

# 2017 SUMMER DESIGN WORKSHOP

cape

Campus

Asia

Plant

Environment innovation

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# CHINA

MOSS

+

LED

CHIBA UNIVERSITY





### Overview

The 2017 Summer Workshop of Campus Asia Plant Environment innovation (hereinafter referred to as CAPE) was held in Zhejiang, China, in collaboration with Zhejiang University (China), Yonsei University (Korea), and Chiba University. In addition to that, Ningbo KLITE Electric Manufacture Co., Ltd. observed the workshop.

### Background

In recent years, the popularity of growing moss and observing moss have been growing in Japan. Although its relative difficulties in growing in artificial environment, moss has been used in a number of horticultural and even in electric appliances. Moss balls, terrarium, and mag-lev air bonsai are some of the few examples. KLITE, a Ningbo-based lighting manufacturing company, on the other hand, has been known for its OEM products.

### Pre-workshop assignment

Previous to the workshop, total of 80 ideas were collected from Chiba University students. Selected seven ideas were presented to all participants in the first day, and used as starters for the ideation process in each team.

### Assignment

The potential of products regarding the integration of LED lights and moss (Bryophyte) was to be discovered. With the ambition of KLITE to create new products, students were asked to create a completely new synergy of moss and lamp.







### Horticultural tips on Moss

The followings are the six main considerations on growing moss in artificial conditions.

- 1° To grow moss, certain amount of light source is needed: but not too strong. The best amount of light for moss is just the amount of light required to read books.
- 2° You need soil to grow moss. Unlike other plants, hydroponics technology does not work for moss.
- 3° Water must be supplied from top: not from roots. Misting is the best way to water moss.
- 4° Moss requires ventilation. Moss hates wind.
- 5° Moss should not be moved.
- 6° If the container that contains moss is sealed up and the sunlight is provided, the container gets moldy. Growing the moss is all about fighting the mold. Low humidity is preferred. In general, moss thrives in dry environment.

### Teams



1

Li Hongwei (Chn)  
Xin Liu (Chn)  
Li Jiaji (Chn)  
Yu Tieli (Chn)  
Hwang Daeun (Kor)  
Mori Sayaka (Jpn)



2

Chen Zhen (Chn)  
Liu Haoyuan (Chn)  
Li Rui (Chn)  
Sun Xia (Chn)  
Oh Byoungkwan (Kor)  
Bae Inho (Kor)  
Liu Minghui (Jpn)



3

Guo Yi (Chn)  
Chuqi Tang (Chn)  
Fu Zhenghao (Chn)  
Zhang Jiahui (Chn)  
Kim Siwoo (Kor)  
Joo Youngho (Kor)  
Mizuide Yuto (Jpn)



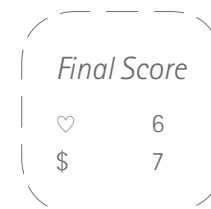
4

Lu Sumiao (Chn)  
Si Weiqi (Chn)  
Cai Guangxi (Chn)  
Kim Sehrom (Kor)  
Lee Sang Hyun (Kor)  
Iju Chinatsu (Jpn)



5

Han Bo (Chn)  
Huanug Xue (Chn)  
Liu Yaxi (Chn)  
Shiqing Zhang (Chn)  
Gombodoo Nyamsuren (Kor)  
Watanabe Hayato (Jpn)



Example of score

### Scores

At the end of the presentation, students and lecturers were prompted to vote for their preferred design proposals in two criteria. The first criterion, "love" ♡ vote went to the design that the person loved, would like to buy, and wanted to use by their own. The second criterion, "investment" \$ vote went to the design with the best chance of gaining business success, through the eyes of investors. The final votes of designs are indicated in each page as exemplified on the left.

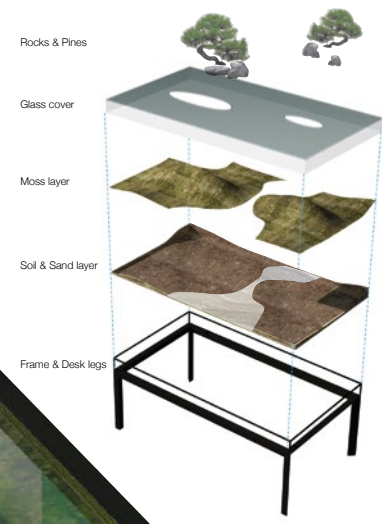




1

### *Kare-san-sui Table.*

With its fundamental beauty of moss in mind, Team 1 proposed a desk that could possibly heal the mind of hardworking officeworkers. On top of the desk, a micro-scale Japanese Kare-san-sui garden is laid down, using moss and sands. The protecting glass on top of them has several holes, allowing some parts of the microgarden to rise upon the surface of the table to form plateaus. The hole can be used to mist the moss as well.



### *Final Score*

♡ 6  
\$ 7

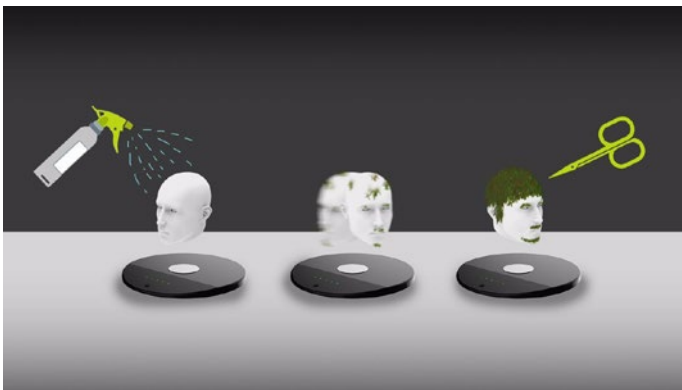




2

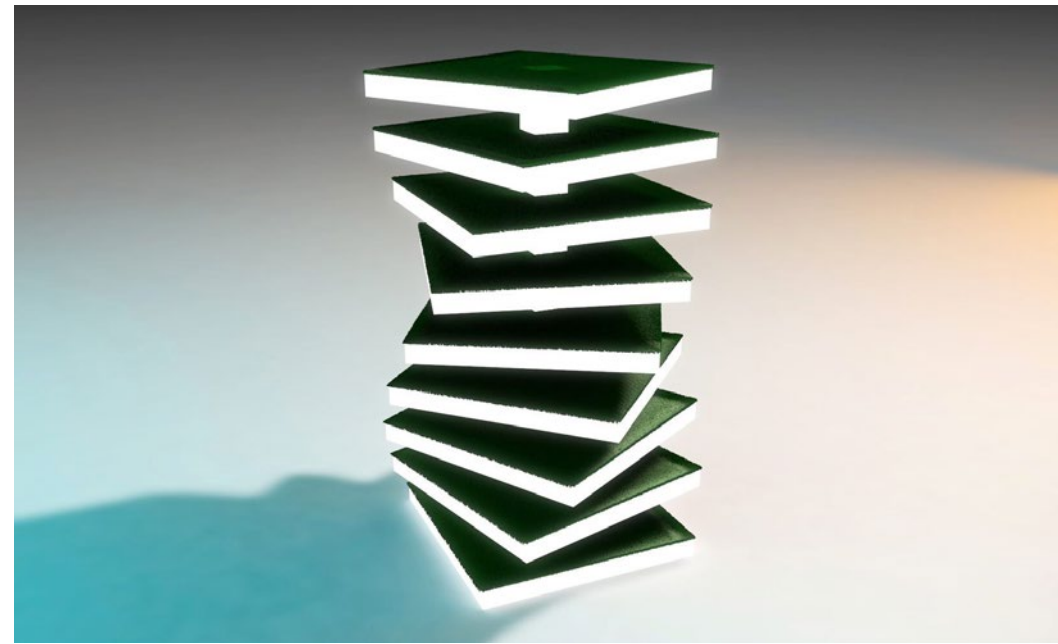
*Moss Head.*

Targetted for people who suffers from loneliness in living alone, Team 2 proposed a floating plaster figure, with its hair made of moss. This mag-lev figure rotates freely to create pet-like approachability. Moreover, the product secures the house from illegal intruders by its bizarre looks while the 'master' is away from home.



*Final Score*

♥ 4  
\$ 6



3

*GIO.*

Desk lamp that make most of the functionality of moss. Team 3 combined the biological behaviour of moss to clean the air and charcoal that can passively dry the air. An LED lighting panel, a sheet of charcoal, and a sheet of living moss are layered together to consist a lighting module. The modules are spaced together, and layered vertically for more efficiency in cleaning and drying. Each layers can be rotated individually, providing sensational pleasure of fidgeting.

*Final Score*

♥ 8  
\$ 3



# 4

## Moss seat.

A product to encourage men to take a step forward when using men's public lavatory. For some people from specific cultural background, moss is often associated as dirty and unhygienic. To make most of these negative images, the product prompts the user to approach and get closer to the urinal by surrounding it with moss seat.

### Final Score

♡ 6  
\$ 9



1. Find an empty urinal to pee.



2. Stand on the half-moon-shaped empty space.



3. Pee.



# 5

## T-Moss.

A product to ease the grief of the bereaved family, provided through funeral director. After the cremation, the bereaved mixes ashes with soil and form it into spherical shape. As the moss grows all over the soil and the ashes, then covers whole product, the grief is also covered and easen over time.

### Final Score

♡ 10  
\$ 8

1. Mix ashes of the deceased and soil to form a ball.
2. Put the ball on the holder.
3. Find somewhere to put the holder.
4. When you miss the deceased,



5. mist the moss and storage your mourning.
6. As the time goes by, the ball breaks into pieces.
7. The moss eventually covers the ball and the holder.
8. Storage your sadness and cover it.



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**KLITE**<sup>®</sup>  
凯耀照明

2017

3rd CAPE Summer Design Workshop: LED + Moss

CHINA

AUG 5 – 9, 2017

CHIBA UNIVERSITY JAPAN

YONSEI UNIVERSITY KOREA

ZHEJIANG UNIVERSITY CHINA

