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## Education

- 2013.3 - 2018.2 KAIST (Korea Advanced Institute of Science and Technology)  
Undergraduate, Department of Industrial Design
- 2010.2 - 2013.2 KSA (Korea Science Academy)

## Academic Experience

- 2018.4 **Demonstration, CHI 2018**  
Hapcube: A Fingertip-Sized Tactile Device Providing 2+1 Dimensional Pseudo-Force Feedback  
-Hwan Kim, HyeonBeom Yi, Hyein Lee, and Woohun Lee, ID KAIST
- 2017.9 **Research for CHI 2018 Papers Submission as 3rd Author**  
Hapcube: A Wearable Tactile Device to Provide Tangential and Normal Pseudo-Force Feedback on a Fingertip (Accepted)  
-Authors: Hwan Kim, HyeonBeom Yi, Hyein Lee, and Woohun Lee, ID KAIST  
Grip-Sensing Controller for VR Game: Mimicking User's Real-World Behavior  
-Authors: HyeonBeom Yi, Hwan Kim, Hyein Lee, and Woohun Lee, ID KAIST
- 2012.12 **Student Researcher**  
Service Design Strategy of Banking Delivery Channels Based on Analysis of Service User's Behavior  
-Advisor: Kyung-Won Chung, ID KAIST
- 2012.5 **Presenter, Science Academy R&E and Superior Research Joint Conference**  
The search of Binary Stars in Open Cluster with CCD Observations  
-Advisor: Hee Soo Kim, Dept. of Earth Science Education , KNU(Kongju National University)
- 2010.12 **Student Researcher**  
Analysis of Ionosphere according to seasonal and latitudinal variations with SID Monitor Observations  
-Advisor: Sun Mie Park, Dept. of Physics & Earth Science, KSA
- 2009.2 **Student Researcher**  
Albizia Fruit Fossils from the Miocene Duho Formation of Yeonil Group in the Pohang Basin, Korea  
-Advisor: Jong-Heon Kim, Dept. of Earth Science Education, KNU

## Tools

PHOTOSHOP, ILLUSTRATOR, AFTER EFFECT, PREMIERE, RHINO, INVENTOR, ARDUINO, PROCESSING, INDESIGN, KEYSNAP

## Personal Experience

- 2016.3 - 2016.6      **Buddy of Exchange Student (Best Buddy)**
- 2015.8 - 2016.1      **Exchange Student in Ecole Centrale Paris**
- 2014.6 - 2014.9      **KOSAF(Korea Student Aid Foundation) Dream Challenger**  
-Arduino Education Project Team sponsored by KOSAF  
-Visit Europe(UK, Belgium, Germany, Italy)
- 2013.2 - 2018.2      **Acoustic Singing Club of KAIST 'Sixline'**  
**Cooking Club of KAIST 'Goong Mat'**  
**Model Club of KAIST 'MOKA'**
- 2012.8                  **KSASF (KSA Science Fair) 2012 Vice Director**
- 2011.7 - 2011.8      **Complete a 'Astrophysics' course in MITY (Minnesota Institute for Talented Youth) at Macalester College in USA**
- 2011.3                  **Buddy of Exchange Student from NUS High School in Singapore**
- 2010.11                **Buddy of Exchange Student from G.T college in Hong Kong**
- 2010.9 - 2011.5      **Leader of Education Volunteer Club 'Pure'**
- 2010.7                  **Volunteer in Mongolia**  
-Educational Service (Computer, Korean)  
-Mural Work
- 2010.3 -2012.12      **KSA Student Union**
- 2010.2 -2011.12      **KSA Orchestra**
- 2010.2 -2011.12      **Astronomical Observation Club 'Along Starlight'**
- 2010.2 - 2013.2      **Dance Club 'Star Storm'**

# FLOVIE

YEAR

2017

ADVISOR

Seok-Hyung Bae

CLASS

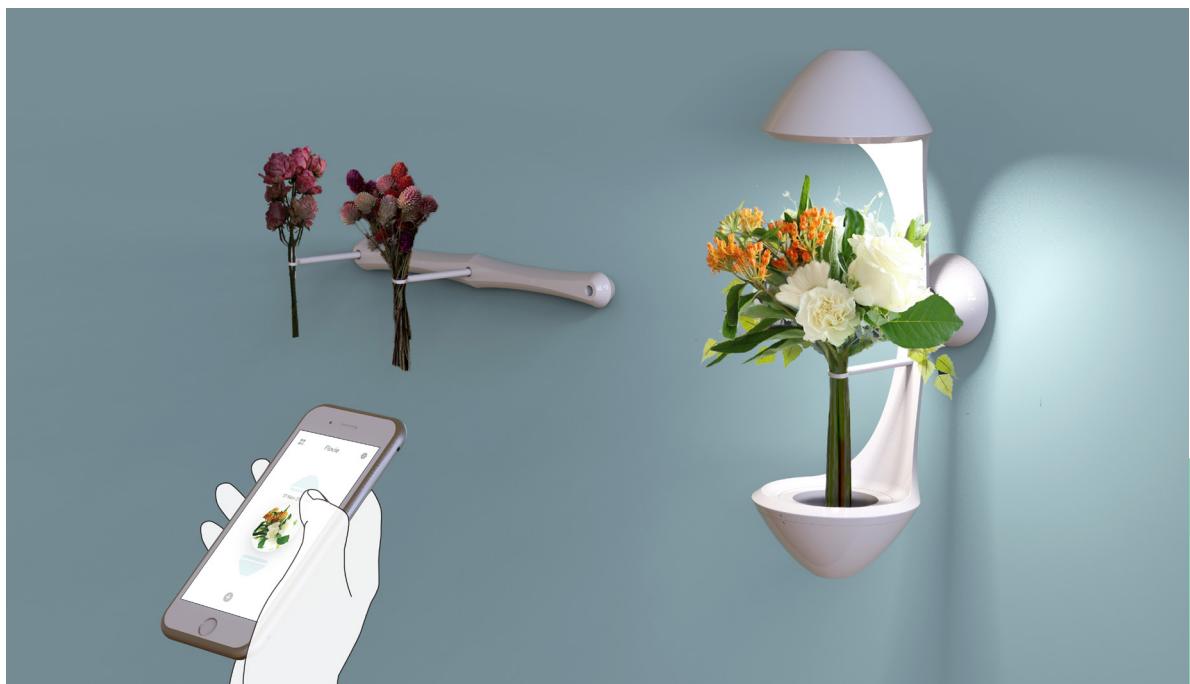
Graduation Design Studio

DESCRIPTION

Flower Keeping System system that cares and captures every moment of flower. It is a subscription service supplemented by an IoT vase that helps users experience flower bouquets longer and deeper.

LINK

<https://idkaistgradshow.com/flovie/>



## Life with Flovie

A beautiful flower bouquet makes everyone happy but not for a long time. It not only droops quickly but is bothersome to throw out as well. Flovie is a subscription service supplemented by an IoT vase that helps users experience flower bouquets longer and deeper.

### 플로비와 함께하는 일상

이름다운 꽃다발은 받는 이를 미소짓게 합니다. 그러나 꽃은 관리가 어렵고 빨리 시들어 이를 버리는 것도 번거롭습니다. 플로비는 IoT 꽃병, 모바일 애플리케이션, 꽃 구독 서비스와 함께, 꽃을 단기간만 소비하는 것이 아닌 생활부터 드라이플라워까지, 바쁜 일상에서도 꽃을 온전히 즐길 수 있도록 도와줍니다.



꽃을 주기적으로 촬영

Takes Photoes Regularly

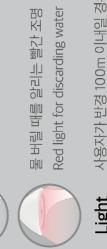
이미지 분석으로 꽃의 상태 인식

Image Analysis



풀어줄 때에는 파란 조명

Blue light for replacing water



풀 버릴 때에는 빨간 조명

Red light for discarding water

사용자가 반경 100m 이내일 경우 조명 켜짐

Light on when user is within 100 meters

홀더가 부착되면 관리 시스템

Initiation of care system

IoT Vase  
벽걸이 IoT 꽃병

Water Container  
물통

Holder  
풀 필요한 접촉으로 생활이나 드라이플라워가  
버스라지는 것을 방지

Prevent damage of lively and dry flowers by  
minimizing touch

Subscription Box

## Automatic Rotation for Dry

생화를 충분히 즐기고 드라이 할 수 있도록 이미지 분석을 통해 꽃이 시들기 전에 알림  
Alarm night before flower is ready to dry through image analysis  
사용자가 물을 바리면 자동으로 180도 회전  
Automatic 180 degrees rotation after discarding water

The diagram shows a circular flow:

- LIVELY FLOWER**: Represented by a pink rose.
- DRY FLOWER**: Represented by a dried rose.
- Storing Flower**: Represented by a vase containing dried roses.

## Capture Flower

## Mobile Application

드라이플라워는 collect bar에 모으거나,  
홀더 풀의 자석으로 인테리어 소스로 활용  
Store dry flowers on the collect bar or  
utilize as magnetic interior decoration

## Collect Bar

드라이플라워는 collect bar에 모으거나,  
홀더 풀의 자석으로 인테리어 소스로 활용  
Store dry flowers on the collect bar or  
utilize as magnetic interior decoration

5

# NATIONAL SCIENCE MUSEUM

YEAR

2017

ADVISOR

Kun-Pyo Lee

CLASS

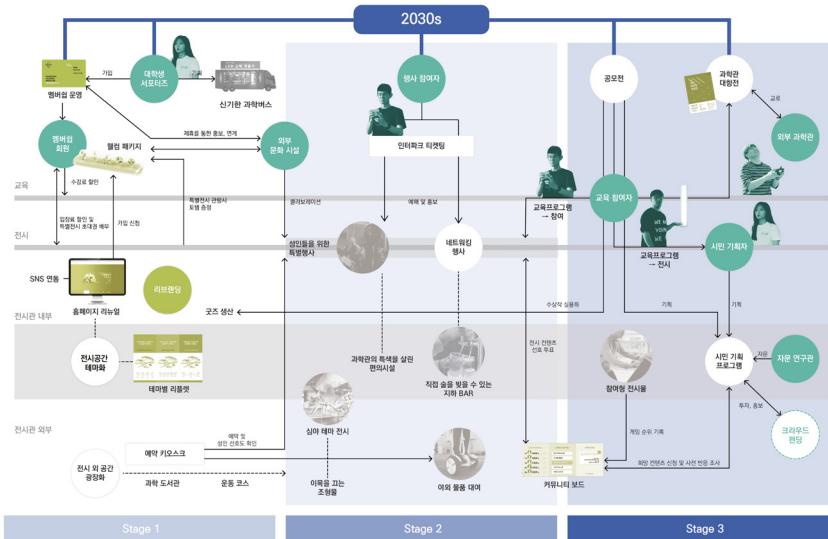
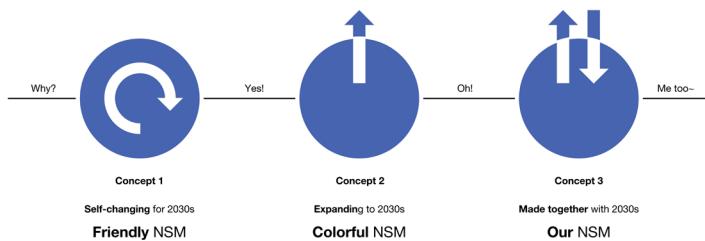
System Design

TEAM MEMBERS

Byeongjun Kim, Byungmin Kang, Boeun Park, Hyungjun Cho

DESCRIPTION

Propose 3 Stage Concepts for young adults without kids to revitalize the science museum and popularize science.



Current Homepage  
Administrative agency + Exhibition

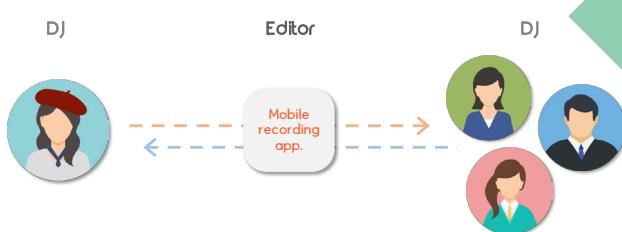
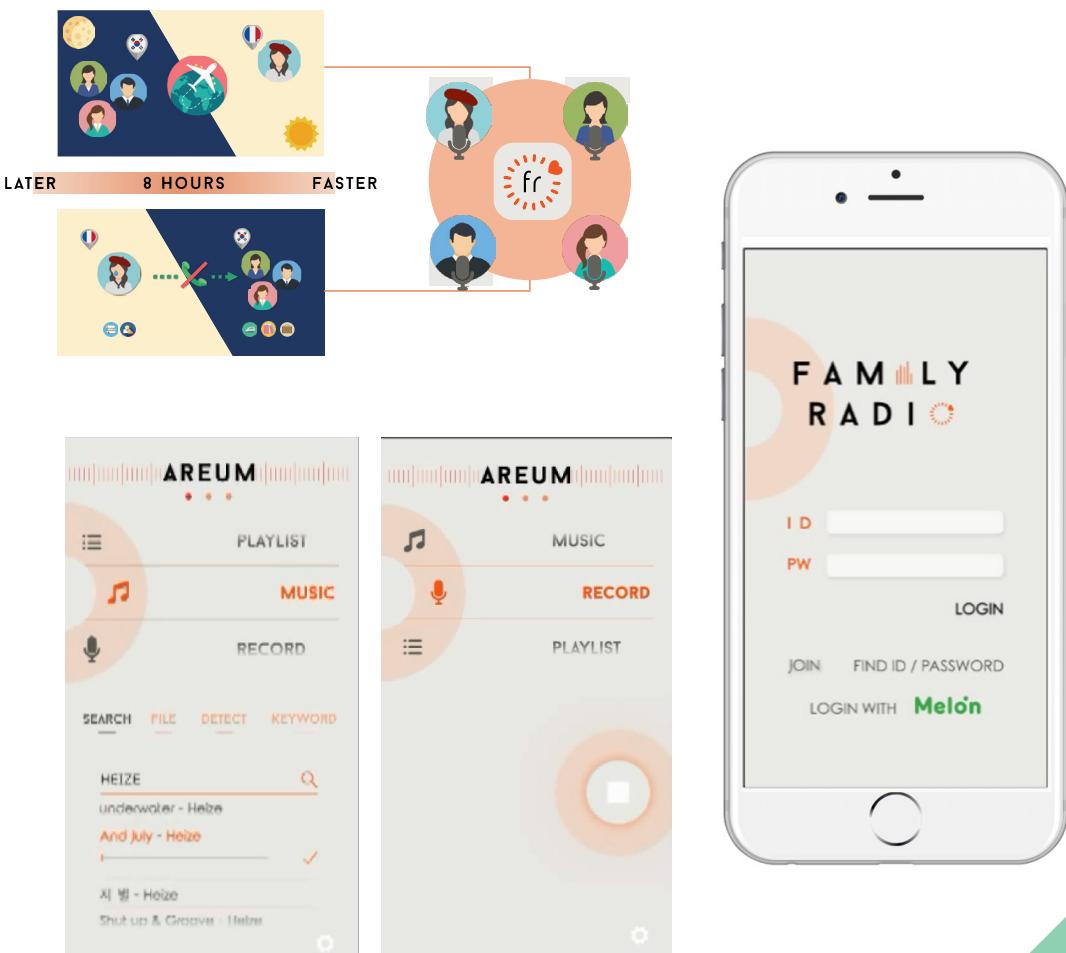


Renewal Homepage



# FAMILY RADIO

YEAR	2016
ADVISOR	Youn-Kyung Lim
CLASS	Product Design Program
TEAM MEMBERS	Eunsol Cho, Yura Seo, Choosing Chang
DESCRIPTION	Radio Application for separated family. Giving emotional connection between family, they can forget physical distance between them.



# MARTIAN PONG

YEAR  
ADVISOR  
CLASS  
DESCRIPTION  
LINK

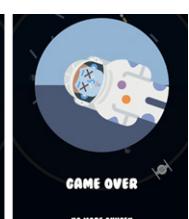
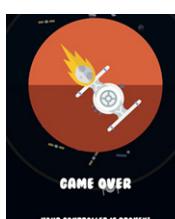
2016

Tek-Jin Nam

Interaction Prototyping

Tangible Pong Game. The goal of martian pong is saving the martian and way to save him is same; make him and space-craft meet.

<https://vimeo.com/271749952>



# MIRROR MIRROR

YEAR  
ADVISOR  
CLASS  
DESCRIPTION

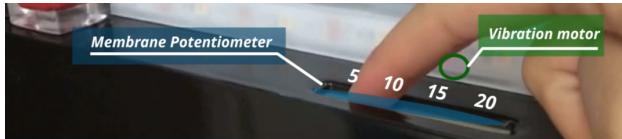
PARTS

LINK

2016  
Tek-Jin Nam  
Interaction Prototyping  
Smart Mirror  
that helps Morning Make UP

Ultrasonic Sensor,  
LED, PIR Sensor,  
Membrane Poten-  
tiometer, Vibration  
Moter,  
Servo Moter

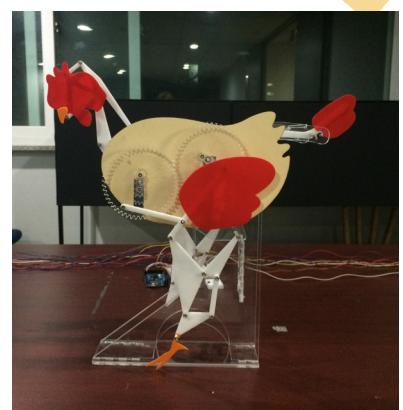
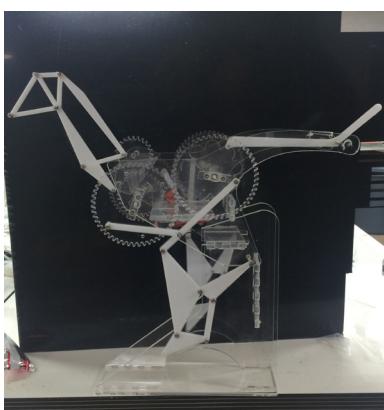
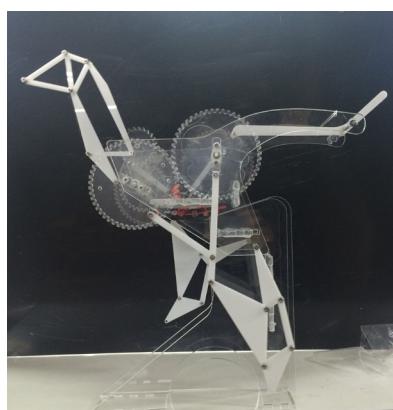
[https://vimeo.com/  
271697484](https://vimeo.com/271697484)



# WALKING CHICKEN

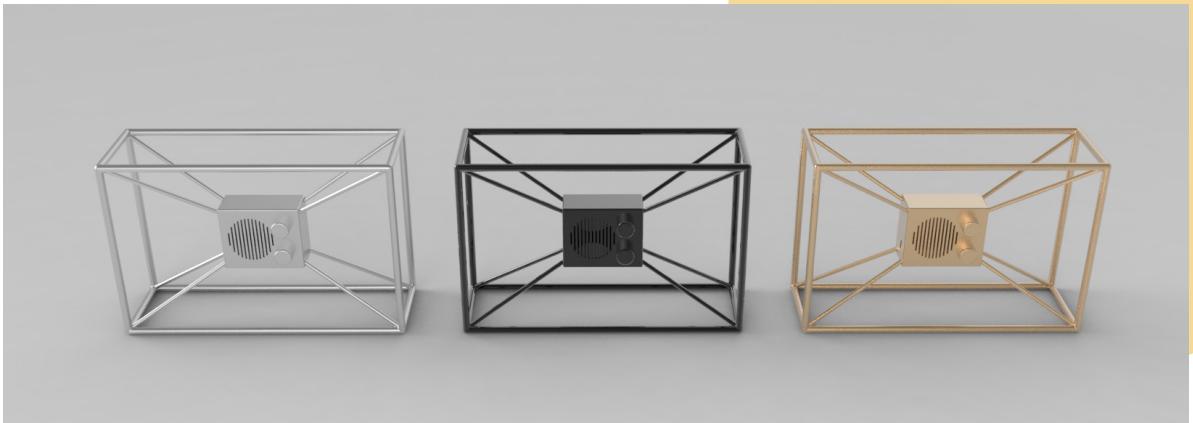
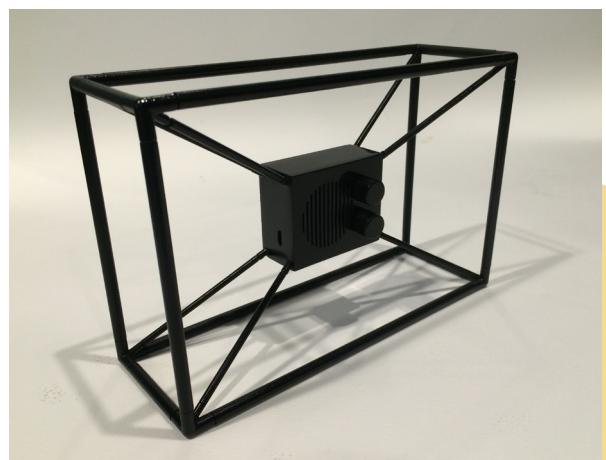
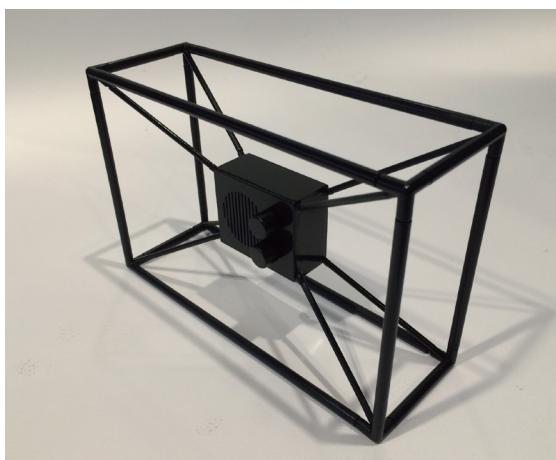
YEAR  
ADVISOR  
CLASS  
DESCRIPTION  
LINK

2014  
Seok-Hyung Bae  
Product Design Engineering  
Smart Mirror that helps Morning Make UP  
[http://www.youtube.com/watch?v=YBW5HBRZwzw&fea-  
ture=youtu.be](http://www.youtube.com/watch?v=YBW5HBRZwzw&feature=youtu.be)



# RADIO

YEAR	2015
ADVISOR	Woohun Lee
CLASS	Product Design Factors
DESCRIPTION	Wire Frame Radio
TECHNIQUE	3D printing, CNC milling, Spray Paint, Milling Machine



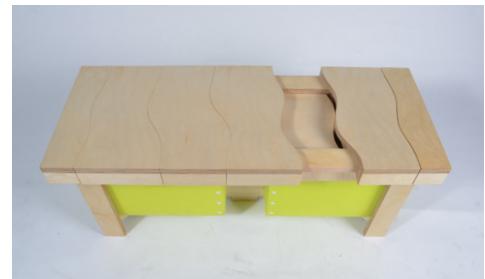
# CHAMBER OF SECRET

YEAR 2014

ADVISOR Sang-Min Bae

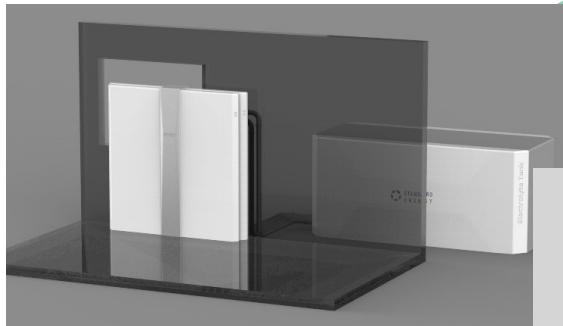
CLASS Product Design Fundamentals

DESCRIPTION Indoor chair with secret locker. By sliding the seating plates, people can access to the storage boxes. There are two storage boxes; one could be accessed easily while the other one can't be. People can hide their 'secret' items in the latter one.



# REDOX FLOW BATTERY

YEAR	2016
COMPANY	Standard Energy
DESCRIPTION	Design Large Battery in Standard Energy as Intern. Played a Leading Role in Sketch, Modeling, Rendering, and Choosing Materials suited for CI.

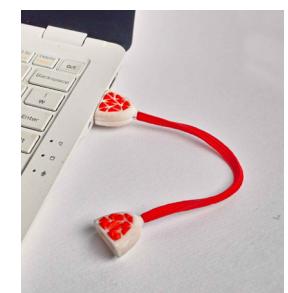


FINAL  
RENDERING  
IMAGE



INSTALLED  
REAL  
BATTERY  
PRODUCT  
IN  
PLANT

## USBracelet



YEAR  
ADVISOR  
CLASS

2015  
Daniel Saakes  
CAD & 3D Modeling

## SPARROW MUG



YEAR  
ADVISOR  
CLASS

2014  
Hyeon-Jeong Suk  
Two-Dimensional Design

# KINECTIC TYPO VIDEO

YEAR	2016
ADVISOR	Minkyeong Park
CLASS	Moving Image Design
DESCRIPTION	Kinetic Typography Music Video with 3D effects and Keyshot Animation [BGM: Russian Roulette by Red velvet]
TOOL	AfterEffect, Premiere, Keyshot
LINK	<a href="https://vimeo.com/271698250">https://vimeo.com/271698250</a>

