience.

The idea of this product is derived from the singing bowl, and combines many elements of the above, such as the sound wave and alpha wave emitted by the singing bowl, hoping that through this product to give the meditator a new lighting and meditation experience.

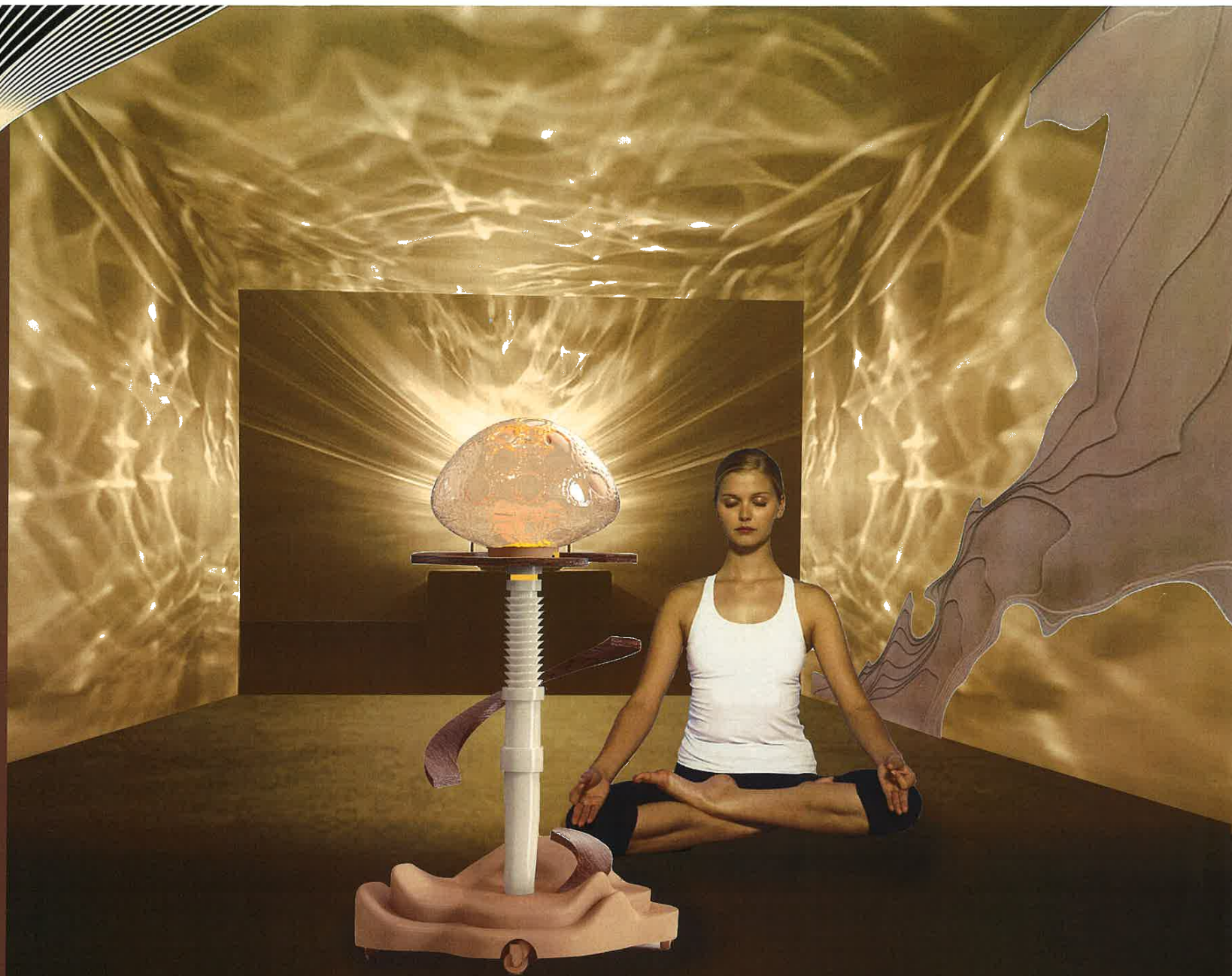
This product also offers safety and stability and makes rational use of the entire product structure. This light will allow people to meditate better through the form of light waves, by showing the singing bowl in another form of light, This not only demonstrates the versatility of the light, but also introduces the user to a whole new approach to meditation.





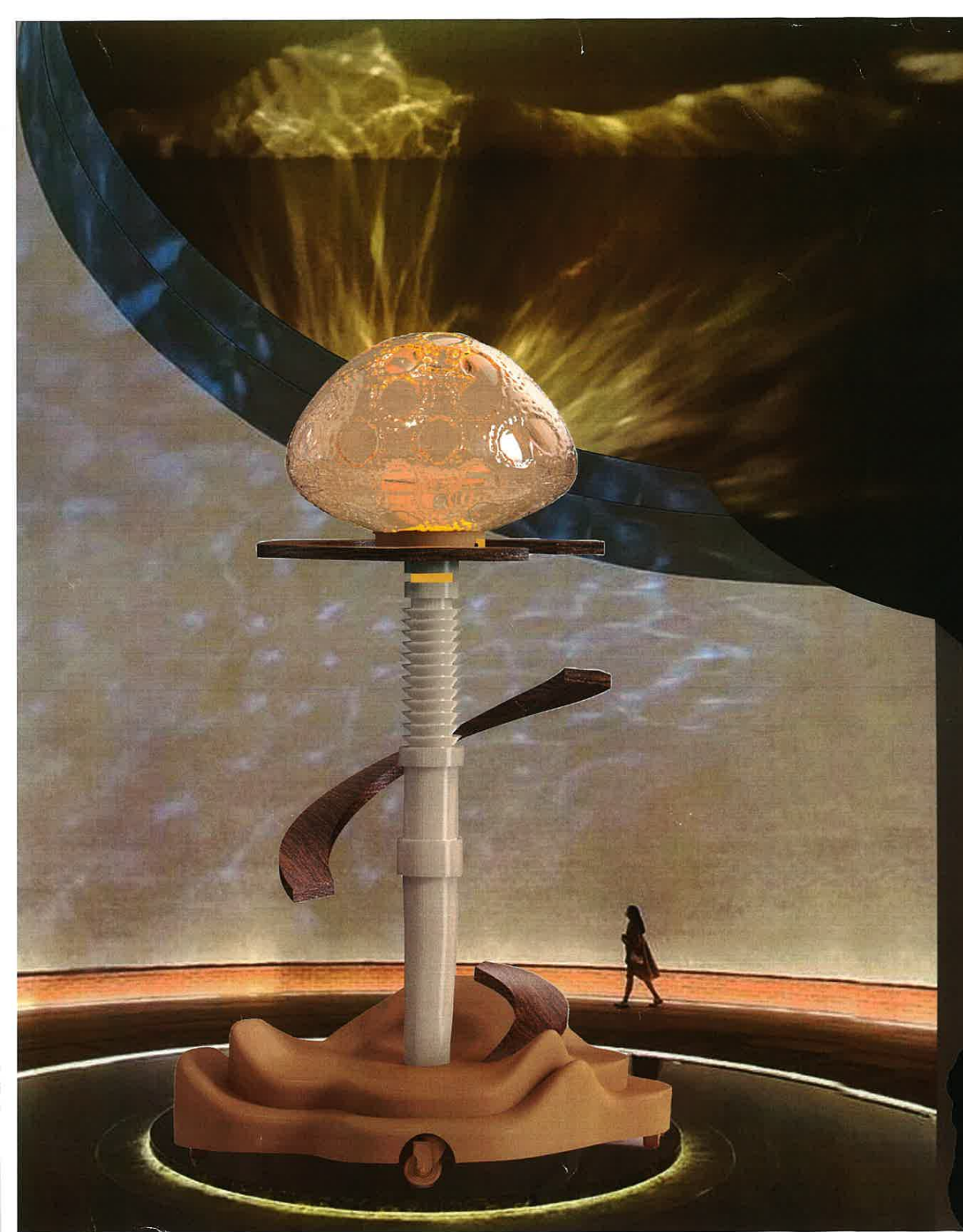


Light wave meditation helps to expand an individual's consciousness. So by focusing on the changes and shapes of light waves, one can explore the inner world and connection with nature more deeply. Lightwave meditation helps people to perceive and interact with the energies of nature, increasing their sense of respect and connection to the natural world. Also different coloured light waves have different healing powers. Using specific colours of light waves in meditation can be used to balance the body's energy centres, promoting emotional calm and physical healing. Light wave meditation helps people to better perceive and understand the space they are in. By observing the reflection, refraction and movement of light waves, people can gain a deeper sense of how they interact with their surroundings.



Link To People & Space

For Student and Teacher



Scholarship

Subject: Design and Visual Communication

Standard: 93602

Total score: 15

Score	Marker commentary
04	Design ideation This submission uses a singing bowl to initiate ideas for a product. Initially ideas for form that arise directly from the form of the bowl and stick are explored. Layering in ideas relating to sound waves and movement result in more designerly ideas being explored. Extending exploration into the context of meditation add purpose to the idea generation.
05	Design practice The design practice in this submission is firmly embedded in the context of meditation. The student shows purposeful thinking about the context through their engagement with a range of considerations relevant to meditation practice. A personal understanding of the value of meditation adds to the authenticity of the design practice. The practical and technical aspects of the meditation light are explored and refined although details tend to be treated separately. Integration of the exploration of parts and details within the practice could improve the outcome further.
06	Visual communication Visual communication is a clear strength of this project. The context, design thinking and design ideas are conveyed very clearly using visual techniques. Sketching and hand rendering have been used particularly well. Pages are well laid out to allow a viewer to easily understand the narrative. Human engagement has been frequently shown so that the use and purpose of the product is convincingly conveyed.