

# DOKU

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## **Episode 1: Topics**

**I started this project with brainstorming. coming up with 5 different topics that are related to the nature and the city. Those were:**

- Light**
- Wind**
- Plastic & Recycling**
- Bees extinction**
- Homeless**

## **Episode 1: Topics**

**After the first brainstorming, I have decided to focus on the next topics:**

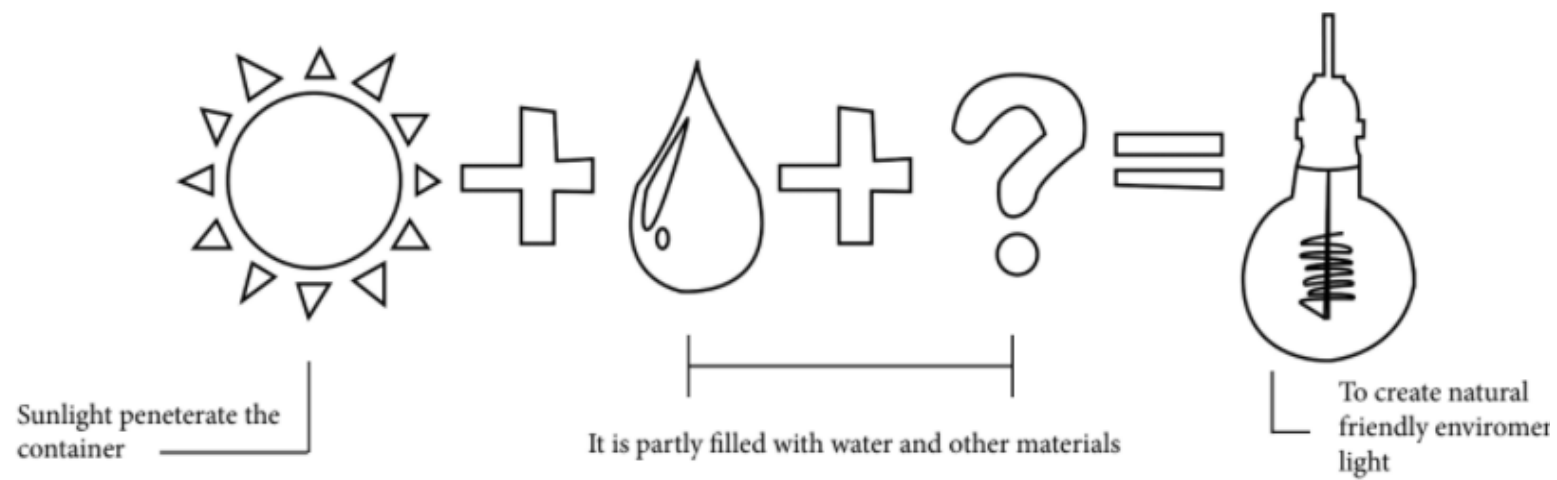
- Light**
- Wind**
- Homeless**

# Episode 1: Topics

## 01 Light

### Delivering light:

Be bases on the previous simple expirement of making lights with empty bottles, water and bleach. They will create light when sun or other light source touches them. Designing an aesthetic large container for it (perhaps adding another material such as food color) for creating lights in other colors besides white that the bleach makes.



## 01 Light

Designing a lamp that works 24/7 without electricity.

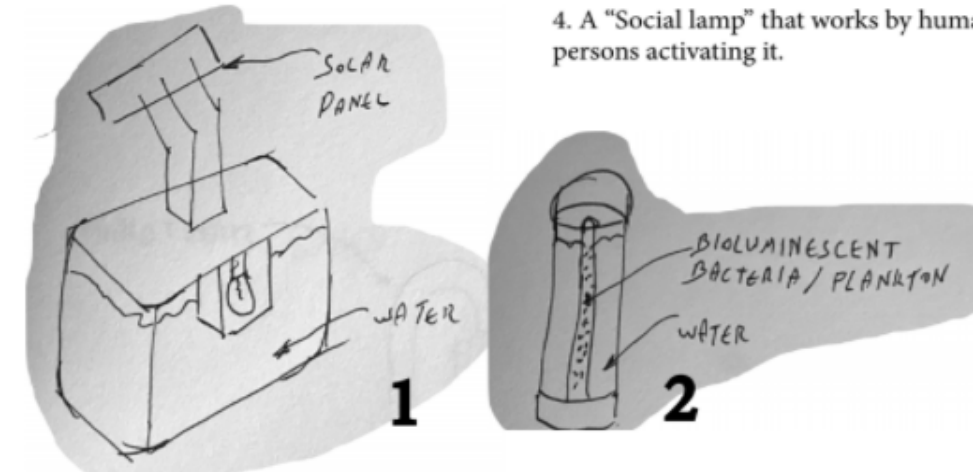
1. A lamp that is based on water with bleach or another material, which has solar panels on the top and a light bulb which sits inside a box inside of the water container.

During the day, the light will peneterate the water and act as a day lamp for grey days. Also, it absorbs the light by the solar panels (even on cloudy and grey days, it can) - And during the night, the bulb will light up behind the water and create a larger light effect for the night. Might also work out with smoke or tonic water instead of normal water.

2. A lamp that contains Bioluminescent bacteria or plankton, they will act as the light source for the water. It is also a small living garden inside the lamp.

3. A street light the has in its edge the same mechanicism for examples 1 or 2.

4. A "Social lamp" that works by human power, only works with a few persons activating it.



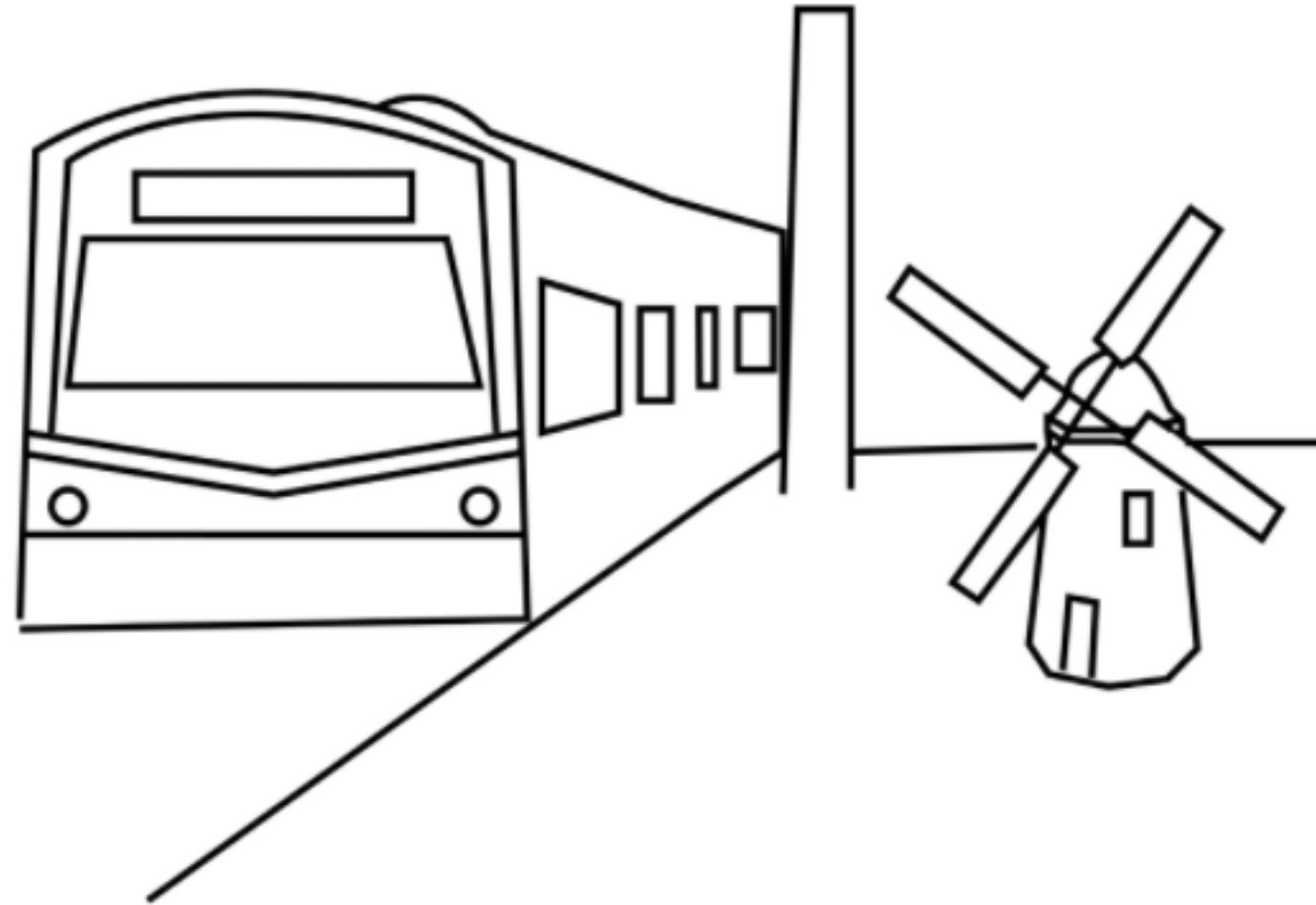
# 01.1 Light / Shelter

Designing a firefly shelter that acts as a lamp:  
Fireflies begin in the past years to go extinct ; Designing a friendly  
shelter (safe zone) for them that will also act as an enviromental friendly  
lamp.



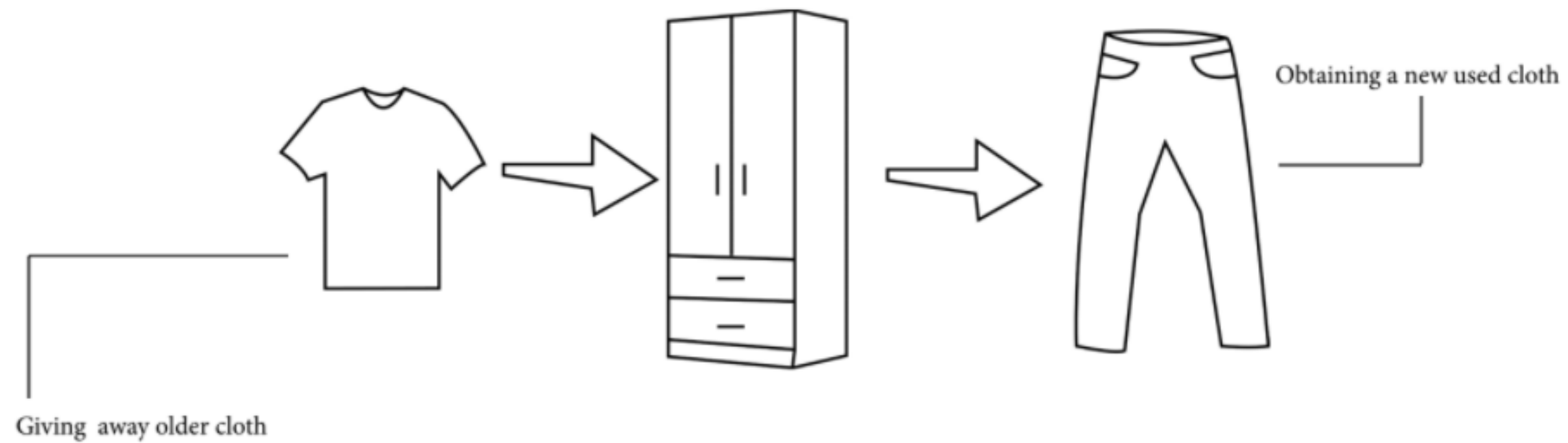
# 02 Wind

Converting a Metro station for being wind powered.  
It would be attached to a Dynamo or another generator  
to receive maximum electrical power that converted  
from the wind inside the station.  
Designing a kind of windmills that are spreaded  
across the station.



# 03 Homeless Living

Living in a more modest way,  
Designing a wardrobe / closet that people can  
receive free used clothes, only if they give it a used  
cloth of their own.  
Changing the culture of consumption.



## Episode 2: Light

After that, I have decided to focus in the light subject. I have chosen the fact of Places that lack natural sunlight, and came up with a few ideas, such as Fungi lamps, Fireflies shelters that provide light, and light delivery structures and infrastructures.



# The chosen FACT

Places that lack natural sunlight - Living in such conditions may result in negative effects and disorders for the human body and mind.

# The IMPACT

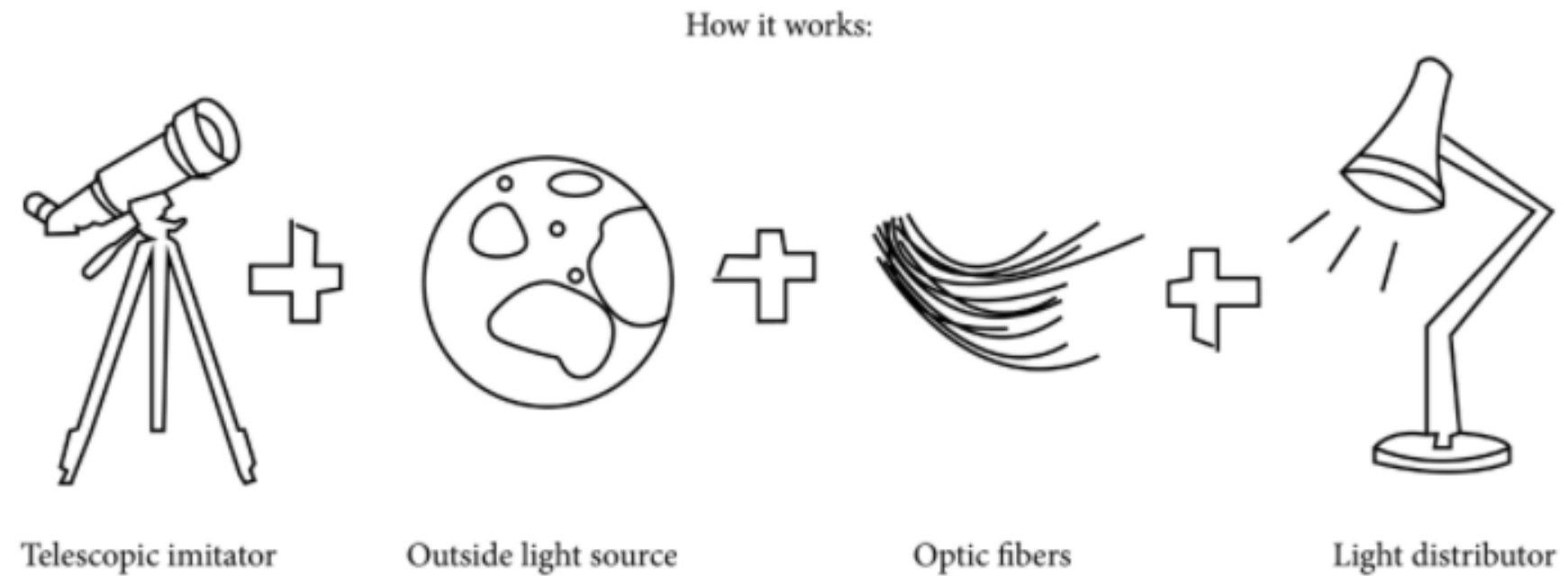
Designing a system that delivers light.

It has to be affordable, not too large, functional and aesthetical.

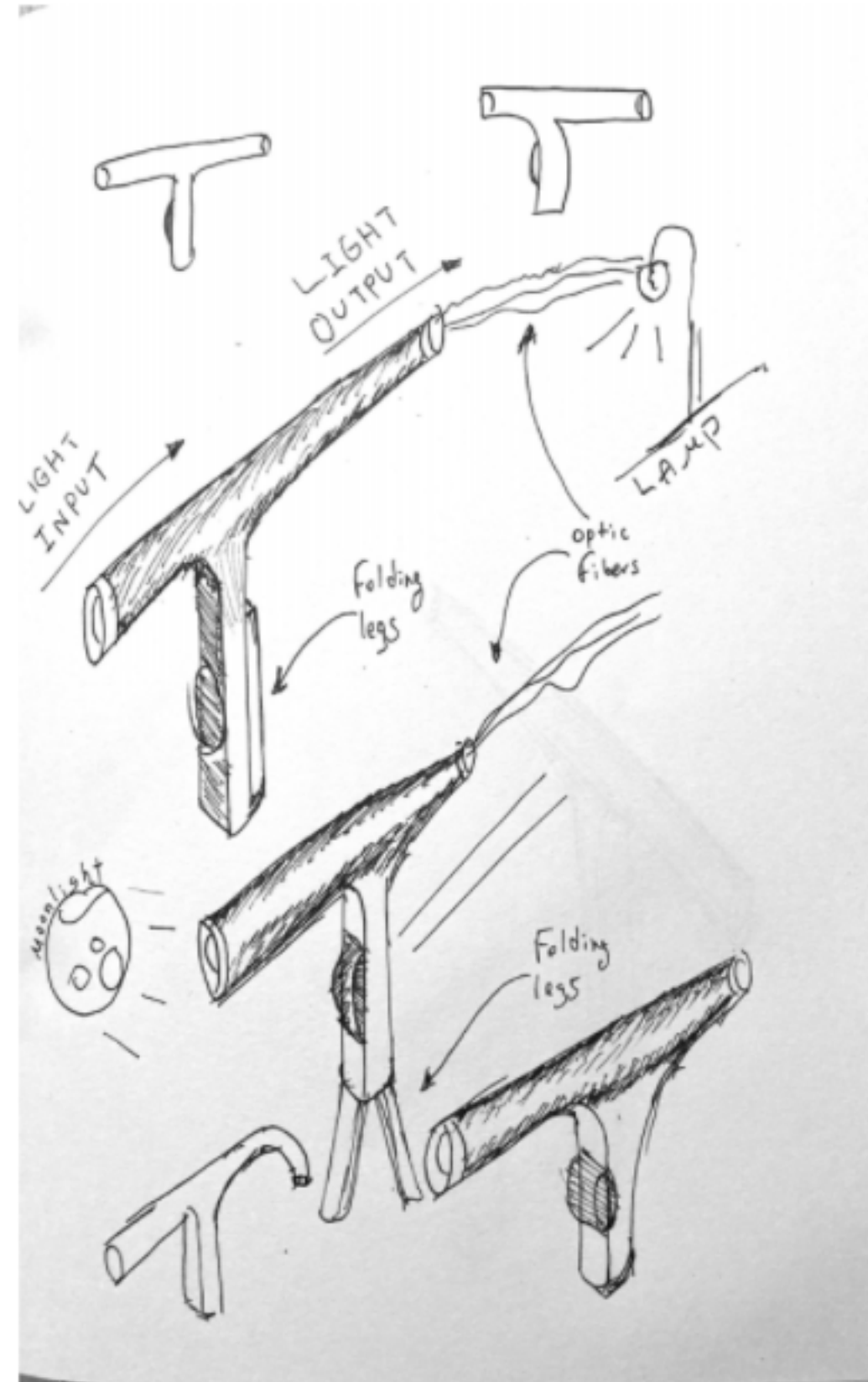
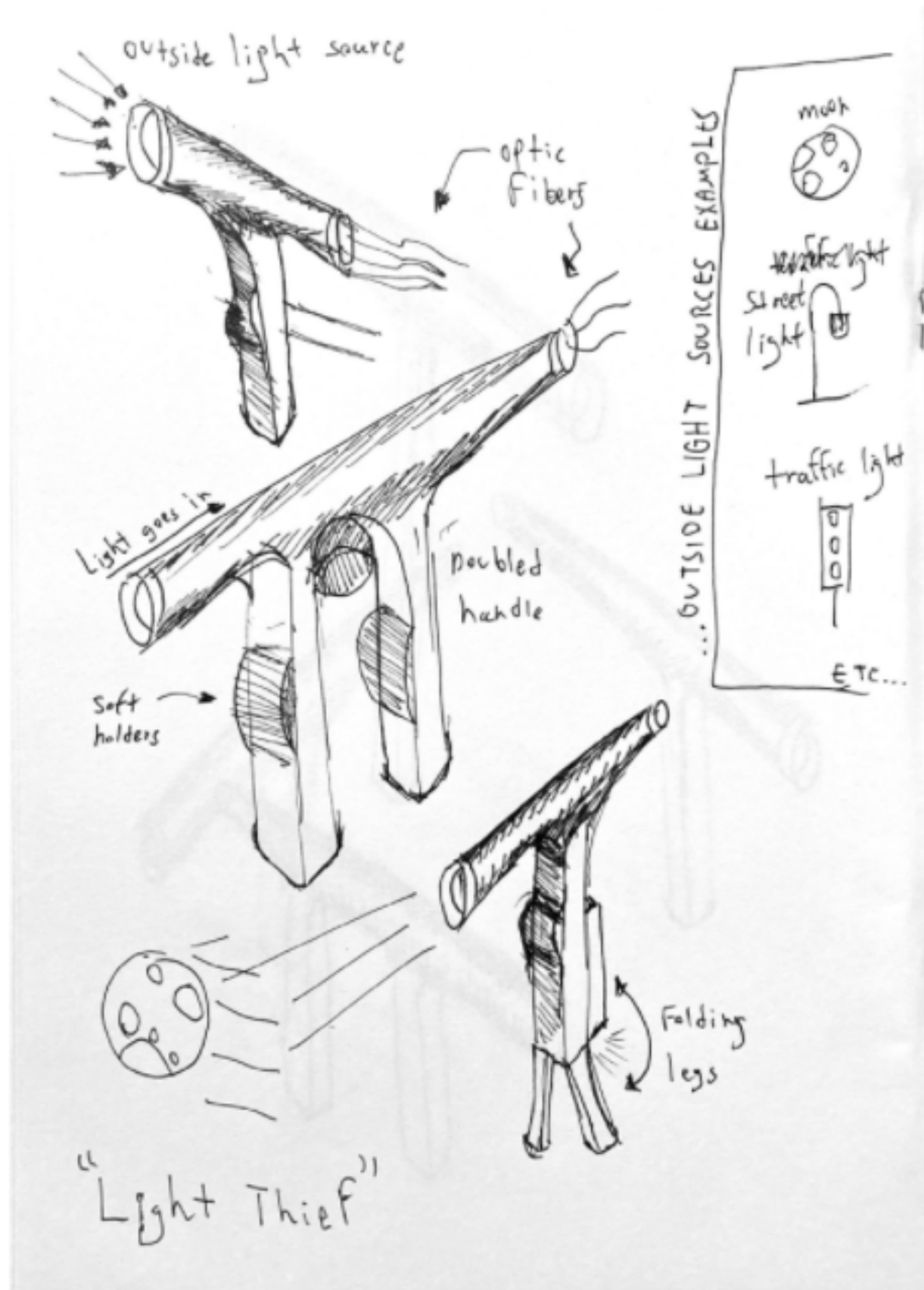
## Episode 2: Light

Coming up with "Light Thief" concept that makes a telescopic system to "steal" moonlight / sunlight / other kind of lights.

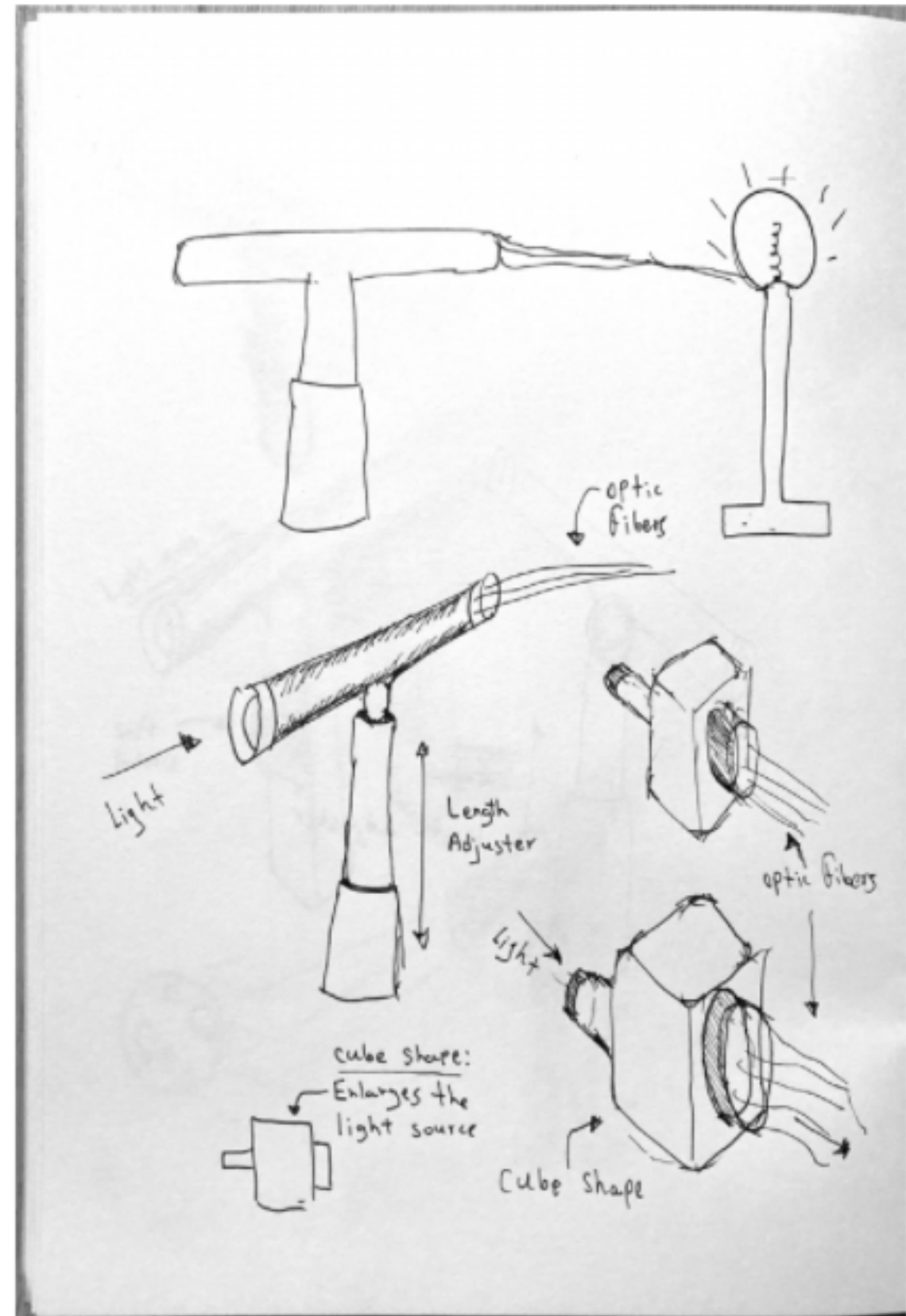
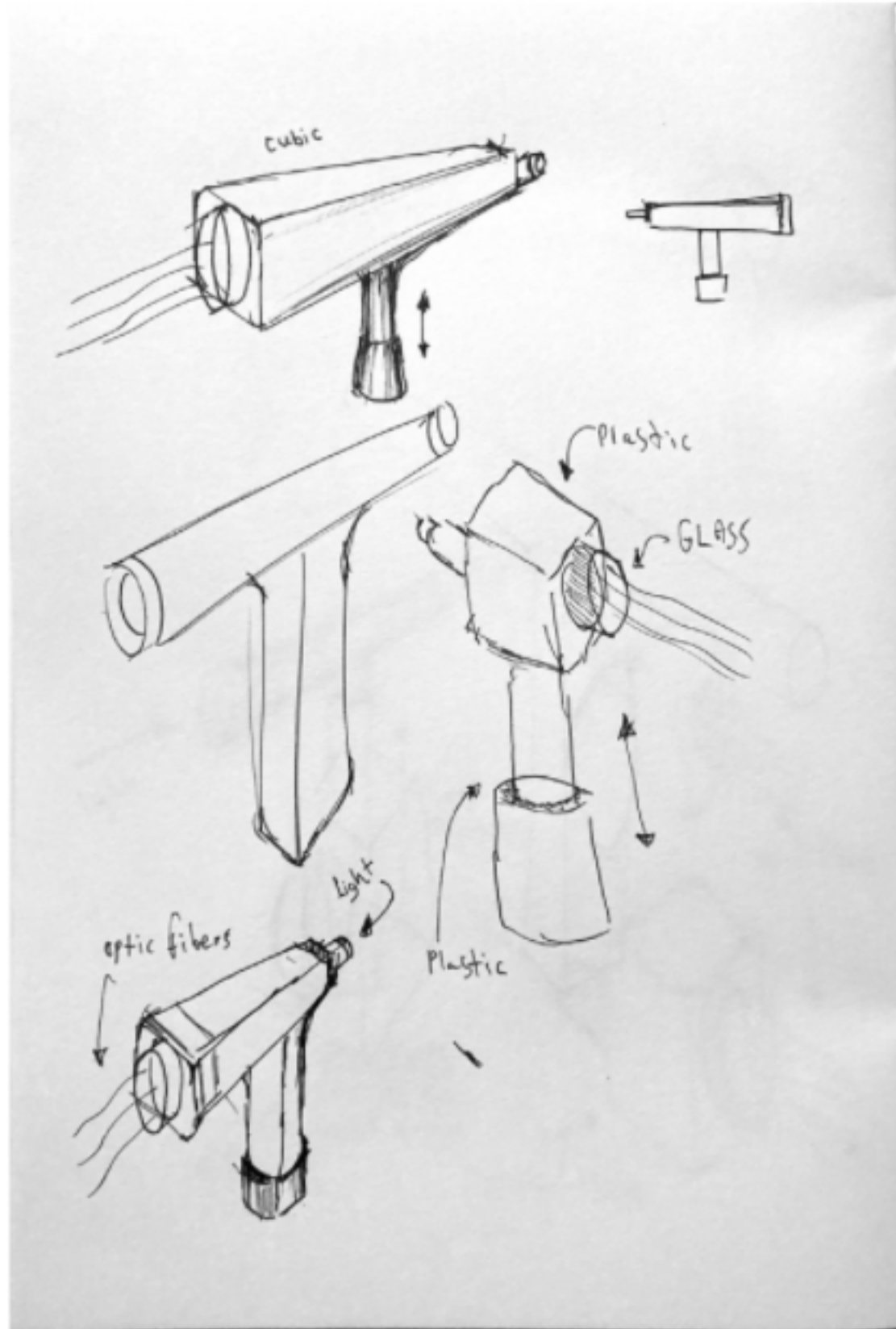
**L**ight Thief is an optic system that consists of an object that mimics a telescope, which is connected to optic fibers, that are connected to a light distributor. This system is designed to "steal" any outside light when is aimed on, and bring it, through as much optic fibers needed, to a light distributor (a lamp) inside a closed space which lacks light.



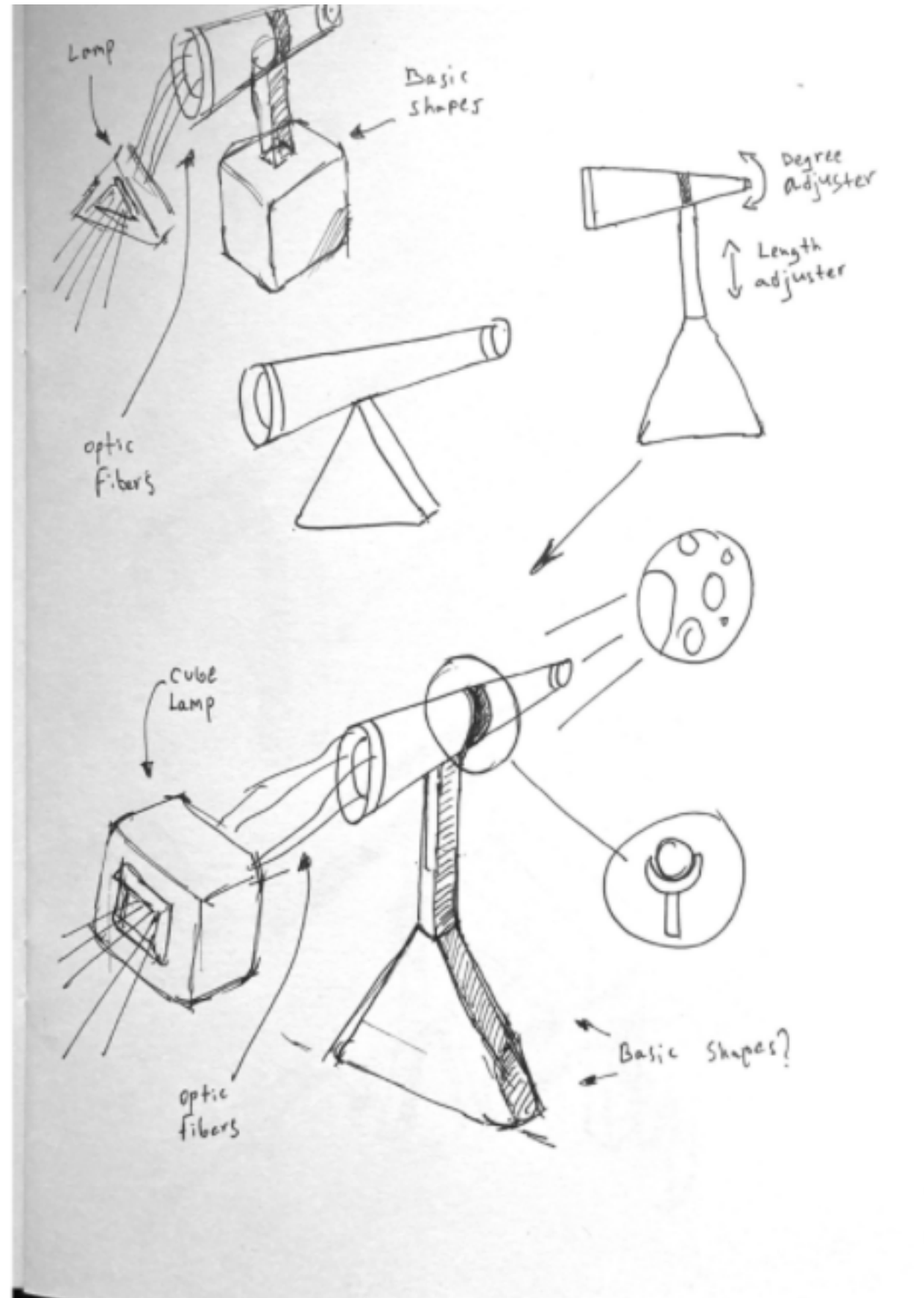
# Episode 2: Light



# Episode 2: Light



# Episode 2: Light



## **Episode 3: Functionality**

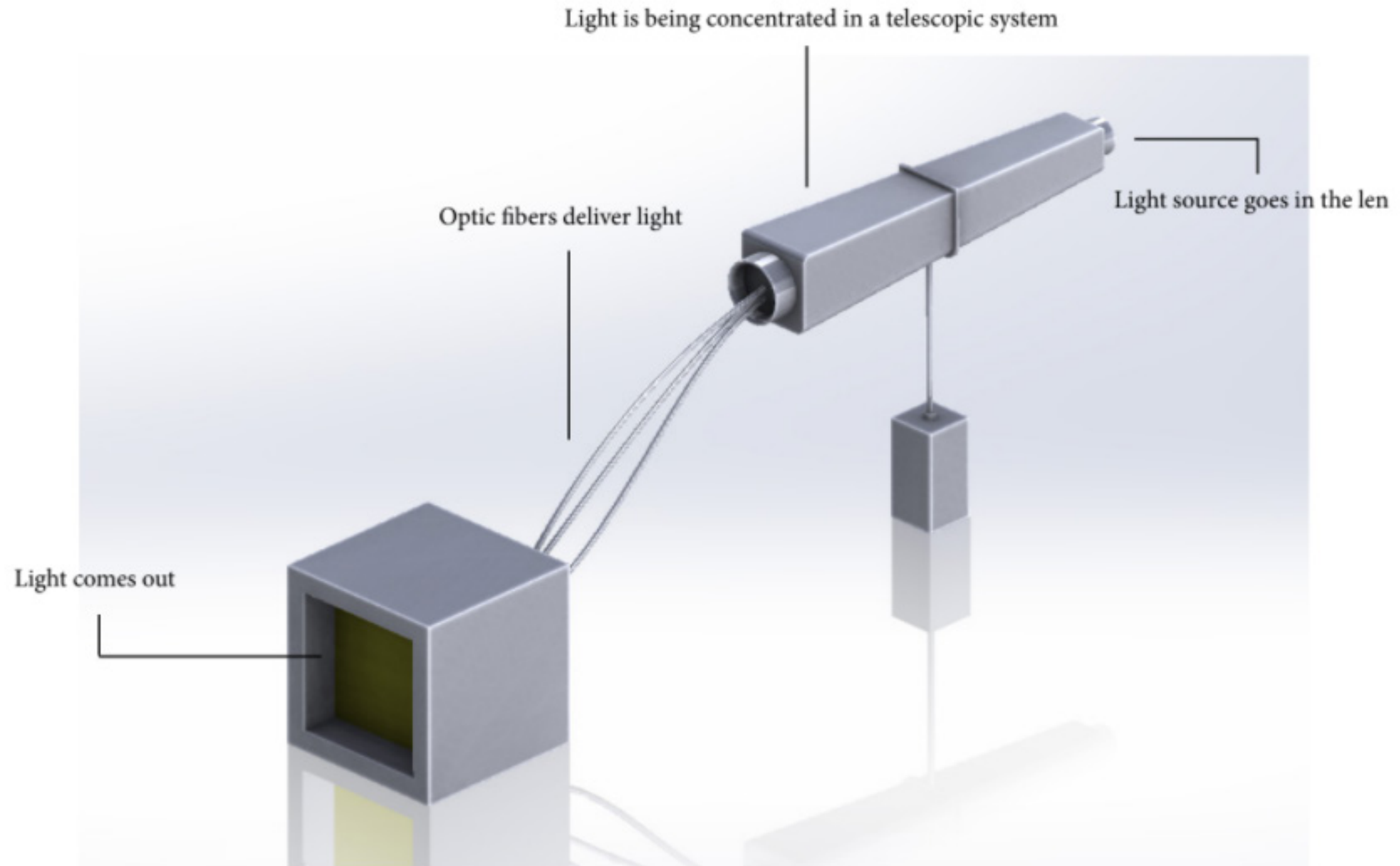
**Trying out certain ways to deliver light, such as mirrors and optic fibers. Coming to a conclusion that high quality optic fibers will do the job.**

## Episode 3: Functionality





# Episode 3: Functionality





## Episode 3: Functionality

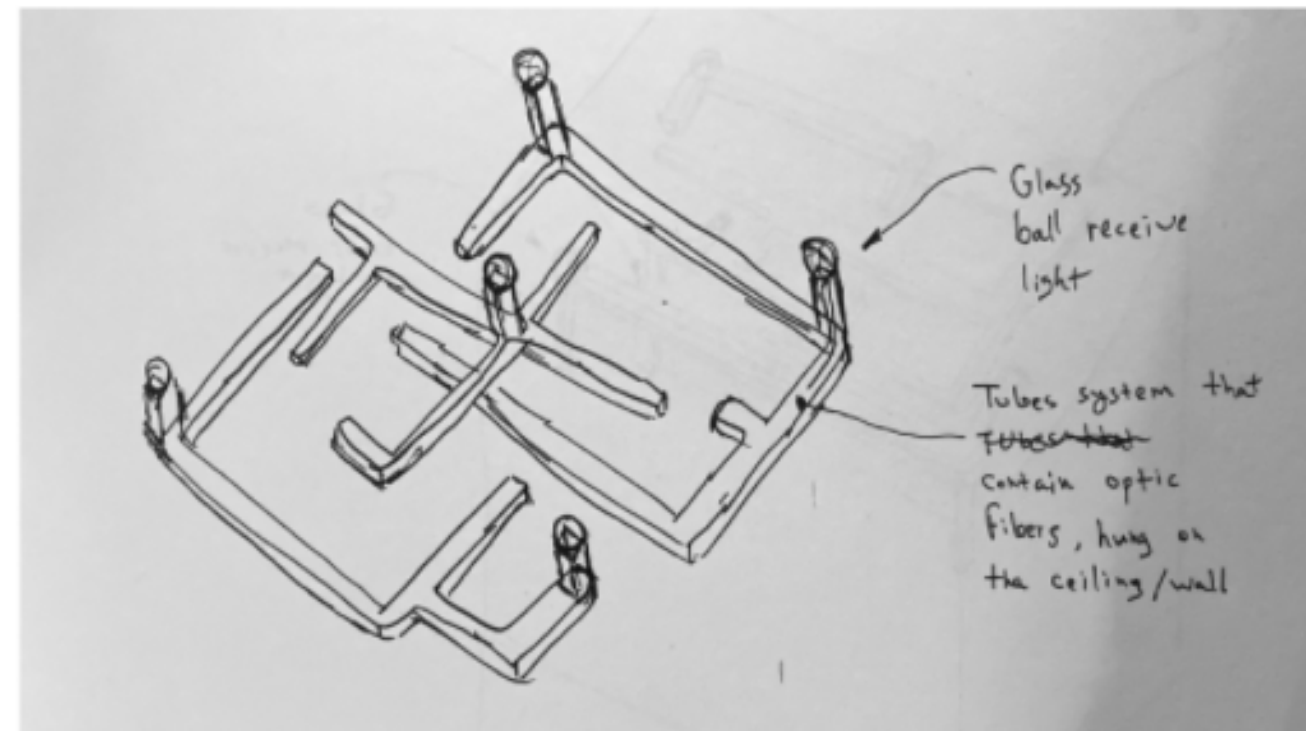
Another idea was to create a ceiling infrastructure of optic fibers and Lens balls.

# Light Draining

Designing an optic fiber system that consists of light receivers (glass ball for example), that is / are connected to optic fibers.

The optic fibers will be placed inside of tubes, that are hung together on the ceiling or the wall of an interior space, and providing more natural light for places that lack it.

In addition for the extra light that the space will receive, the system will create a new appearance for the location it is hung on / from.



## **Episode 4: Satelight**

**Choosing the final concept as a satellite dish that transfers light for a lamp. Trying to understand if this system would be implanted inside the architecture; inside the walls of the building, or a smaller system that anyone could buy for his own easy usage.**

# Episode 4: Satelight

The idea that stands behind this project is the aim to find a solution for places that lack natural light during the day. Such places include underground shelters, rooms with almost no windows, etc.

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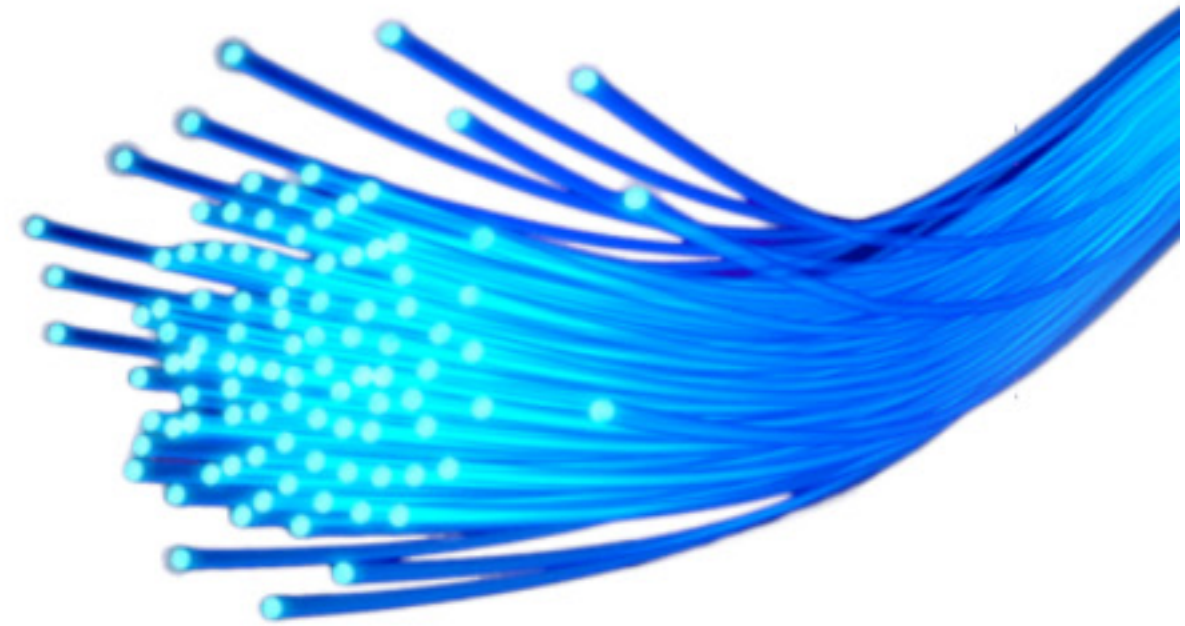
### What causes seasonal affective disorder?

While the specific causes of SAD are still relatively unknown, it's believed that reduced levels of sunlight disrupts the body's internal clock (or circadian rhythm) and can lead to feelings of sluggishness, depression and lack of energy. Sound familiar? Thanks, self-quarantine. Additionally, reduced sunlight can lower serotonin levels in the brain, which affect your overall mood, as well as melatonin levels which can disrupt sleep patterns.

People that spend much time in rooms or other places that lack sunlight are more likely to experience depression.

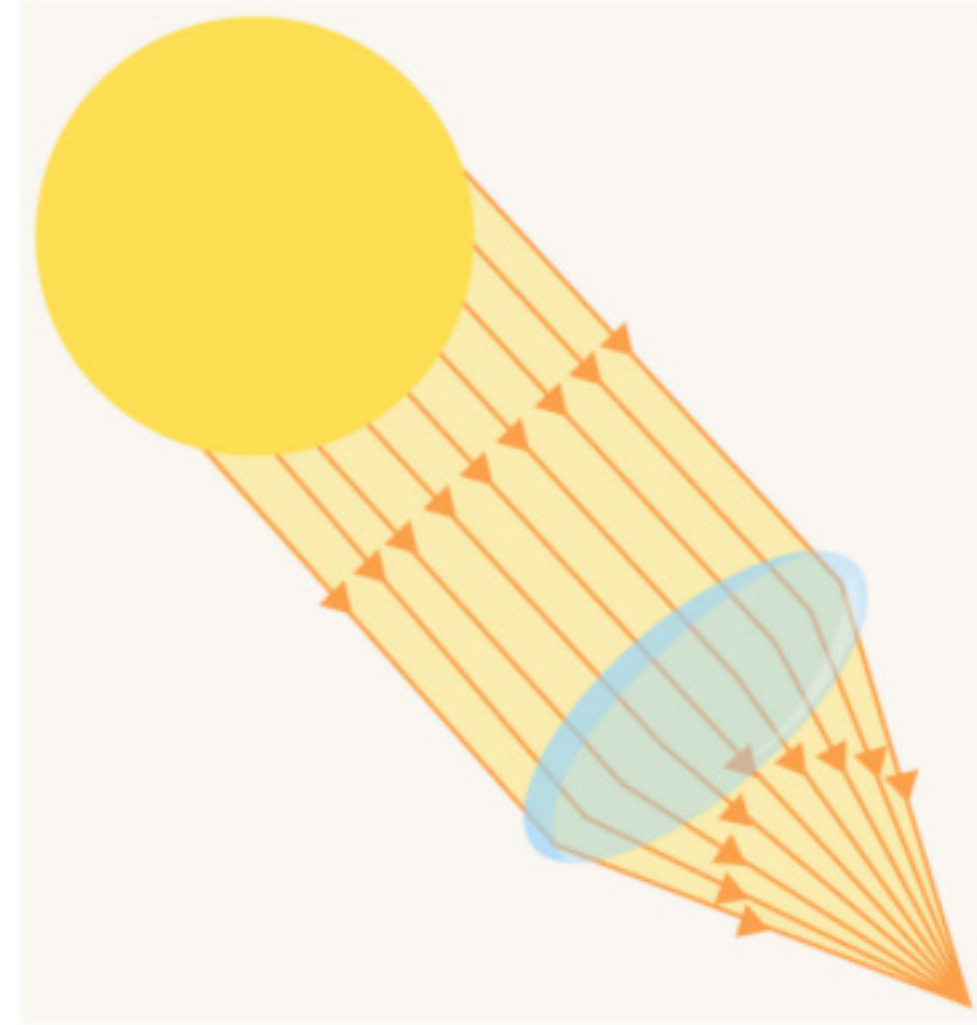
## Episode 4: Satelight

Satelight is a system that is based on optic fibers technology. They will deliver natural sunlight from the outside of a building or a structure into the room.



## Episode 4: Satelight

Using a large magnifying glass to focus and concentrate the sunlight towards the optic fibers.



## Episode 4: Satelight

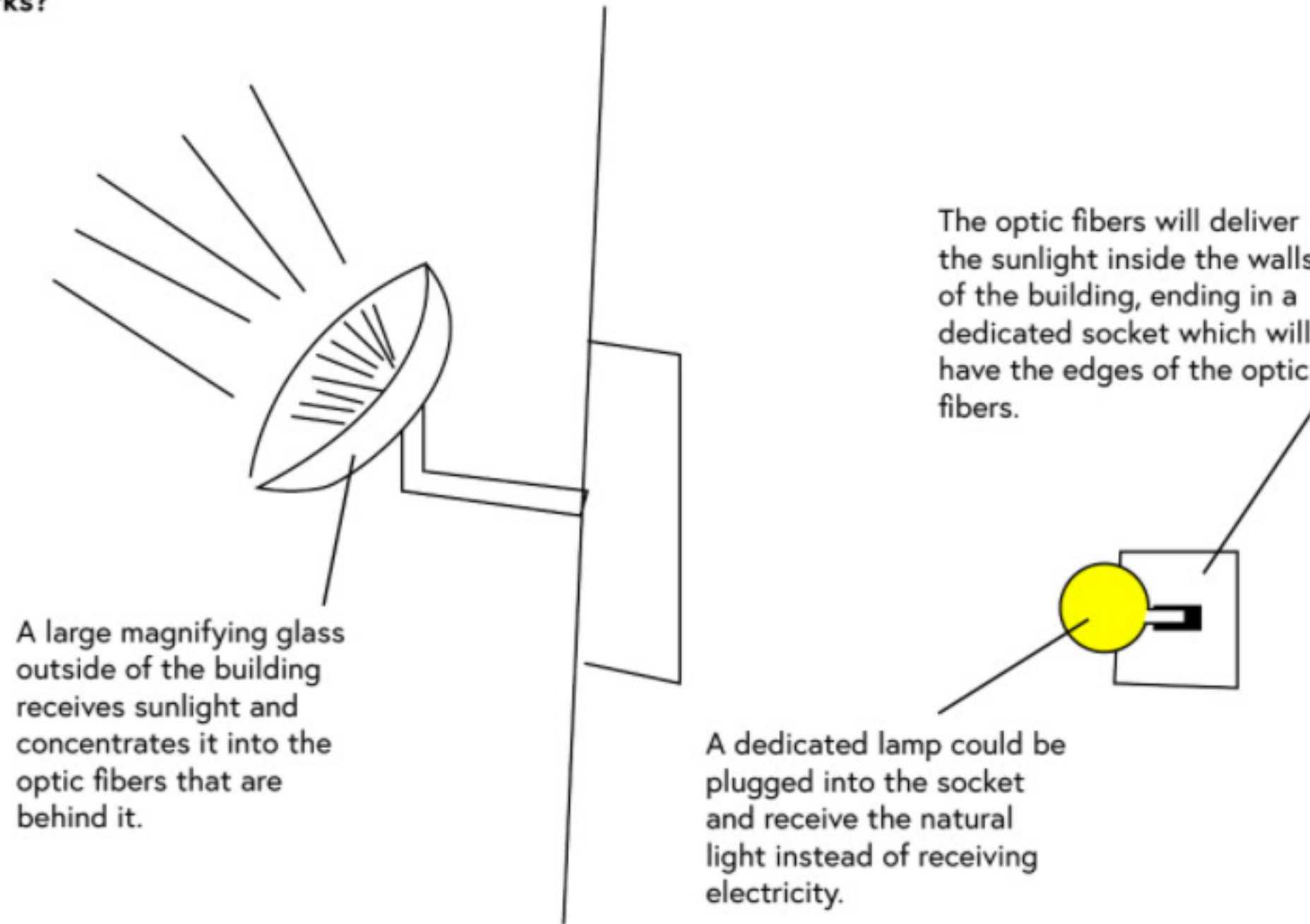
The system will gain its natural light using a satellite dish that serves a different goal. It is hung on the outside of the building like the normal satellite dish, but it is covered with a large magnifying glass that concentrates the sunlight it gets to the optic fibers that are inside it.

The system contains (and the goal to design) 3 pieces: The satellite, the socket, and the lamp.



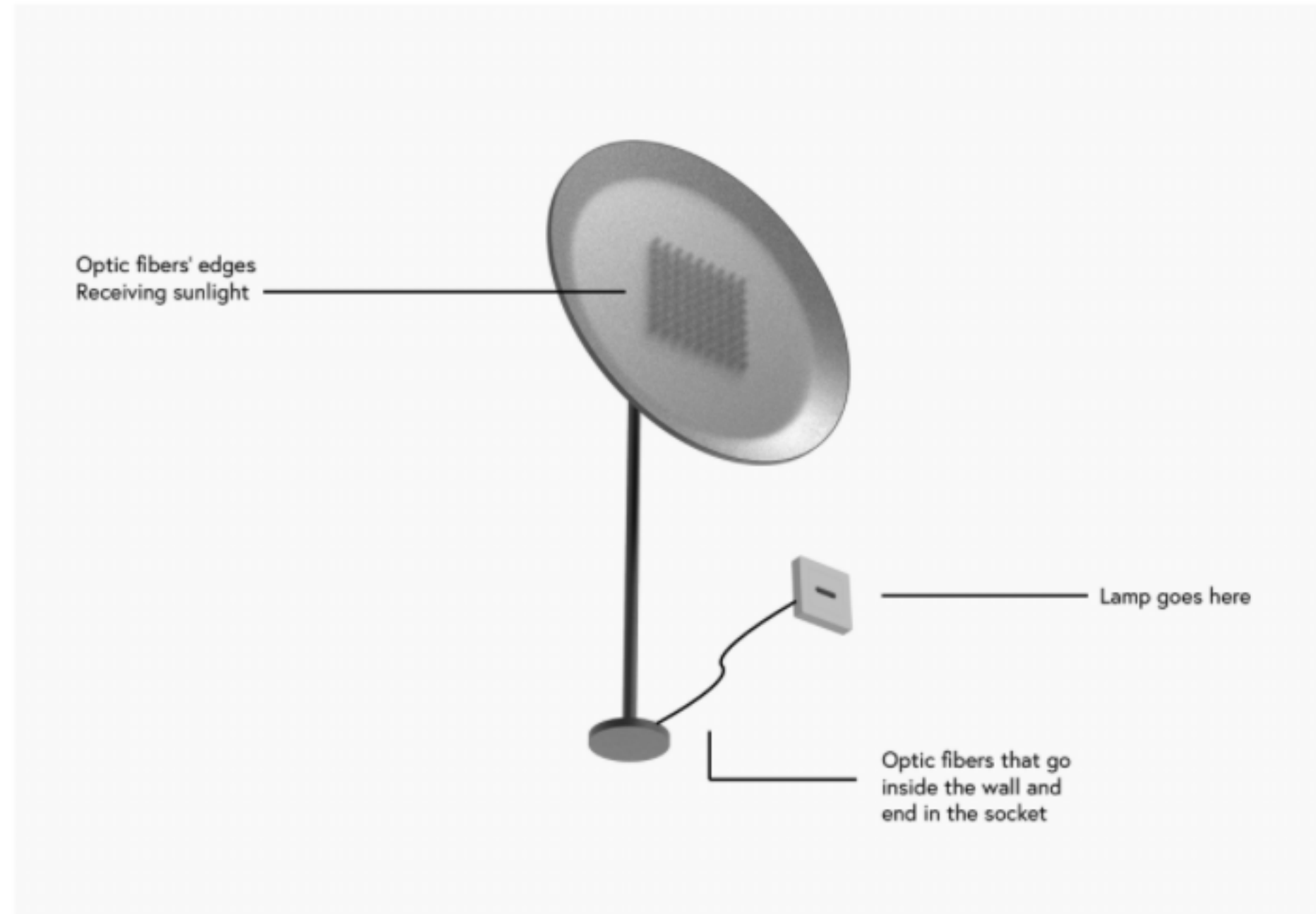
# Episode 4: Satelight

How it works?



# Episode 4: Satelight

First Sketch





## **Episode 5: Design**

**Trying to figure out a form that works efficiently and leads to an aesthetic and good design.**

## Episode 5: Design

### light focusing with a magnifying glass explanation /

a magnifying glass is a convex lens that enlarges an object it sees through, can be founded in a telescope, a camera, etc. by using a magnifying glass to concentrate light, it will focus all of the light to a smaller area. this way, light could be transferred directly into the optic fibers.



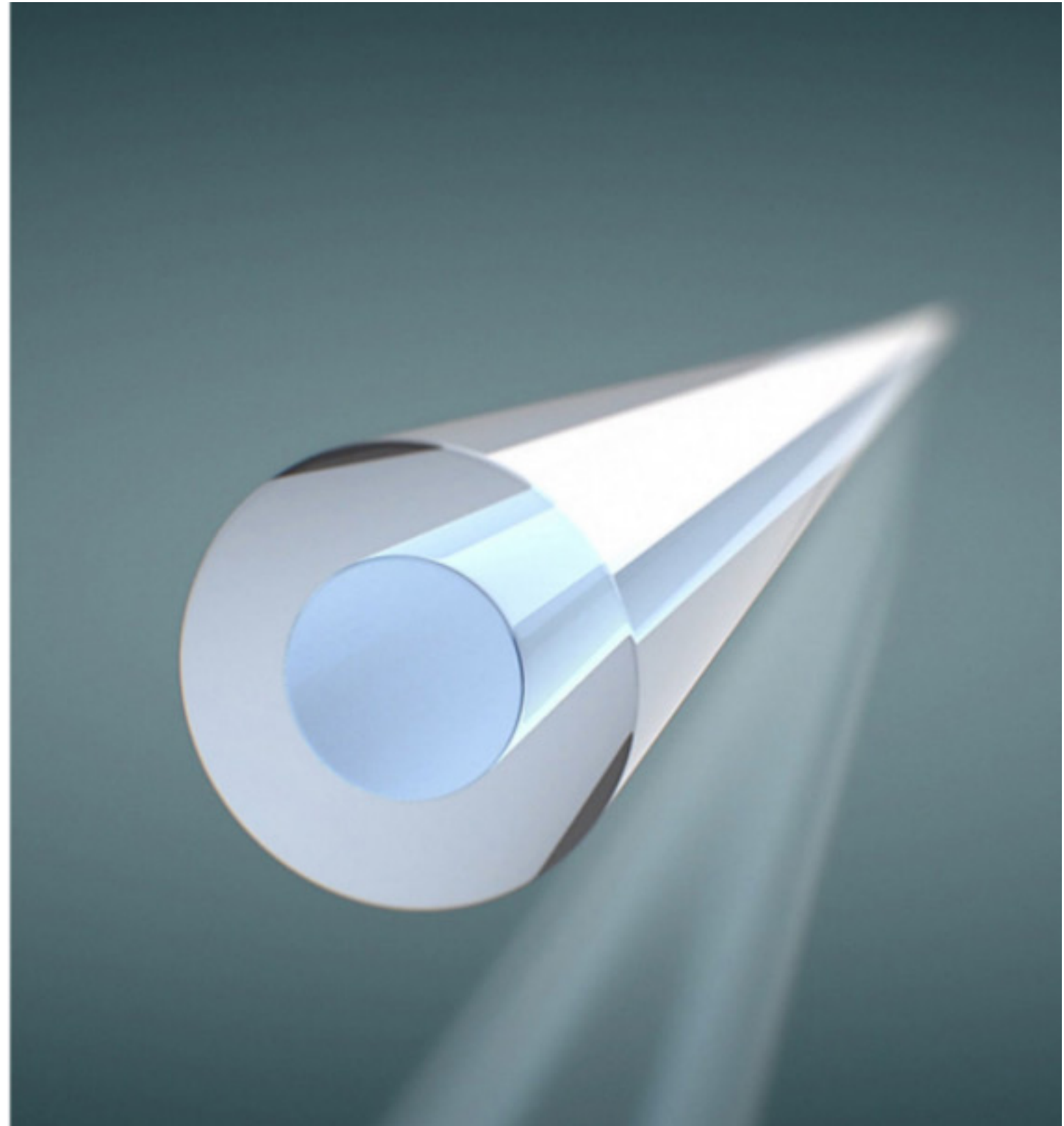
## Episode 5: Design

### how much light can an optic fibre carry?

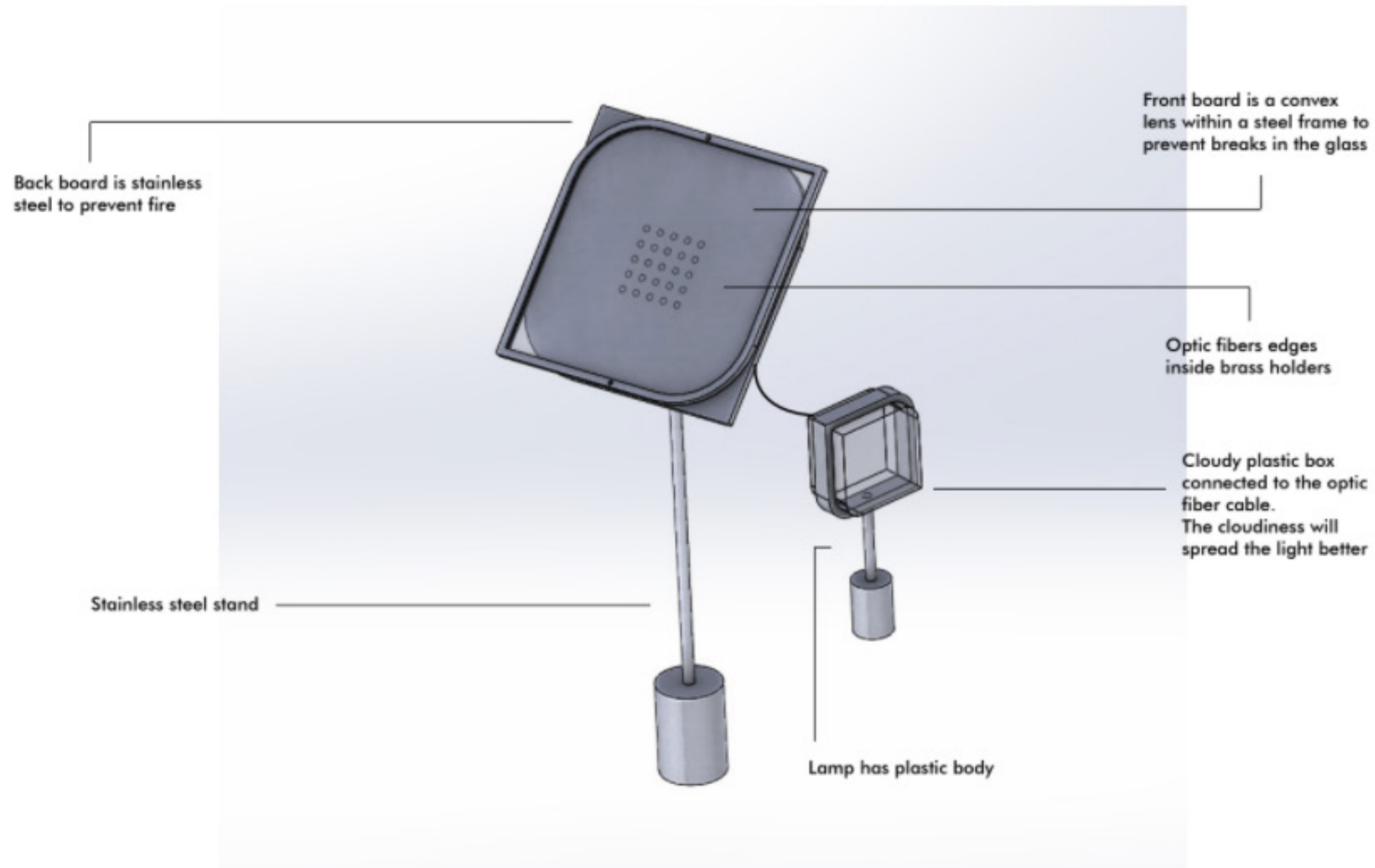
That mostly depends in the quality of the optic fibers. There are plastic fibers and glass fibers. The glass ones are better in delivering light but they are more expensive.

They are able to do so by reflecting the light that hits the edge of the fiber through all its way. In general, light can travel a few hundred feet in optic fibers.

With quality optic fibers, light will not be lost in its way in the optic fiber due to the fiber not absorbing any light.

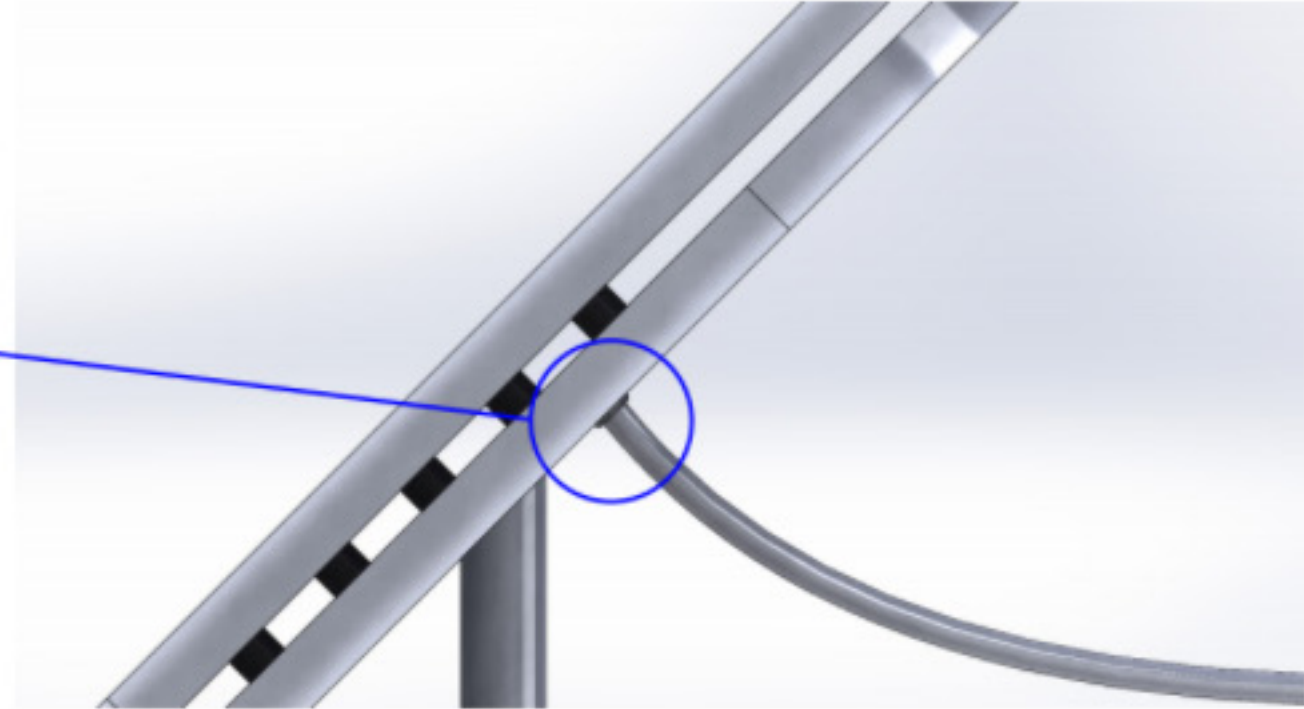


# Episode 5: Design

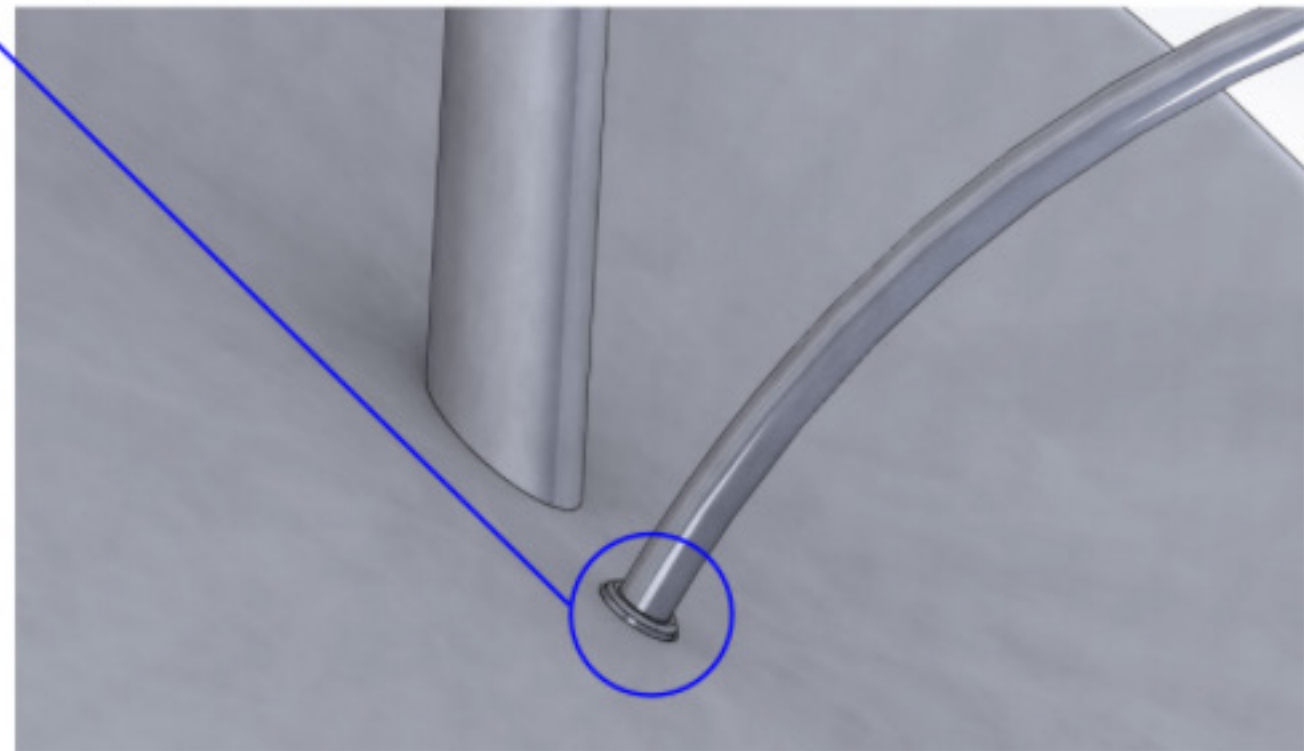


# Episode 5: Design

Detachable optic fibre cable.  
This makes it easy to  
change cable lengths for the  
required distance between  
both parts of the system -  
the lamp and the satellite.

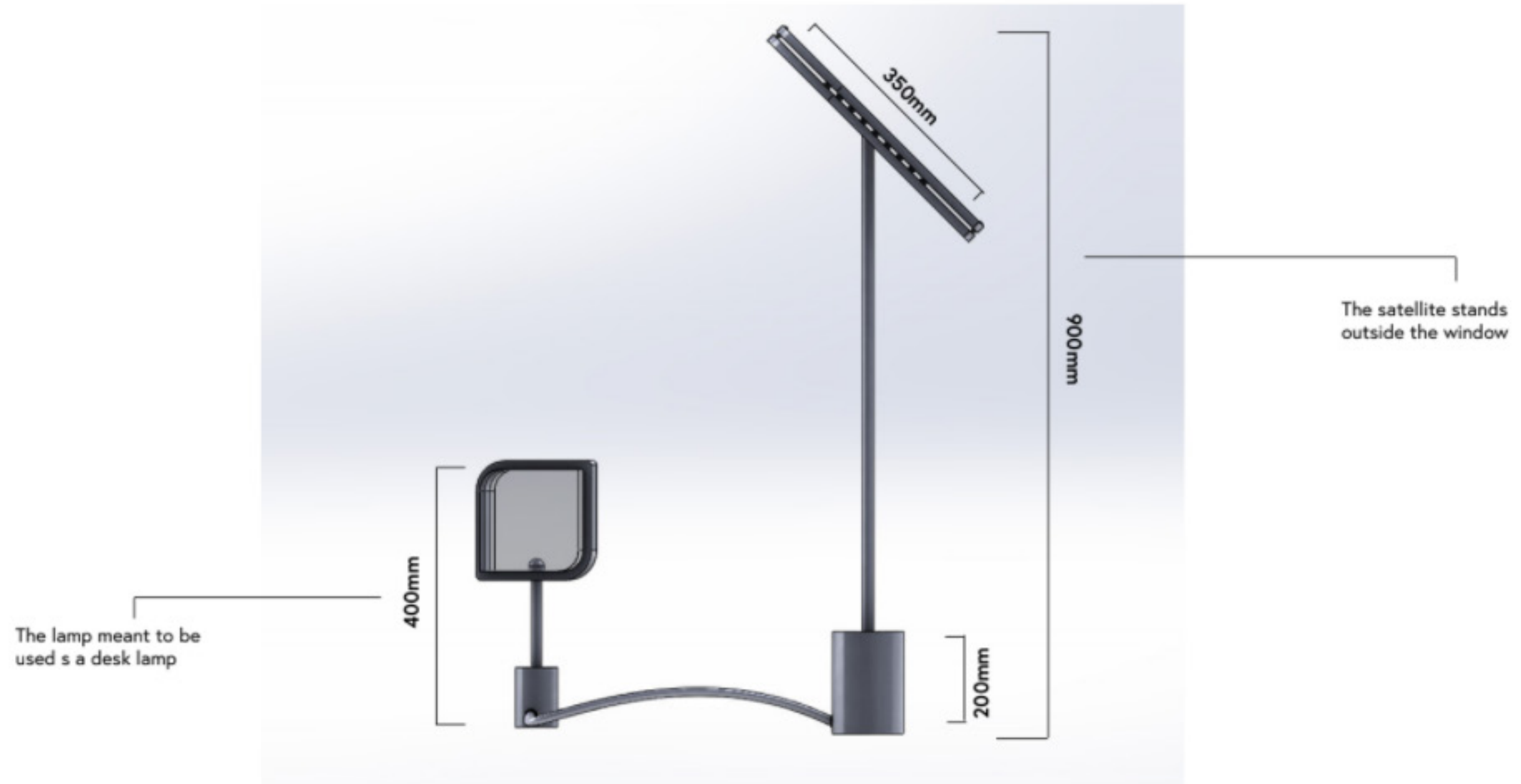


Aluminium screws to close the glass inside the frame



# Episode 5: Design

## Measurements

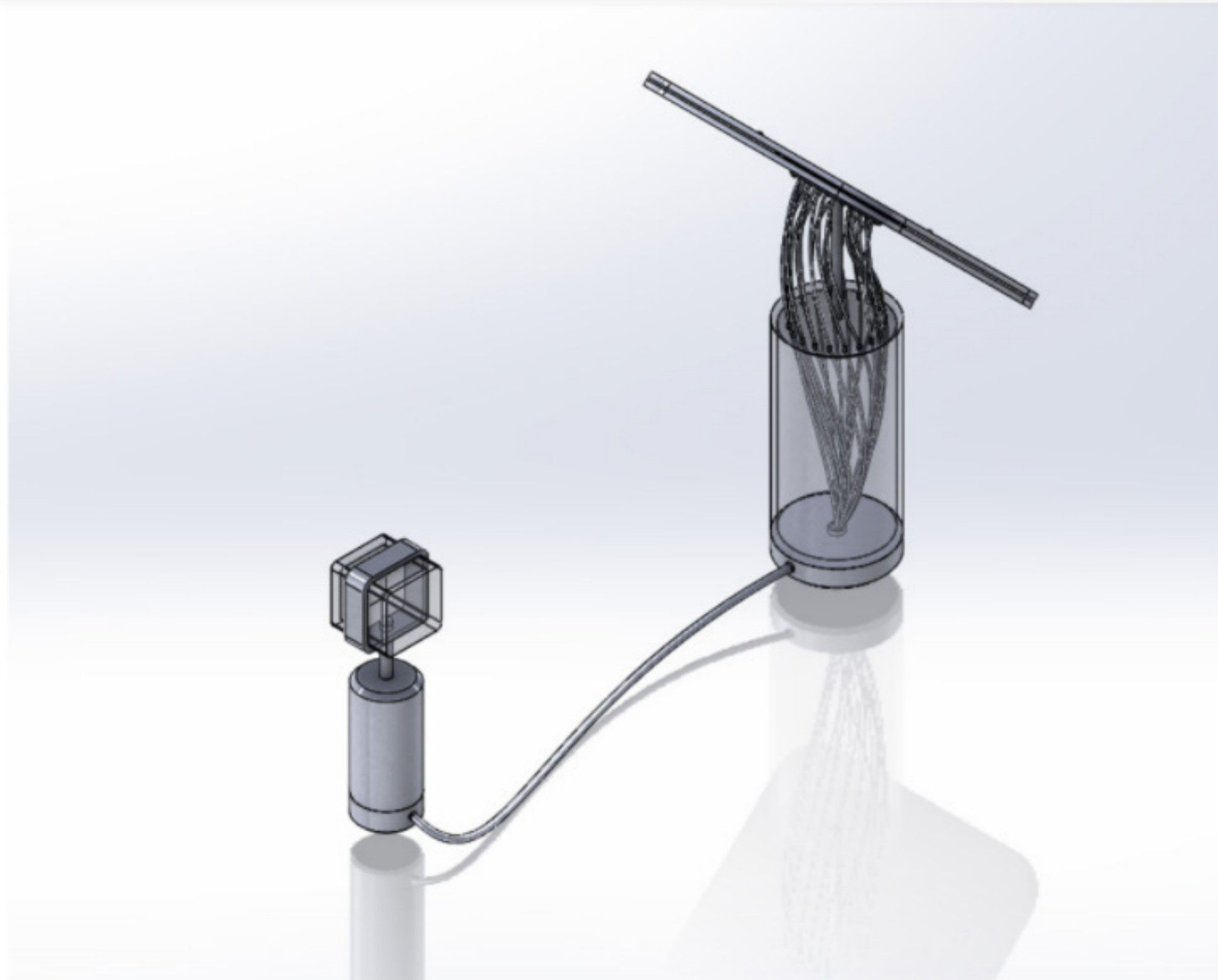




## **Episode 6: Final Design**

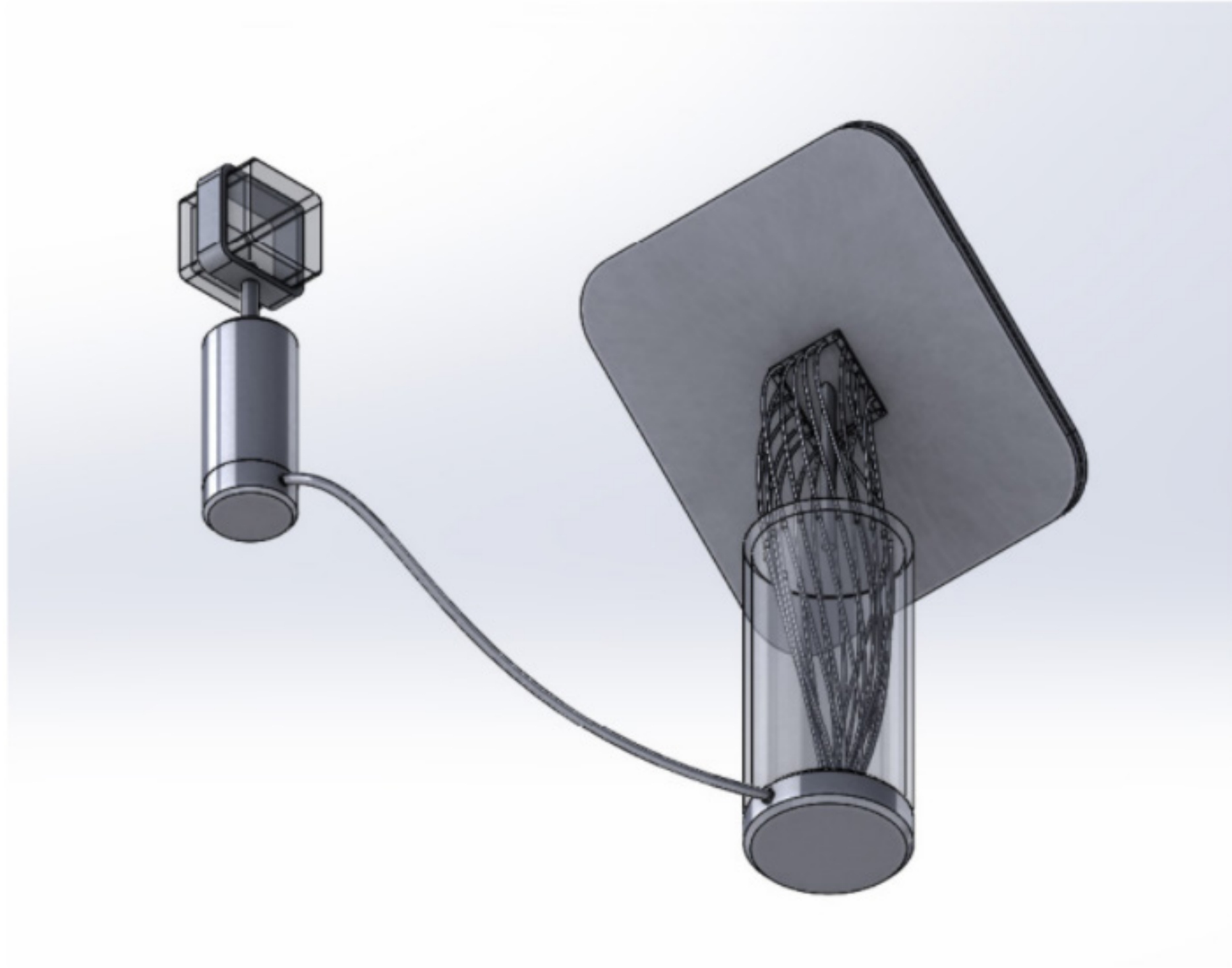
**Coming up with a design that emphasizes the functionality, the amount of fibers, the energy, but still remains aesthetic and resembles roots of a tree, or a flower.**

## Episode 6: Final Design





## Episode 6: Final Design



## Episode 6: Final Design



## Episode 6: Final Design



## Episode 6: Final Design

