

APP Design
02/2016-06/2016

ToPic

Go to the peak

This APP aims to aid users when they are taking online courses and let them simply share, dicuss and evaluate the ideas.



1 Problem



I have to **pause** and **copy all** the ideas on the screen...



I have to take note book and smart phone even when I am on the subway. There is **no space** for me and I always **lose** some pieces...

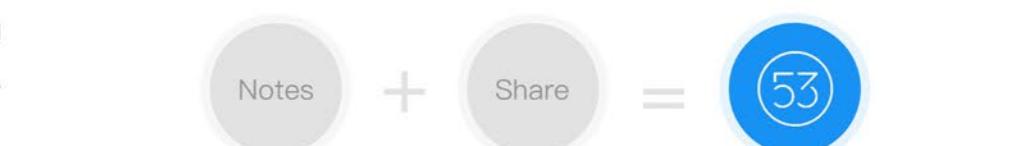
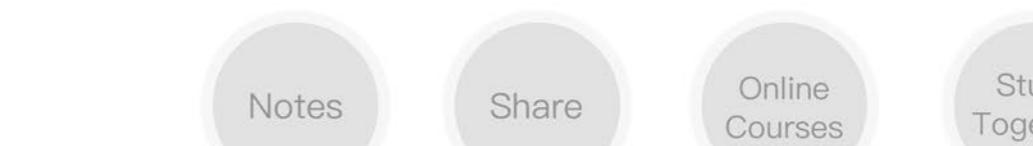


I can not take my note with me **everywhere** and it is **hard to collect** other people's opinions...

AS online education becomes hotter nowadays in China, the needs of sharing ideas and discussing the courses significantly increase. People are watching videos on the subway or in the library and the inconvenience is bothering them for each part of studying. They need a place to write down their notes, to summarize, to discuss, to comment and to share.

2 Analysis

2.1 Competitive Product Analysis

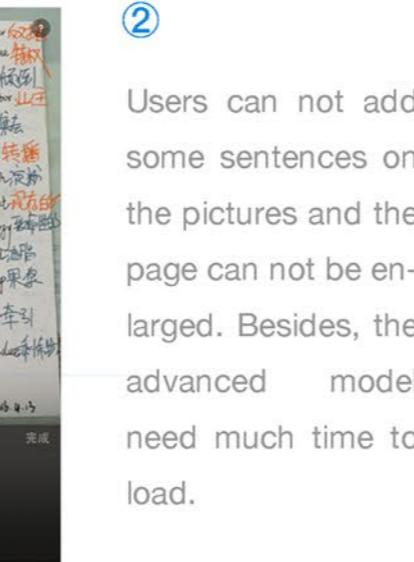


2.1 Competitive Product Analysis

①



Natural and fluent interaction patterns make the APP more attractive than others. It feels like doing some gesture on a piece of paper. However, only one picture can be added to the note.

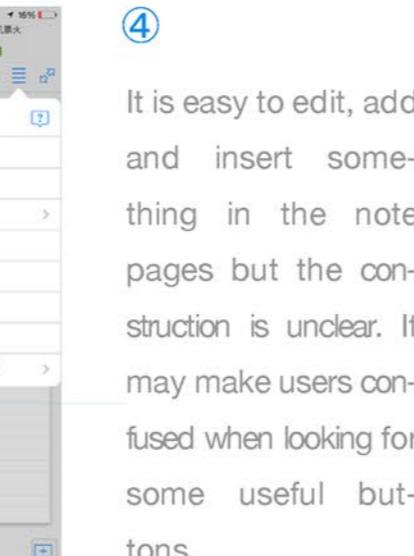


③



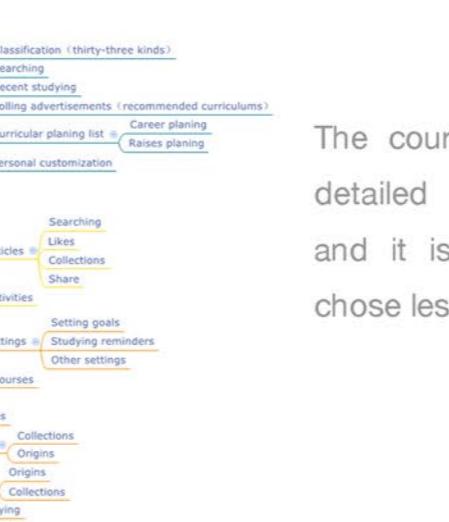
There are many buttons to meet users' needs which are all in the same page.

However, it makes the page looks a bit redundant.



②

Users can not add some sentences on the pictures and the page can not be enlarged. Besides, the advanced model need much time to load.



It is inconvenient to find the taking-note button. However, it is good to give user a screen capture when they are writing.

④

It is easy to edit, add and insert something in the note pages but the construction is unclear. It may make users confused when looking for some useful buttons.



The layout of the page is unclear with too much partitions.



It is inconvenient to find the taking-note button. However, it is good to give user a screen capture when they are writing.

2.2 Data

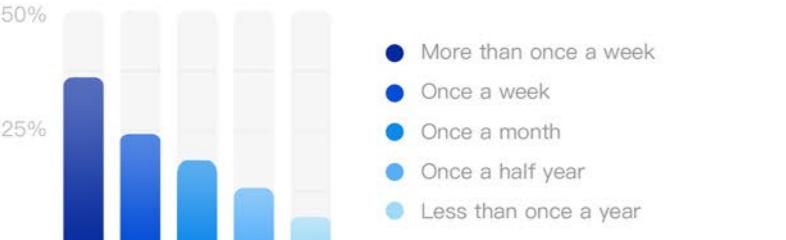
Are people familiar with online courses?



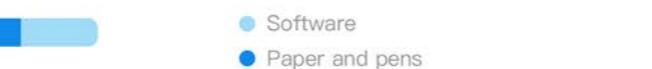
How would people accept the online courses?



How often do people take online courses?



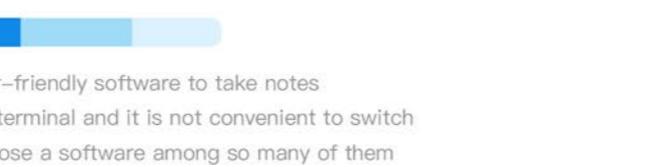
How do people take notes when learning online courses?



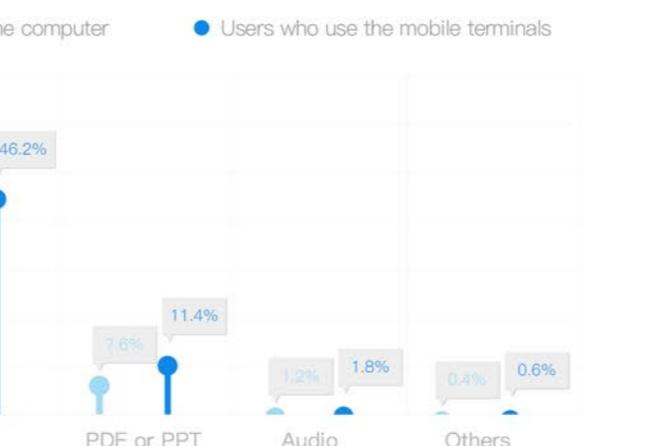
How do people watch video on the mobile terminals?



Why do people not use software to take notes?



What methods and what kinds of courses do people take



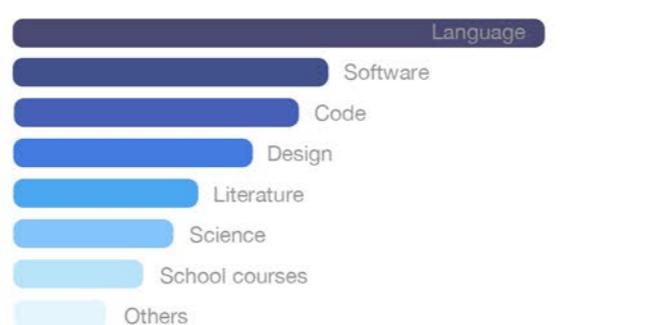
How do people think about taking online courses?



What would people do when they are taking courses?



What kind of courses have people ever taken?



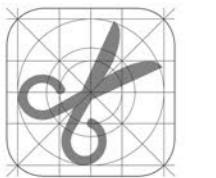
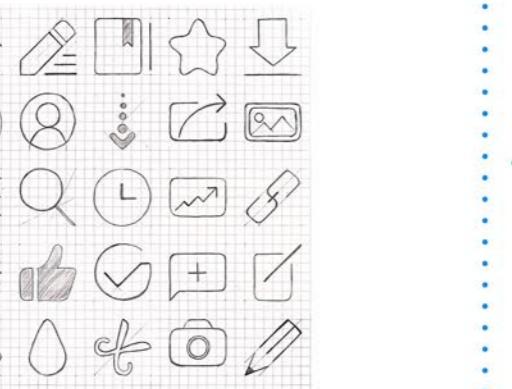
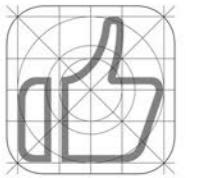
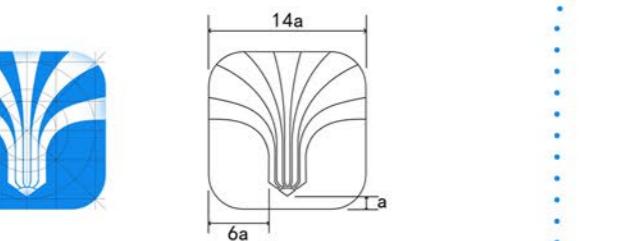
2.3 Information Architecture



3 Project

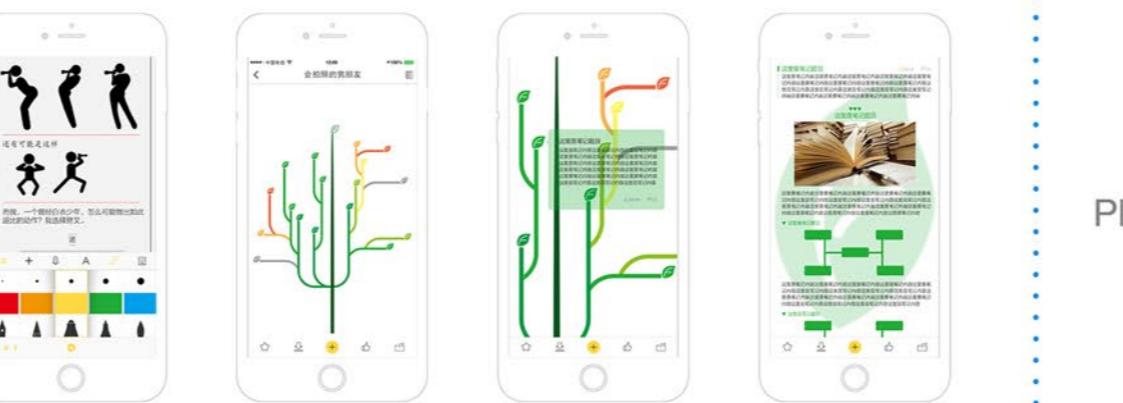
3.1 Logo & Icon

The logo and icon are designed according to the iOS UI rules.



3.2 Plans

Plan ①



Plan ②



Plan ③



Plan ④



① This is an idea to build a fluent APP for taking notes when watching videos. However, it is not convenient to type the address of the video website.

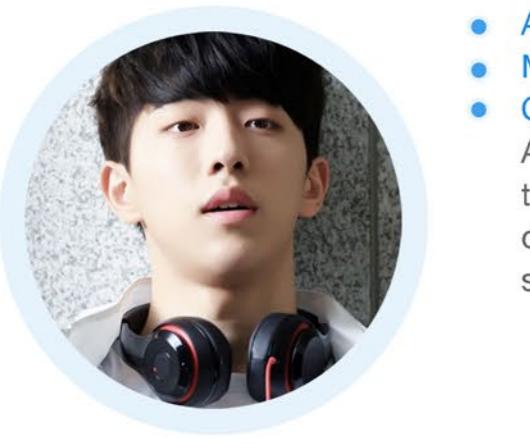
② This is an simple one to match the need for taking notes whatever terminal the users choose to watch their online courses. However, it is too simple to attract users to download one which may take their precious space.

③ This is a much more mature one compared with the others because users can write down their ideas and share them easily. However, there are also much bug in this version like the way to organize the summary balls.

④ This one has revised the disadvantages in the third one and redesigned the organization of the way to show the branches of the knowledge tree.

4 Design

4.1 Persona



- Name Jason Li
- Age 23
- Major Communication engineering
- Condition

As wanting to become a interaction designer he takes interaction courses and GRE lessons online together with his girlfriend. They need to share the note and experience in english learning.

NEEDs

Learning courses about interaction design. ●

Taking notes when studying. ●

Sharing notes and experience with others. ●

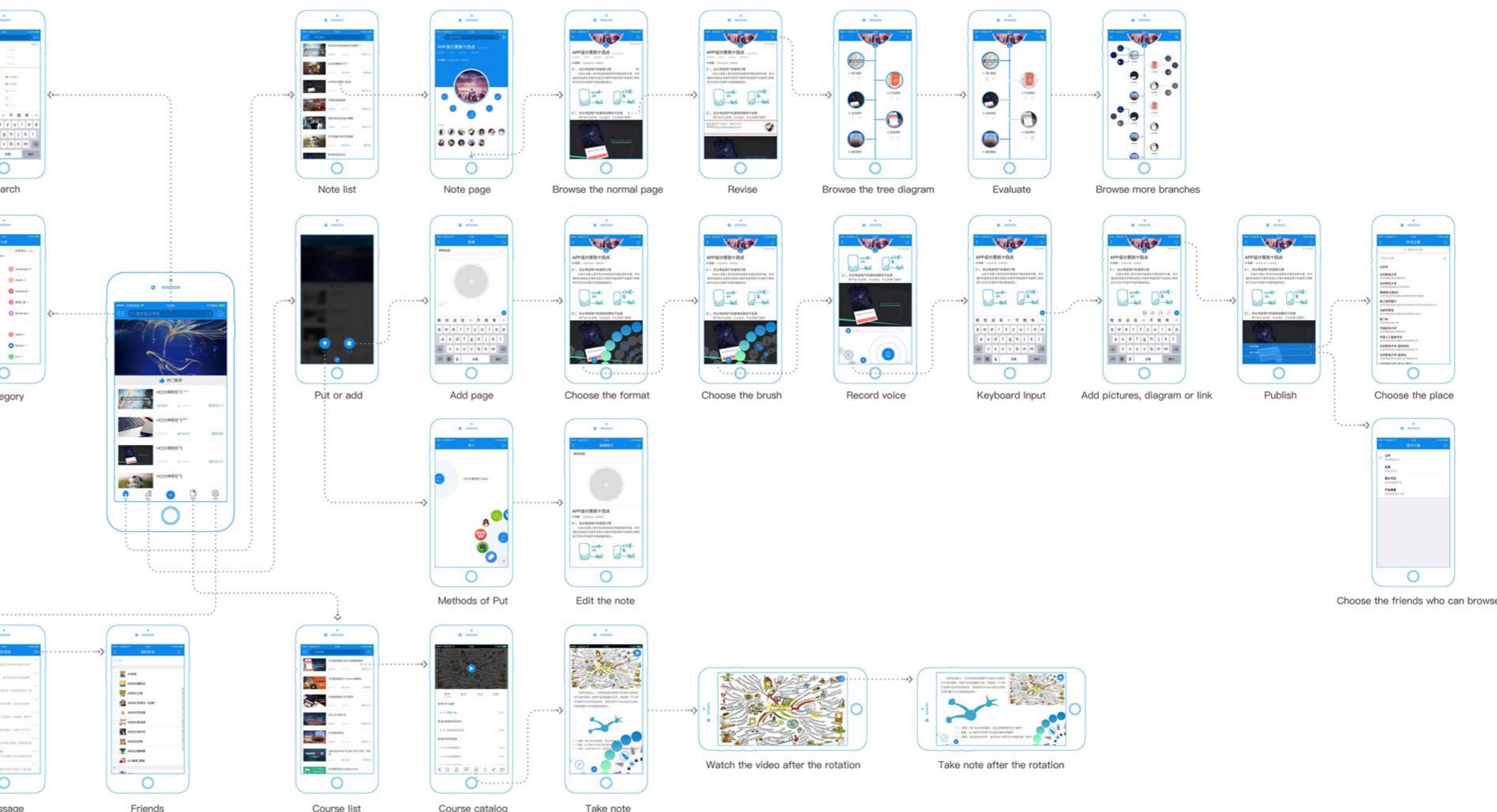
Getting to know the advantages and disadvantages about his own notes. ●

Communicating with other people who are taking the same course. ●

4.2 Sketch



4.3 Flow Model



4.4 Interface analysis-Browse and evaluate



Note page

This is the first page for the note with the title, picture and the users who have written down their ideas on it.



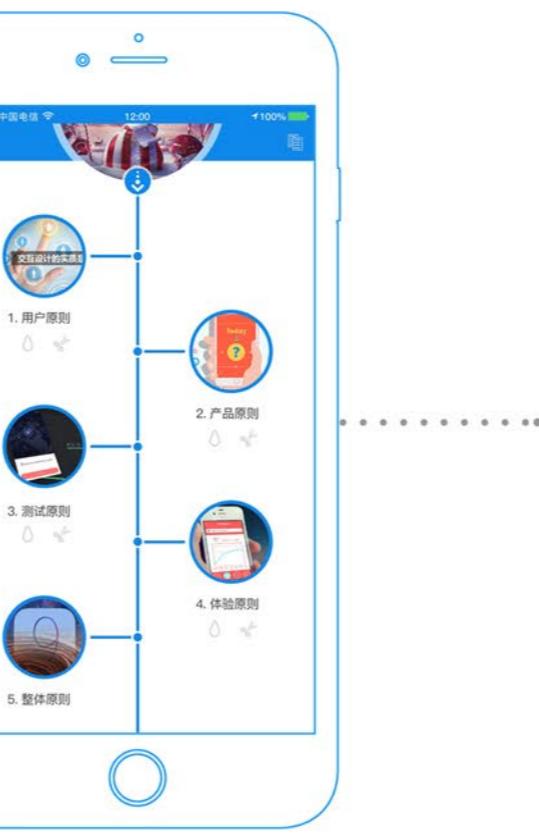
Browse the normal page

This is the body page of the note and the users can choose to water or trim or advise how to revise the ideas.



Revise

Users can type their opinions in the red box and the ideas will be marked by their photos so that the responsibility is clear.



Browse the tree diagram

Users can also choose to look through the tree-like construction of the note for the deeper comprehension. The chapter will be showed as a branch(ball) each.



Evaluate

Users can click the water or trim button to evaluate the ideas on the branches and the branch will turn gray and disappear at last if there are so many users click the trim-scissors. Besides, dark blue means this branch is health and liked by many people.



Browse more branches

Users can zoom to learn more branches and evaluate it or click to turn to that page.

4.5 Interface analysis-Add a new note



Choose the format

Users can choose the format, font, size and the color of the sentences of the note in order to express their ideas and organizing them logically.

Choose the brush

Users use their left thumb to choose the input style by sliding and using the right thumb to choose the format.

Record voice

Users can also record their voice or import a piece of record in their phones.

Add pictures, diagram or link

There is another button to insert the pictures, the links and the diagrams so that the users can fully express their ideas.

4.6 Interface analysis-Take note when learning online courses



Course catalog

Watch the video after the rotation

Take notes

Take note after the rotation

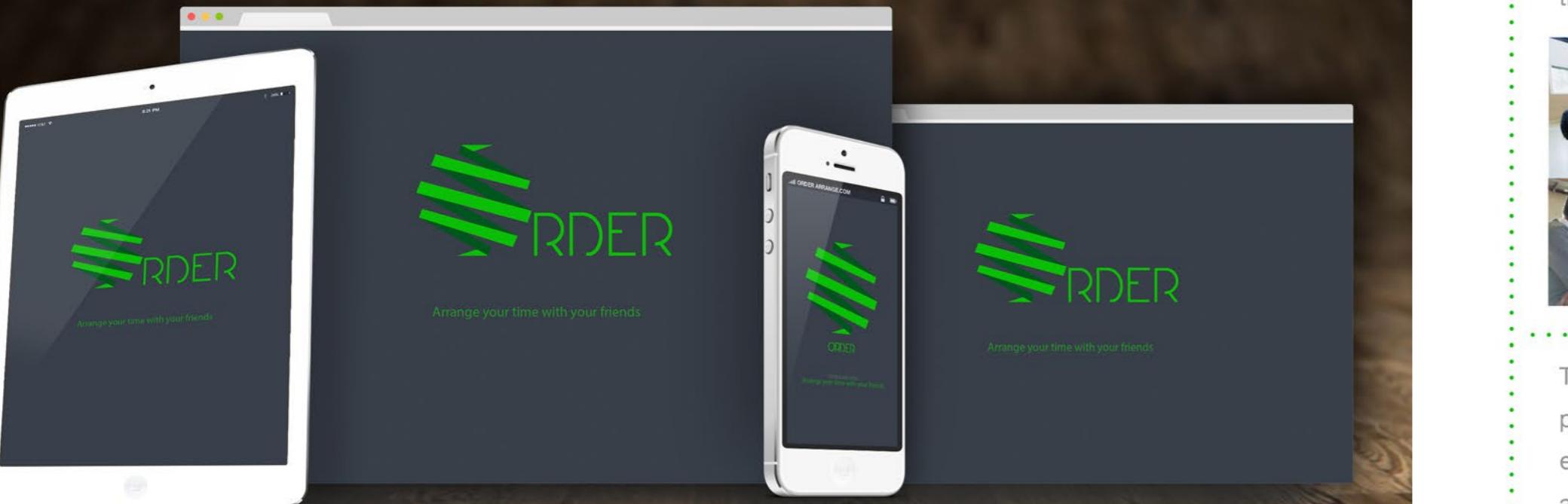
Users can easily switch the video interface to the note-taking one and use the brushes and the keyboard to organize their ideas. The buttons are still fluent after rotation.

APP Design 04/2015-05/2015

ORDER ARRANGEMENT

Simply make appointments with friends or colleagues

This APP aims to help users smoothly arrange their social activities like meetings or parties and negotiate with their colleagues and friends without bothering by rescheduling again and again.



Problem



I found it too hard to hold a meeting because people have their own schedule. Could you please help me with this problem to arrange the appointment?

People need to gather together to work, celebrate, have fun, solve problems and so on. However, a party or meeting is hard to hold when there are too many people invited.

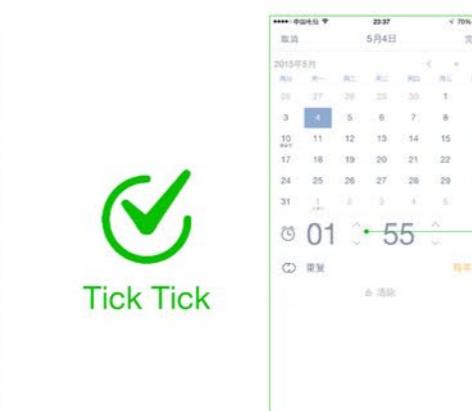


The problem bothering professor Hou is also existing in other jobs and under some certain conditions.



Analysis

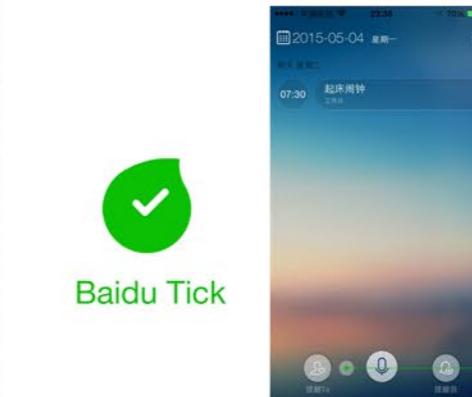
2.1 Competitive Product Analysis



This APP does not allow users to communicate and sharing is not convenient.

The time is so abrupt that it is not fluent.

The priority is outstanding for the users to determine the order.



However, the function is too simple and it is not necessary to download such an APP without taking the Apple calendar into account.

It can set the special list to remind him or her some special affair



It allows users to set the priority and marks with the different color.

However, this APP is good for a team to share the duty of everyone and to let them know the process of the program.

2.2 Focus Group

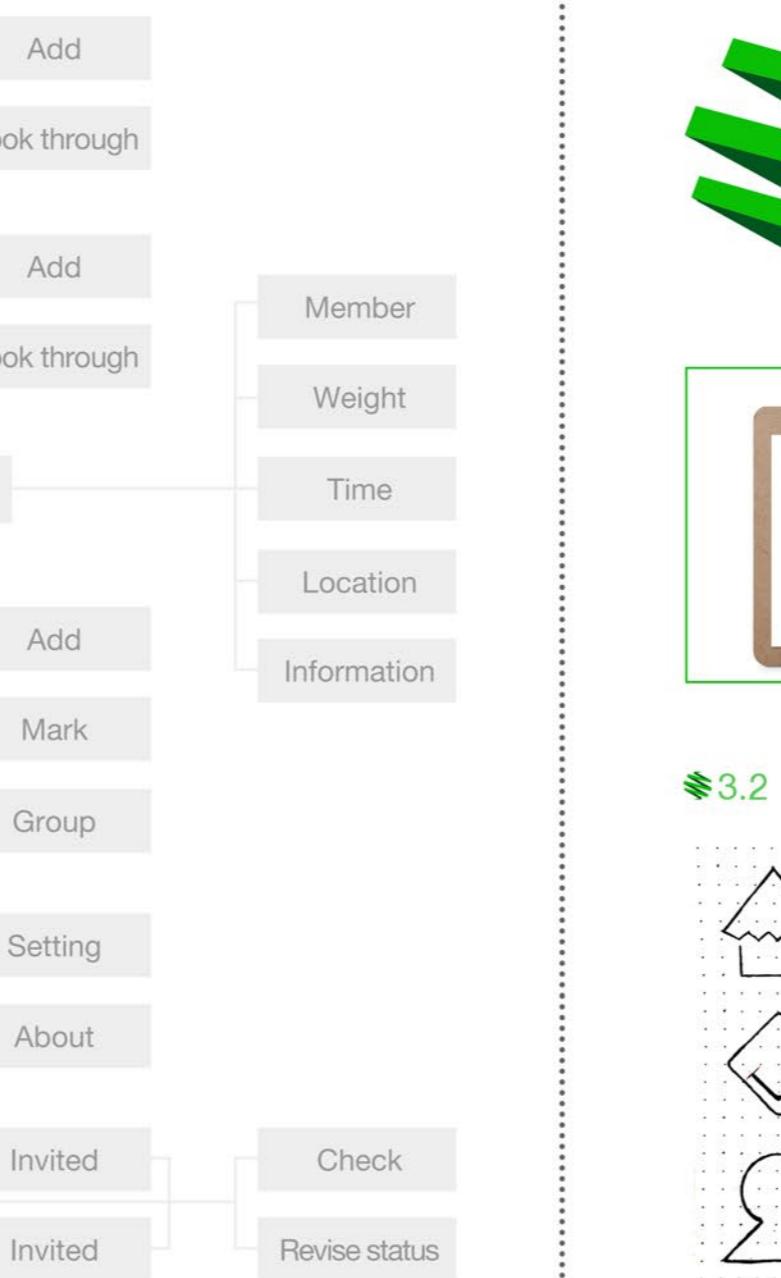
Emily	Head of the sports club
Francis	Owner of a bakery
Max	Marketing director
Ronald	Programmer
Elizabeth	Cartoonist
Christina	Seller



- Q1: How often do you have a meeting or a party?
- Q2: How many people in your group for the work or others?
- Q3: How will you arrange the appointment?
- Q4: Do you have some impressed things to share?
- Q5: Have you ever met something bothered you?
- Q6: What way do you think is effective to solve the problems?
- Q7: Do you feel it is always easy to hold a meeting or a party?

Question
List ?

2.3 Information Architecture



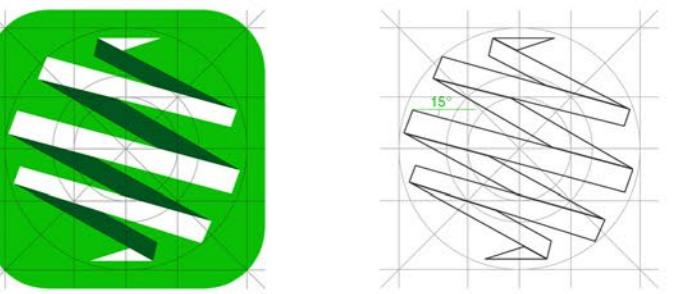
3 Design



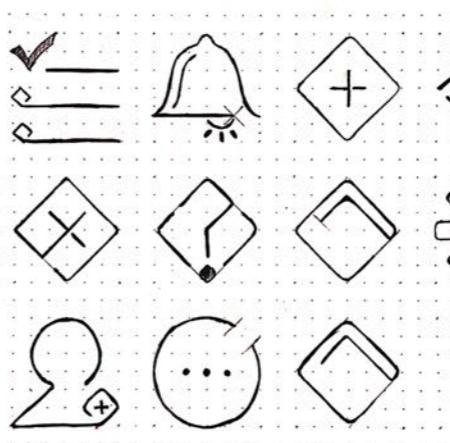
3.1 Logo

R: 10
G: 190
B: 5

R: 0
G: 85
B: 30



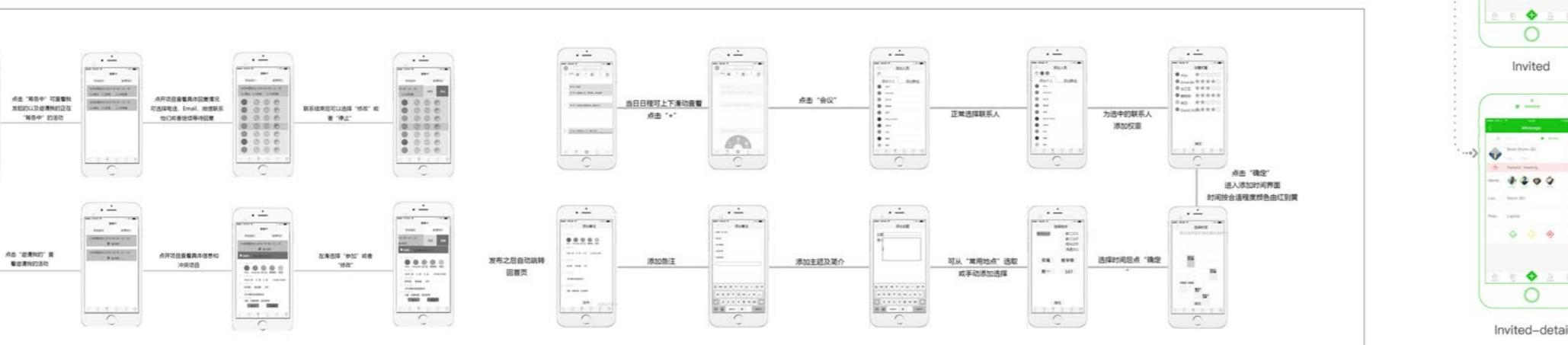
3.2 Icon



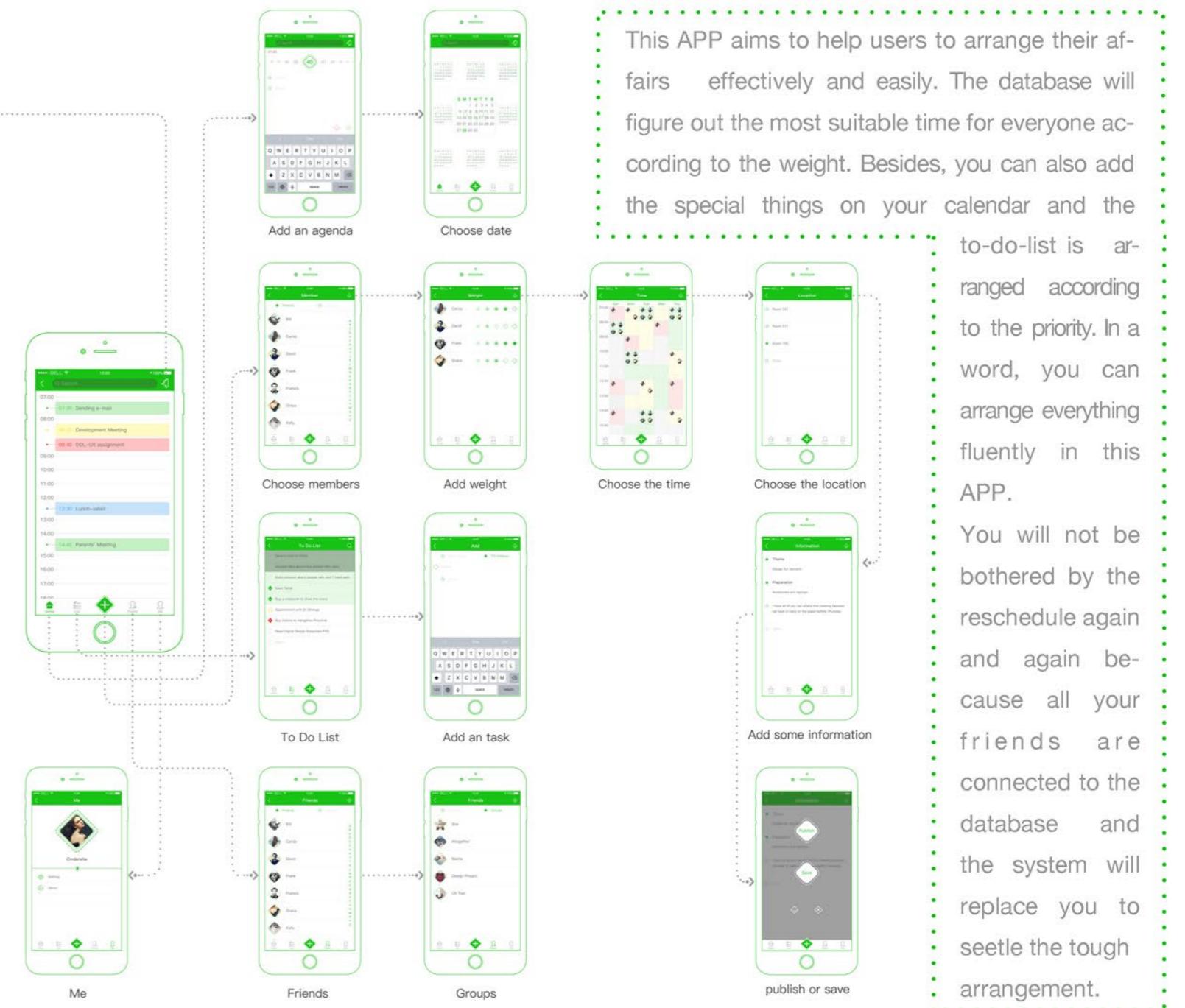
3.3 Sketch



The first version of the low fidelity prototype which is iterated later and made into high fidelity.



3.4 Flow Model

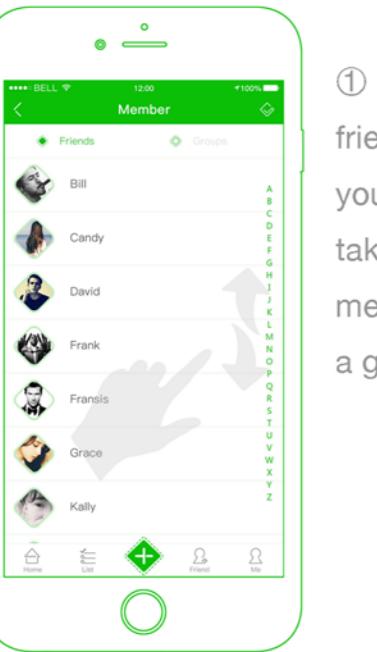


This APP aims to help users to arrange their affairs effectively and easily. The database will figure out the most suitable time for everyone according to the weight. Besides, you can also add the special things on your calendar and the to-do-list is arranged according to the priority. In a word, you can arrange everything fluently in this APP. You will not be bothered by the reschedule again and again because all your friends are connected to the database and the system will replace you to settle the tough arrangement.

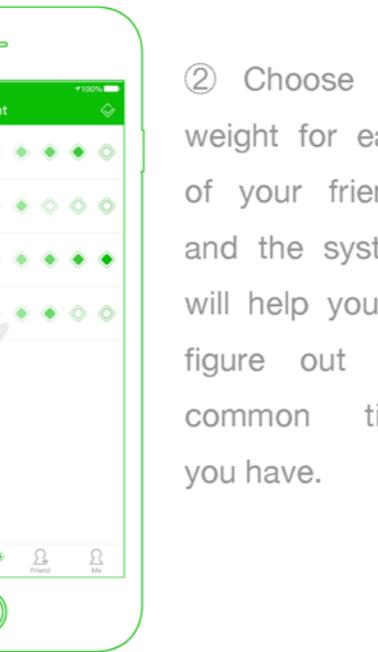
3.5

UI function

Add a meeting



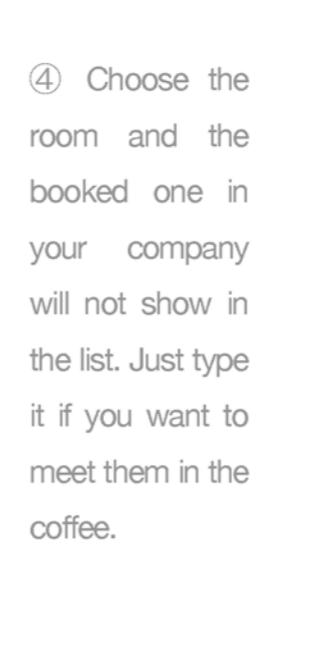
① Choose the friends whom you need to take part in your meeting. Or pick a group.



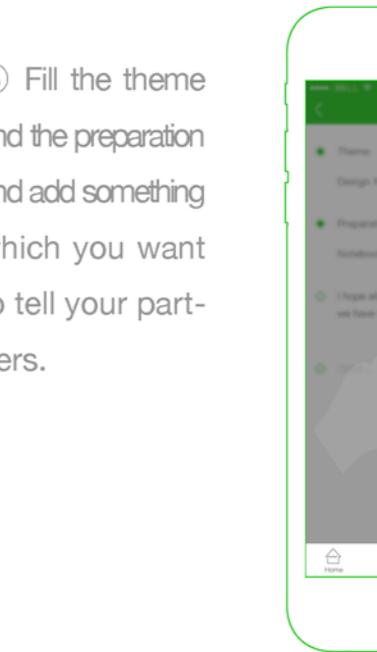
② Choose the weight for each of your friends and the system will help you to figure out the common time you have.



③ You can slide to check the suitable time and choose one. The most convenient time is marked green, followed yellow, red and gray.



④ Choose the room and the booked one in your company will not show in the list. Just type it if you want to meet them in the coffee.

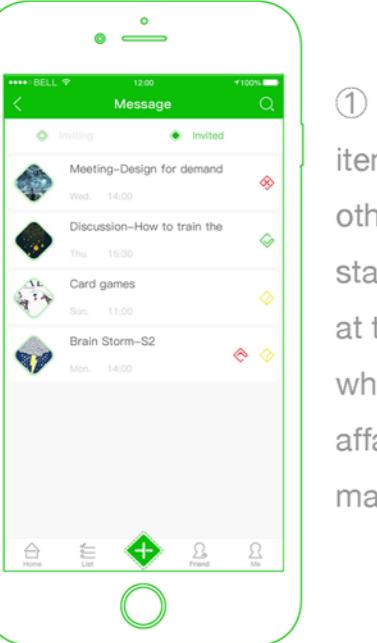


⑤ Fill the theme and the preparation and add something which you want to tell your partners.

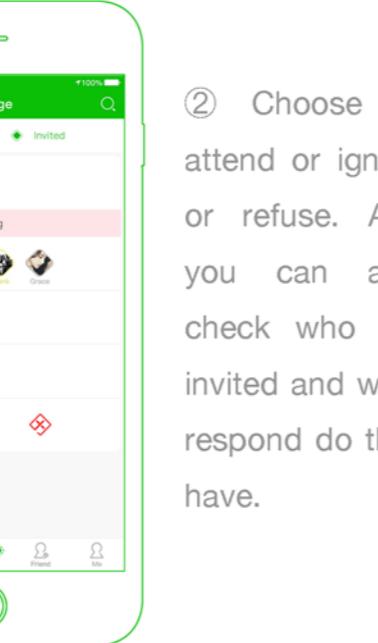


⑥ The Publish button will help you to ask your friends whether they have time to join or not while the Save button will help you to record this item.

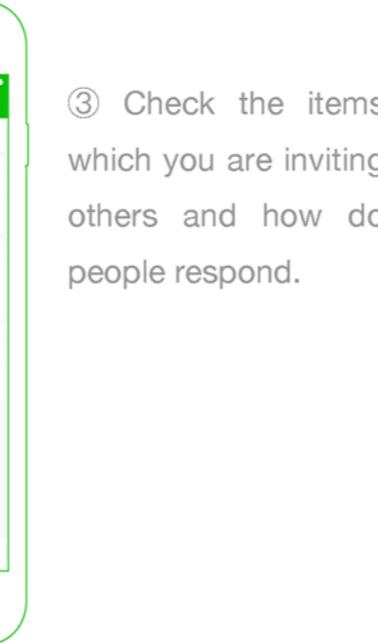
Feedback and responses



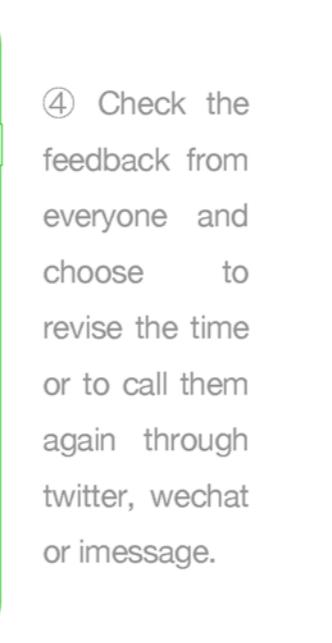
① Check the items invited by others and the status will show at the same time while the conflict affairs will be marked by red.



② Choose to attend or ignore or refuse. And you can also check who are invited and what respond do they have.



③ Check the items which you are inviting others and how do people respond.



④ Check the feedback from everyone and choose to revise the time or to call them again through twitter, wechat or imessage.



Product Design
11/2014-01/2015

Content



Problem

What is happening everyday?



Analysis

What data can we use?



Project

How to solve the problem?



Design

What are the final modes?

This project aims to solve the problem that many bottles of purified water has been wasted. Using the AR technology to encourage users to empty their bottles and help the company to show their care for the whole society.

1 Problem



4,500,000,000 bottles of drinking water are wasted in 2015. People leave these bottles without finishing it or , maybe under some conditions, they forget which one belongs to them, especially in a party or an activity.

2 Analysis

2.1 Requirements



Consumers

- Some thing funny
- Some thing without sermon
- Some thing makes the decision easily



Companies

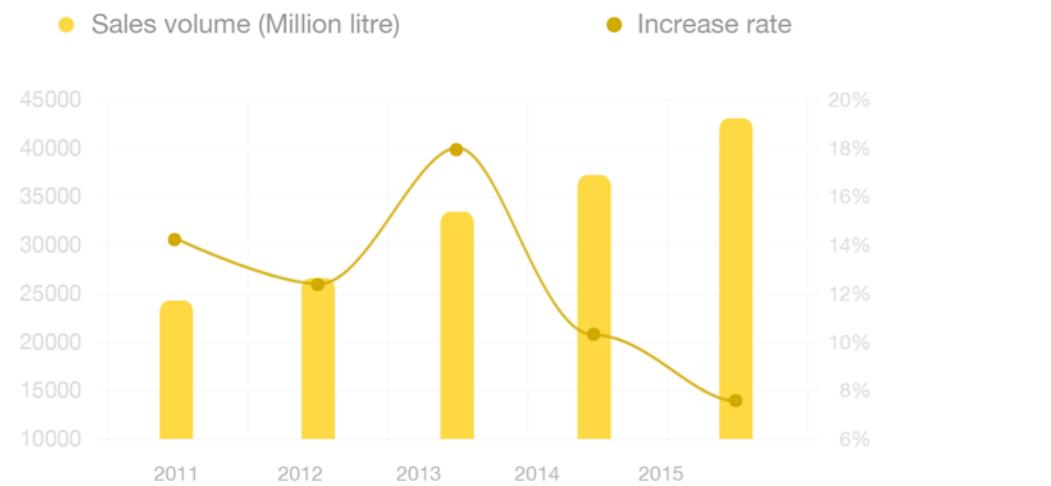
People are holding meetings everyday, and they are all offered a bottle of purified water on the table , many of which are left after **only a few sips**. The same phenomena happen in the playgrounds, the private cars and some other places.

The rag-and-bone men are just splash the water on the ground **without hesitation** and collect the empty bottles. However, they are not the ones should be blamed because they do not know how to deal with those water.

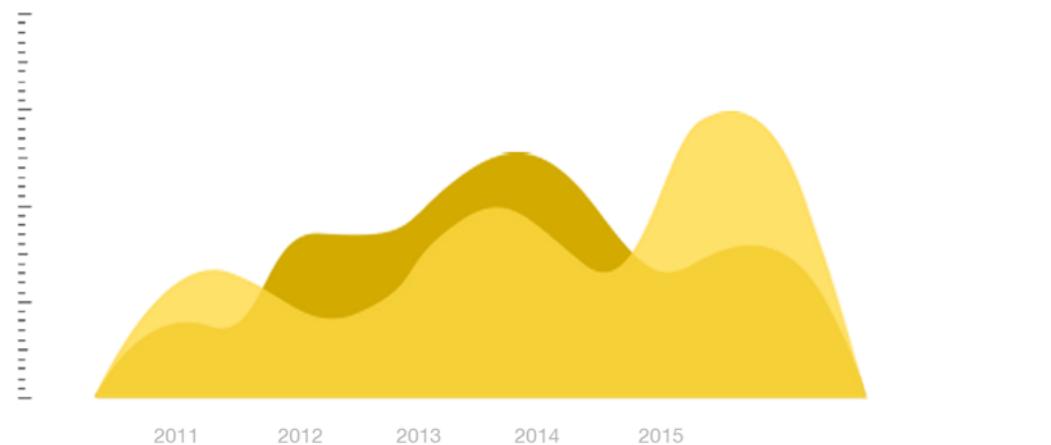
- Some thing sales better
- Some thing shows the company caring for the society
- Some thing lets the consumers remember

2.2 Data

Increase rate and sales volume of bottled water



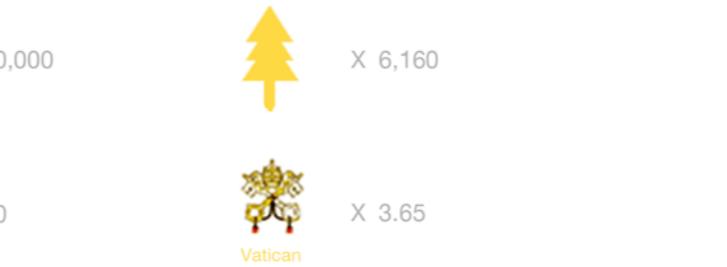
How much water has been wasted



A litre PURIFIED water is produced from 3 or 4 litres RAW water



2250 million litre bottled water is wasted every year, which EQUALS



Why do people not drink all the water in their bottles

- | Reason | Percentage |
|--------------------------------------|------------|
| Too embarrassed to take it | 34% |
| It is not clean after a long time | 49% |
| It is inconvenient to take it | 58% |
| It is not expensive to buy a new one | 23% |
| Confusing about which one is mine | 65% |
- Reasons why people do not drink all the water in their bottles:
- Too embarrassed to take it
 - It is not clean after a long time
 - It is inconvenient to take it
 - It is not expensive to buy a new one
 - Confusing about which one is mine

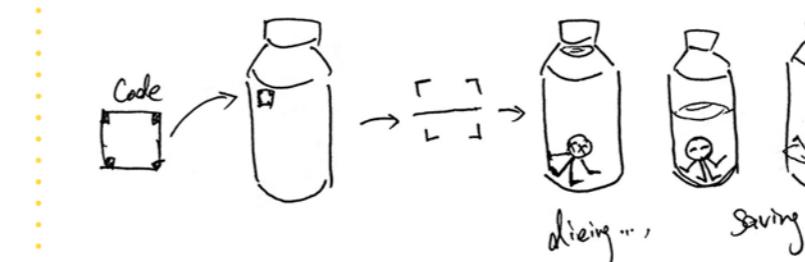
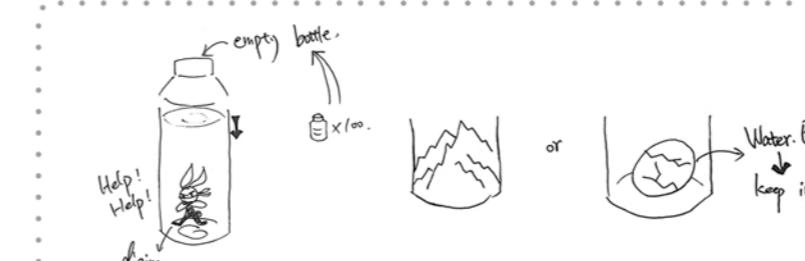
3 Project

Plan ①

Plan ②

Plan ③

Plan ④



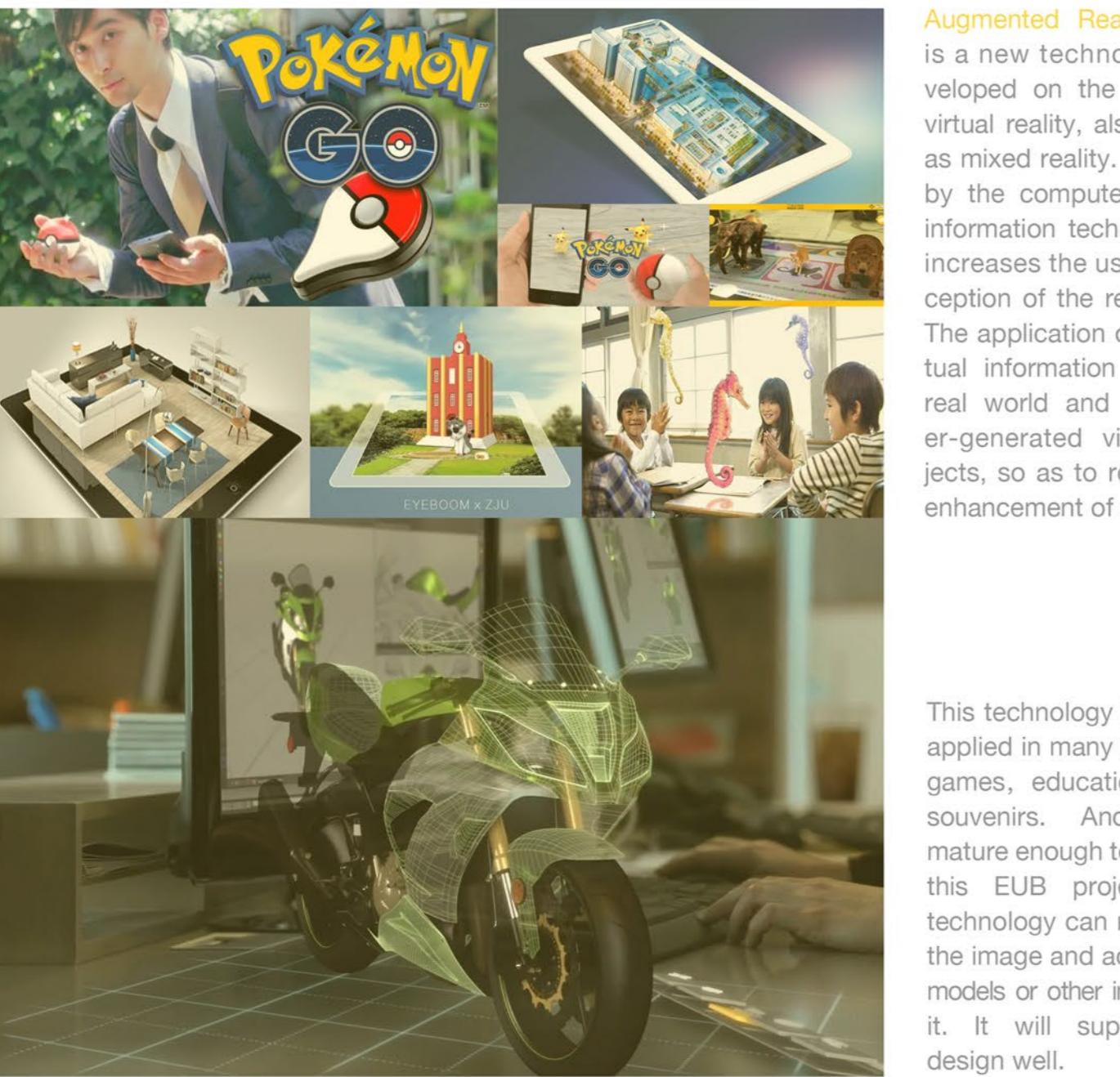
Build a large box with Ritina screen on it. The character on the screen will interact with people when they throw empty bottle in it. The more empty bottles people put in the box, the more alive the dying character will be.

Put up a huge projection with a large bottle image on it in some public places. People can get some feedback if they all put empty bottles in the box connected with the projection.

Print a QR code on the bottle. Users will get a little surprise after scanning it such as a character or a joke. And this surprise will not be seen completely unless they finish their water.

Put a special candy with strange flavor at the bottom of the bottle. The candy will not be moved unless the user finish the water. And they will not know what kind of candy will they get before they taste it.

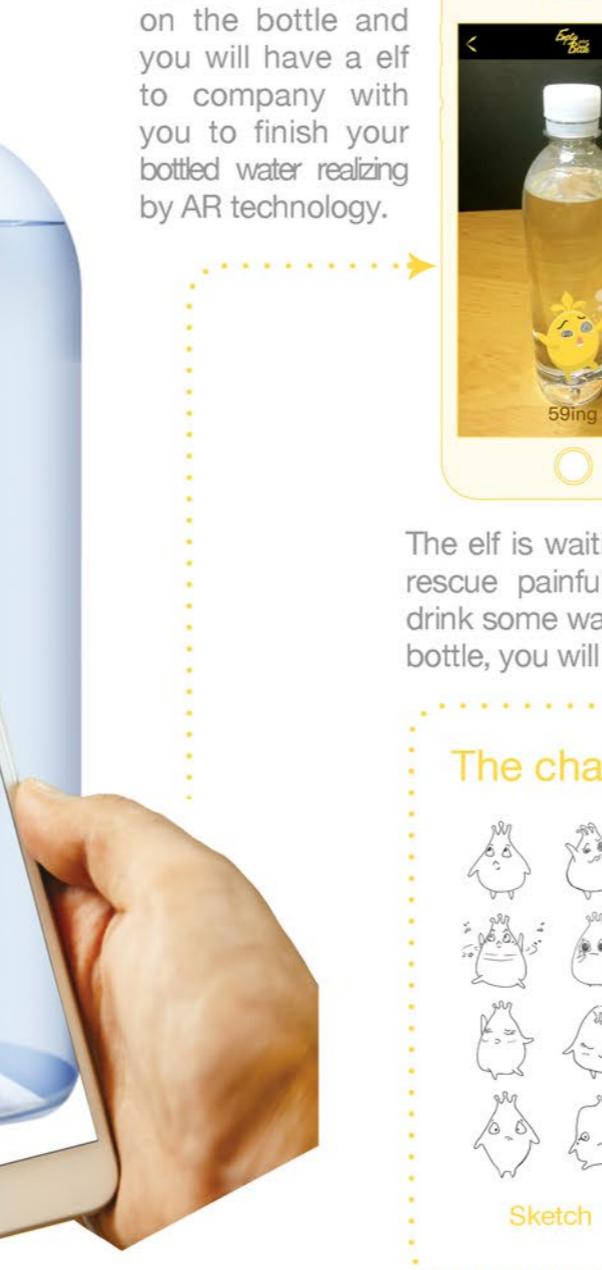
4 Technology



Augmented Reality (AR), is a new technology developed on the basis of virtual reality, also known as mixed reality. Provided by the computer system information technology, it increases the users' conception of the real world. The application of the virtual information into the real world and computer-generated virtual objects, so as to realize the enhancement of reality.

This technology has been applied in many fields like games, education and souvenirs. And it is mature enough to apply in this EUB project. The technology can recognize the image and add the 3D models or other images on it. It will support the design well.

5 Design



Scan the QR code on the bottle and you will have a elf to company with you to finish your bottled water realizing by AR technology.



The elf is waiting for the rescue painfully. If you drink some water in your bottle, you will save it

The elf will interact in different moves when you are finishing your water.

The elf will be so thankful if you drink all the water in the bottle.

Each elf can be saved after finishing your bottled water. And they can be kept in your elf book.

You can check their names and other details in your elf book.

The character of elves



Sketch

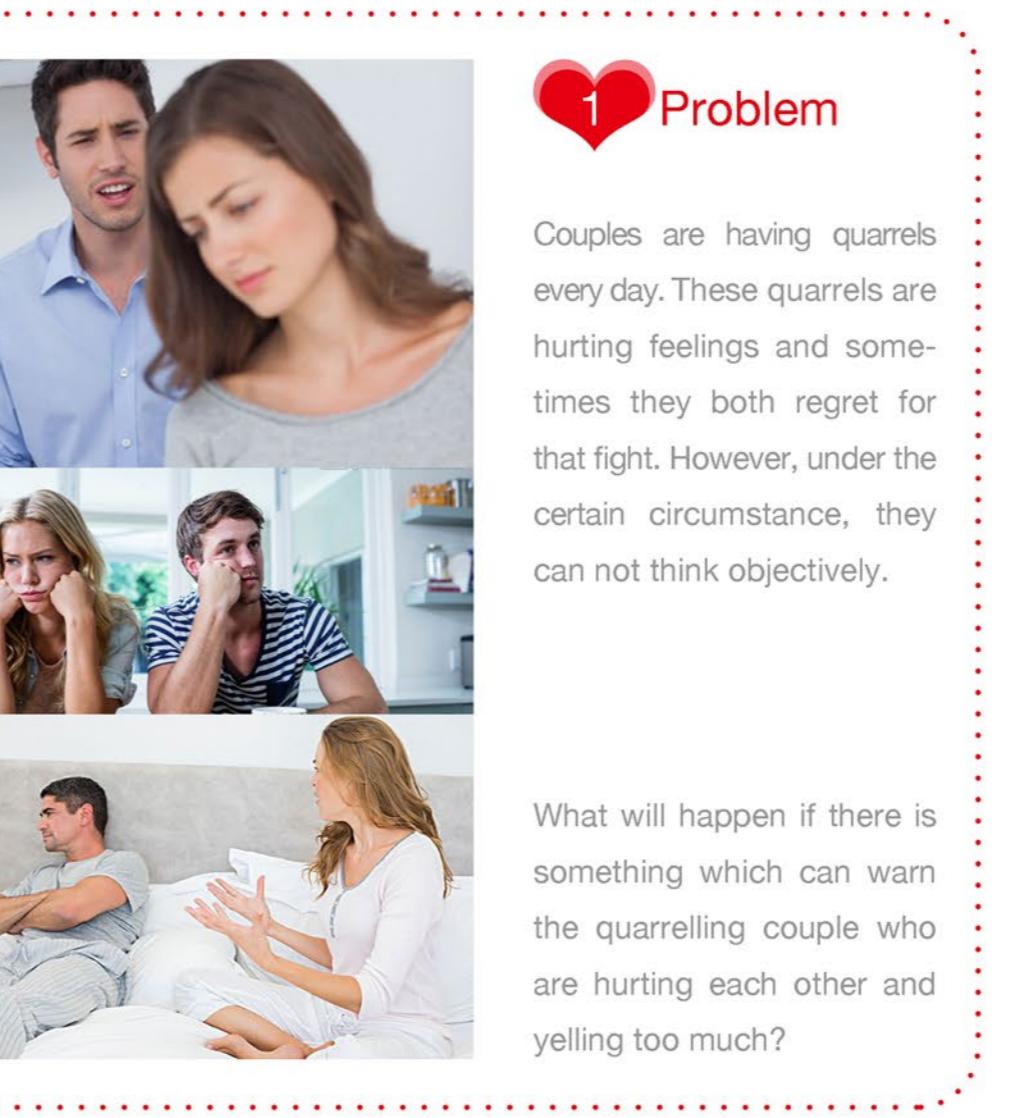


Front



Side





1 Problem

Couples are having quarrels every day. These quarrels are hurting feelings and sometimes they both regret for that fight. However, under the certain circumstance, they can not think objectively.

What will happen if there is something which can warn the quarrelling couple who are hurting each other and yelling too much?

This is a facility which can help lovers recall their best memories when they are having quarrels through projector displaying their love videos and love music and turning off after lovers saying the same recorded sentence.

2 Analysis

2.1 Competitive Product Analysis

Pillow Talk

It sends the sound of your realtime heartbeat to a speaker under your partner's pillow. By sharing something so intimate with each other, you can feel connected in a unique and special way.



Kissenger

The Kissenger, derived from the word Kiss+Messenger, is the world's first and only operating and commercially viable kiss transferal device in existence.

Fundawear

Through the vibration device to accept the touch commands from the iPhone App, it can not only accurately stimulate the touch point, but also simulate the strength of the lover.

Lovepalz

This is a kinect product, which can help lovers who are far from each other to have simulation sex. Along with the face-time, it strongly helps couple to feel something at the same time.



2.2 Interview



Xiaohua(21) & Jinxue(24)
Have been dating for a year and eight months
F: Once / 45 Days
R: Trifles, habits and ideas
L: A few minutes
C: Positively improve the relationship



Bella(23) & Yutong(22)
Have been dating for six years and nine months
F: Once / month
R: They are dealing with things in different ways
L: Three hours
C: To think about the pace in the relationship

Huan(22) & Yichuan(21)
Have been dating for two years and a half
F: Once / 14 Days
R: The girl are not satisfy with the boy
L: Half an hour
C: Life is so boring without quarrels



Cherry(23) & Peng(24)
Have been dating for a year
F: Twice / week
R: Trifles, habits and ideas
L: A few hours
C: Hurting the feelings and make them confusing



Min(23) & Goudong(21)
Have been dating for two years and eight months
F: Once / half year
R: Trifles
L: Half- one hour
C: They feel more intimate



Wei(33) & Bingran(33)
Have been married for three years
F: Once / 3 months
R: Trifles
L: A few hours
C: It does not matter and it is what life like

2.3 Persona



Doreles(25) & Jack(27)
Have been dating for two years and will be married in a month
F: Once / week
R: Trifles, habits and ideas
L: A few hours
C: Hurting the feelings but enhance the relationship

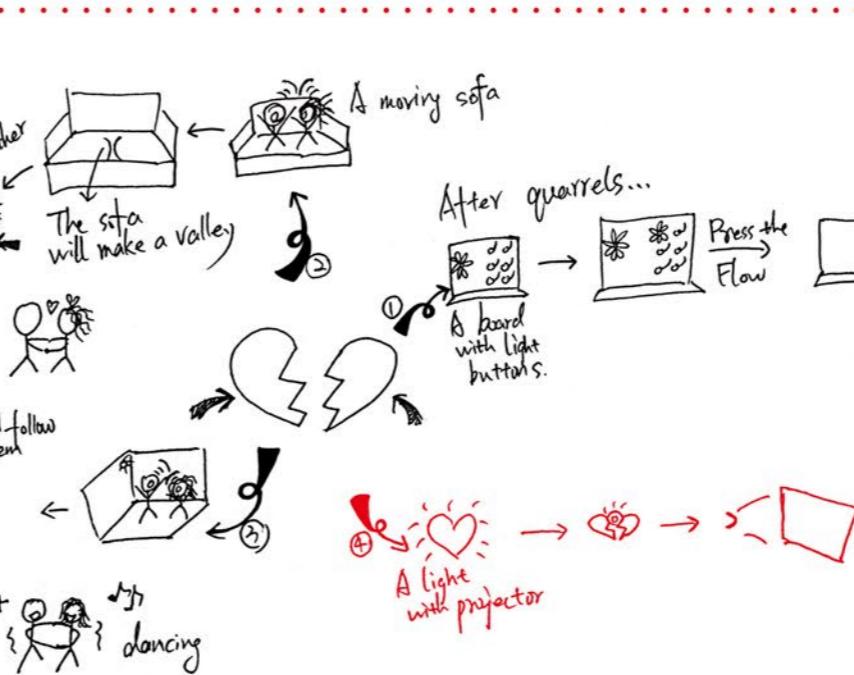
Needs

- Discuss the problem objectively without blame each other
- Need a way to calm down when quarrels hardly
- Hope the way to get back together can be less embarrassed

"F"for frequency, "R"for reasons, "L"for last and "C"for consequence

3 Project

3.1 How to solve



- ① A board with light on it. When people have quarrels, they can record and the light will twinkle. The other one can hear the sorry voice.
- ② A sofa which can make a valley when it hear the couple are yelling pushes people closer
- ③ A light which can follow the yelling people plays music and makes the quarrelling people dancing together
- ④ A light with projector hided in it opens when it find couples are yelling and play the videos advanced copied in it

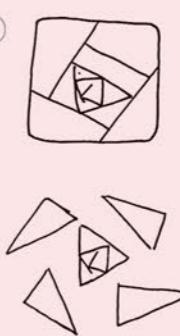
3.2 Concept



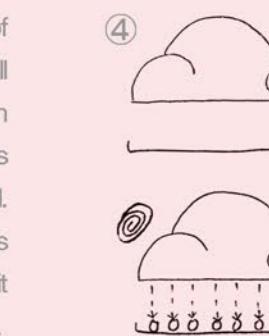
A heart will break when voice reaches certain level. And couples have to push it back together.



The wings of the love bird will break when voice reaches certain level. And couples have to push it back together.



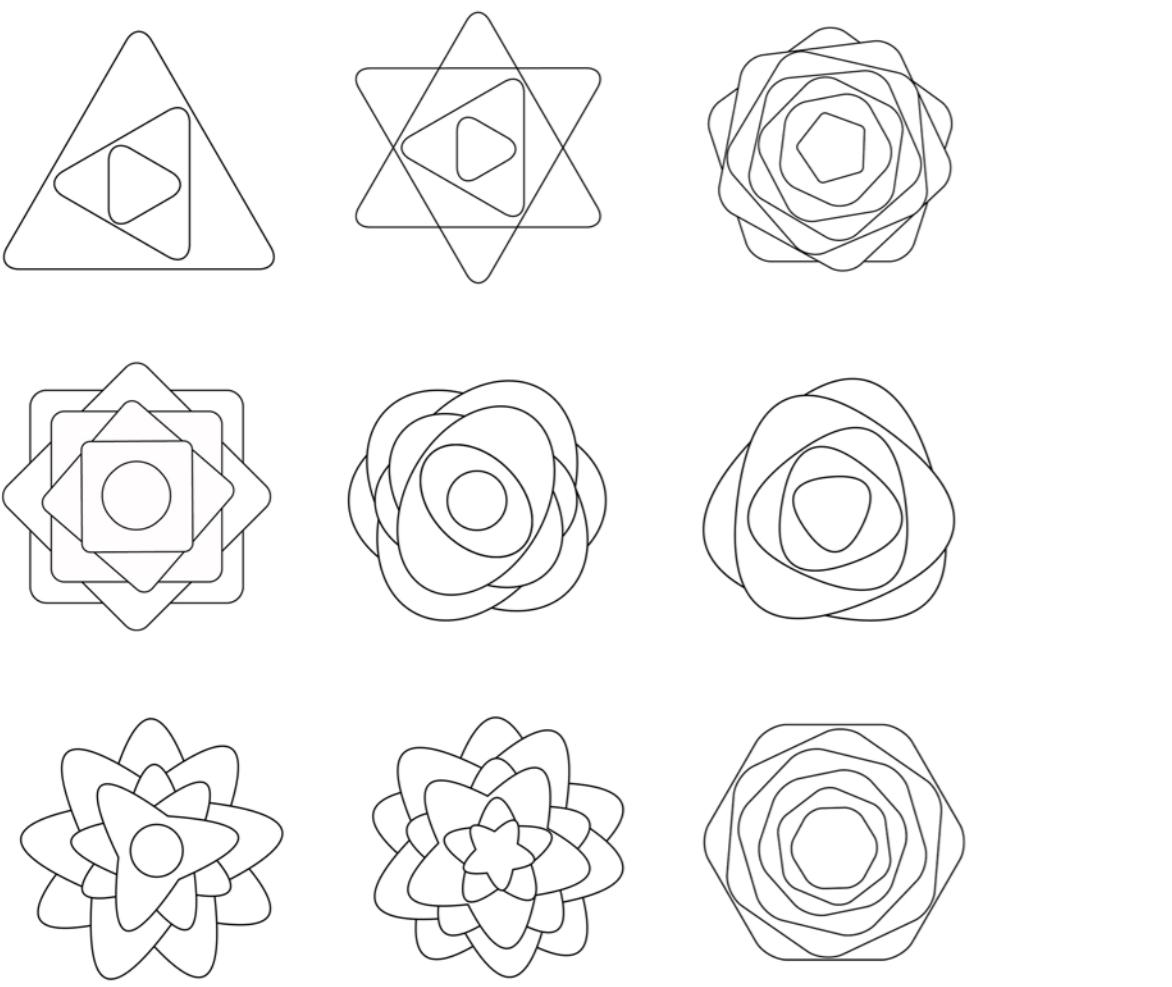
The petals of the rose will drop off when voice reaches certain level. And couples have to put it back together.



The magnetic balls will drop after the voice reaches certain level. And couples have to put their thumbs on it to get back balls.

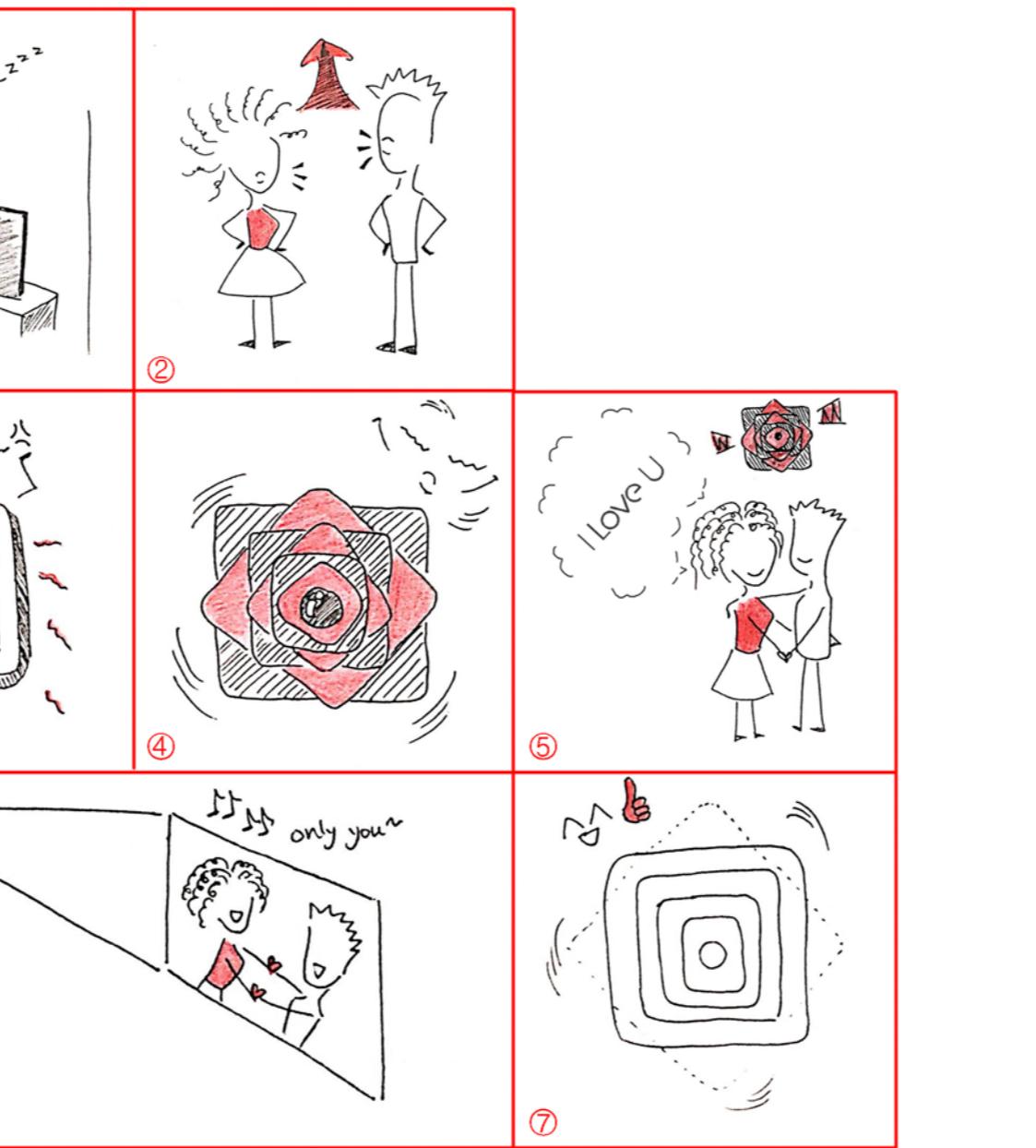
4 Design

4.1 Possible styles

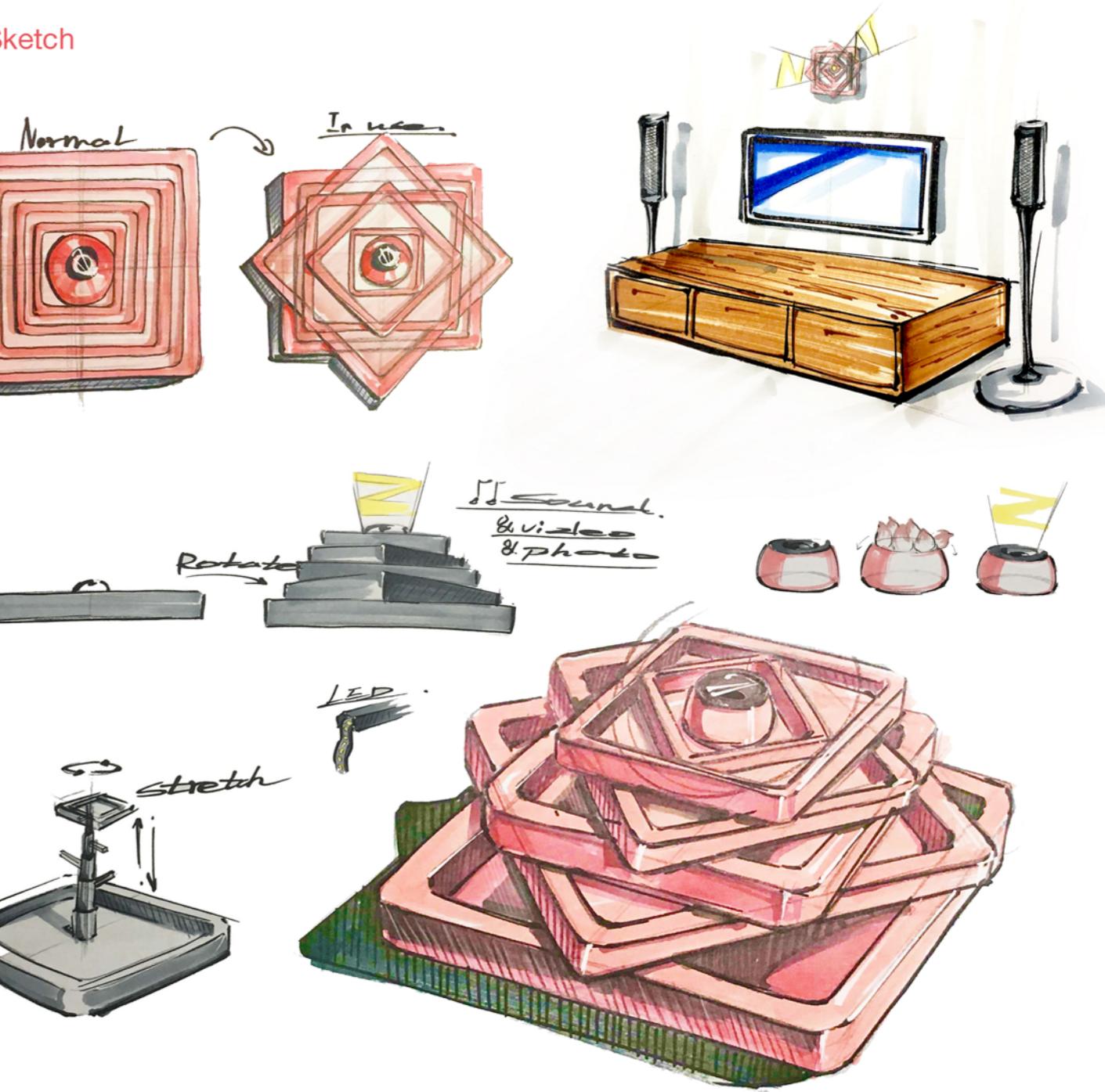


The abstraction from rose which always resemble love can change into many styles. The principle of choice is the possibility for mass production and the completion of the design.

4.2 Story board



4.3 Sketch



4.4 3D Model



The normal status-top

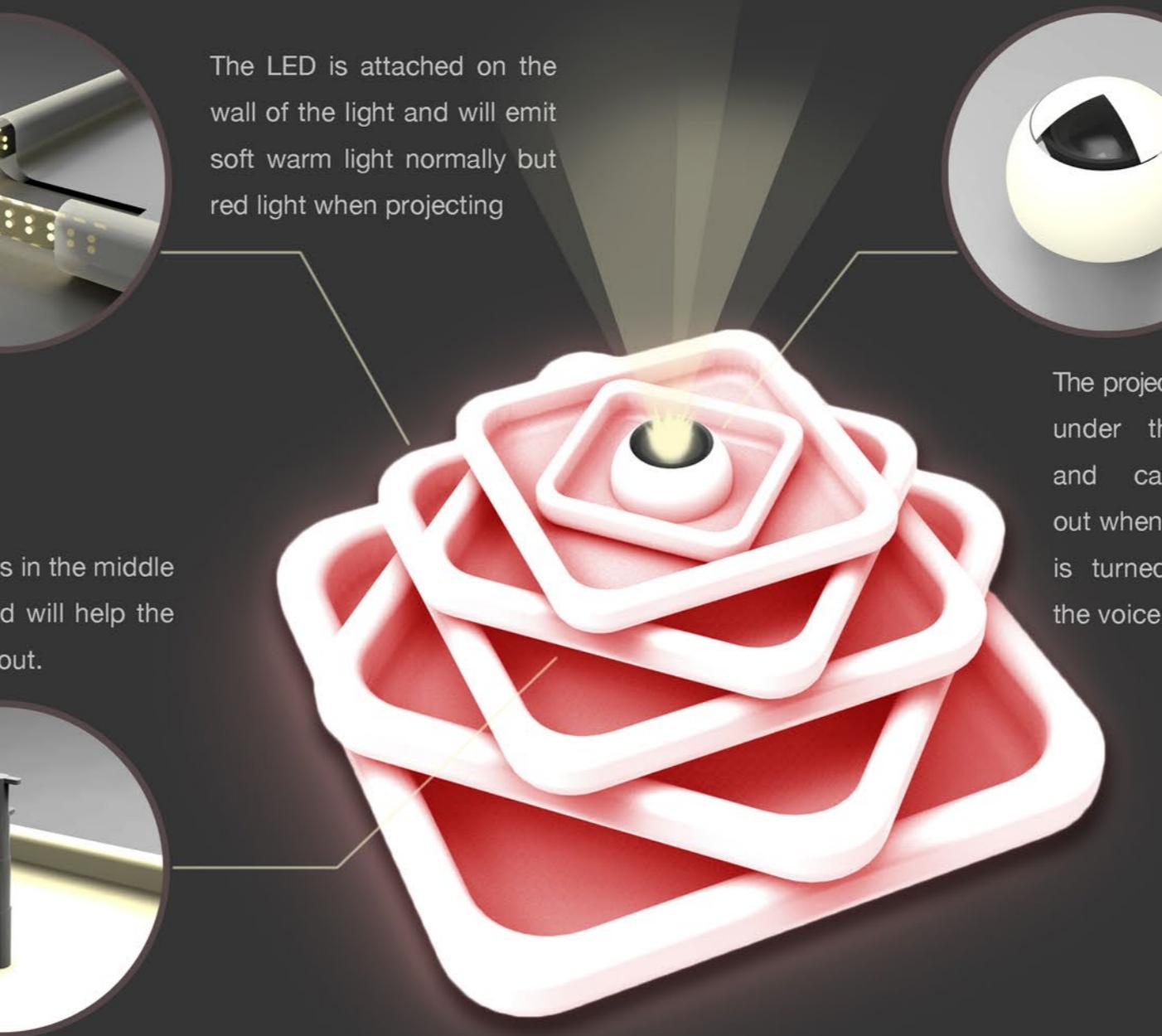
The Projector named Bestemory will bring you back to your best memories when the voice is reaching the volume setted. And the projector will stretch out and start playing the videos and music which you saved in it beforehand.



The projecting status-top



The projecting status-side



The LED is attached on the wall of the light and will emit soft warm light normally but red light when projecting

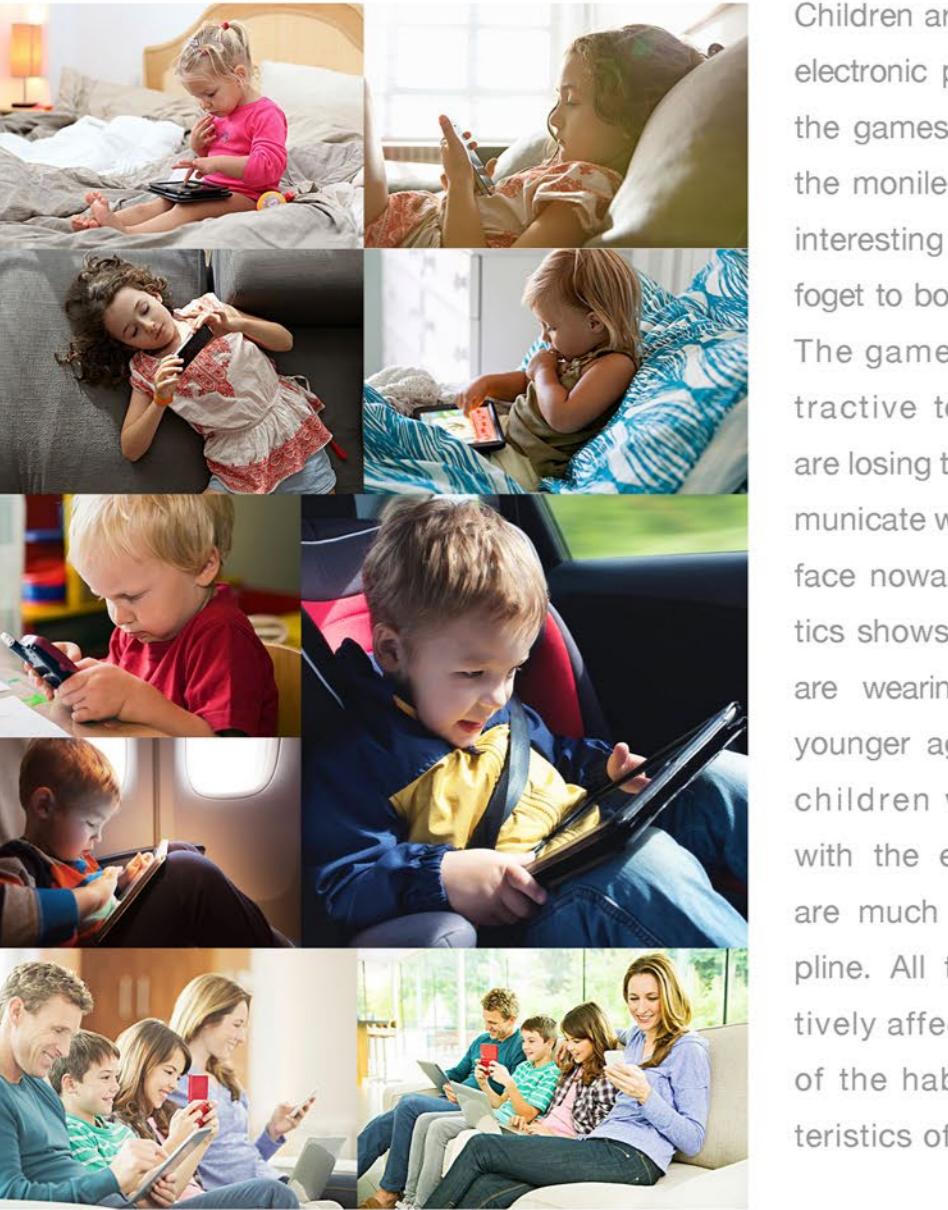


There is an axis in the middle of the light and will help the light to stretch out.

The projector hides under the shell and can stretch out when the light is turned on by the voice.



1 Problem



Children are babysat by the electronic products because the games and cartoons in the mobile terminals are so interesting that they can forget to bother their parents. The game world is so attractive to them that they are losing the ability to communicate with others face to face nowadays. The statistics shows that the children are wearing glasses at a younger age. Besides, the children who are familiar with the electronic games are much harder to discipline. All these will negatively affect the formation of the habits and characteristics of personality.

Content

1 Problem

How serious is the problem

2 Analysis

What are the meanings of data

3 Design

Explore the ways to focus on the real world

This project aims to solve the problem that children are addicted into the electronic world without caring about the real world through a interactive music fountain which can be triggered by the seesaw. And the facility are taking sensors and the light art into account.



2 Analysis

2.1 Target users



This is the most important period in a person's whole life, in which children learn how to communicate, how to learn and how to work together.
In this period, children start to recognize the direction, to use complex sentence, to develop the imagination, and to pay attention according to the request.

2.2 Data

What kind of games do children like



What style do children like



Interview two kindergarten in Beijing by asking children to draw their opinions and talk to them.

Ask them to draw their favourite places, activities, styles and so on. Use analysis without difference to decrease the error.

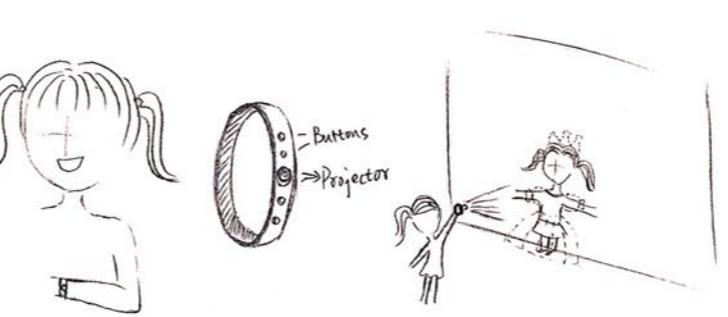
Interview-Children's paintings



3 Design

3.1 brain storm

①



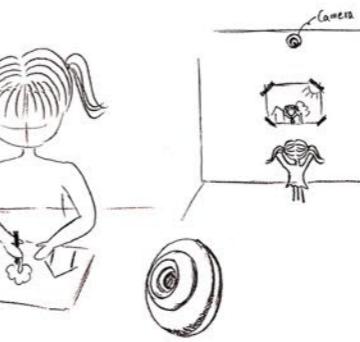
A wristband with micro projector on it which can project the costumes on the children.

②

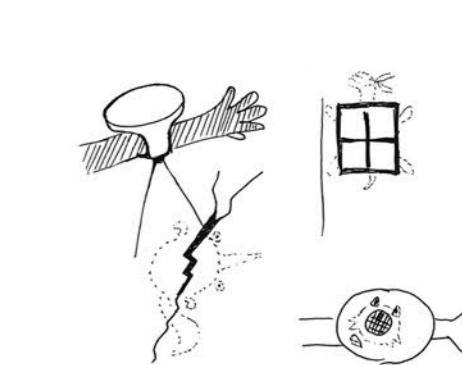


A huge shark facility which decorated with infrared ray catches children when they are running in and out.

③

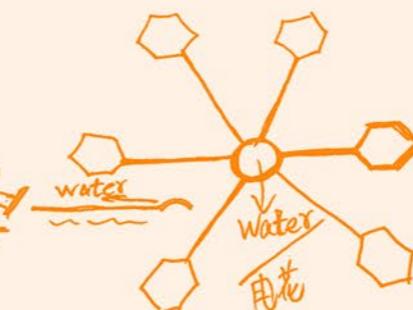


A camera which can shoot the child and add his or her figure in the painting on the wall which drawn by the child aims to realize the dream to play in the paintings.



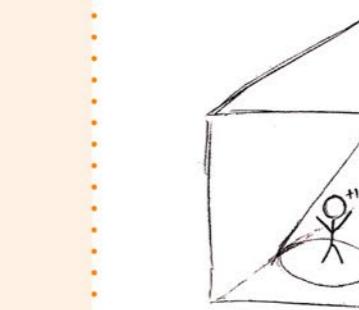
A wearable micro projector with a screen which will show the possible shape when scan the things in the real world and allowed child to draw it and project it on the facility to enhance the musement.

⑤



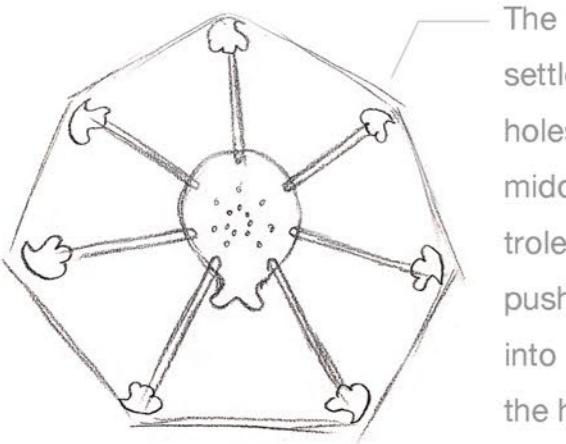
A skateboard connected to the fountain which can be turn on by the speed of the skateboard-ing and have some punishment to the slowest child.

⑥

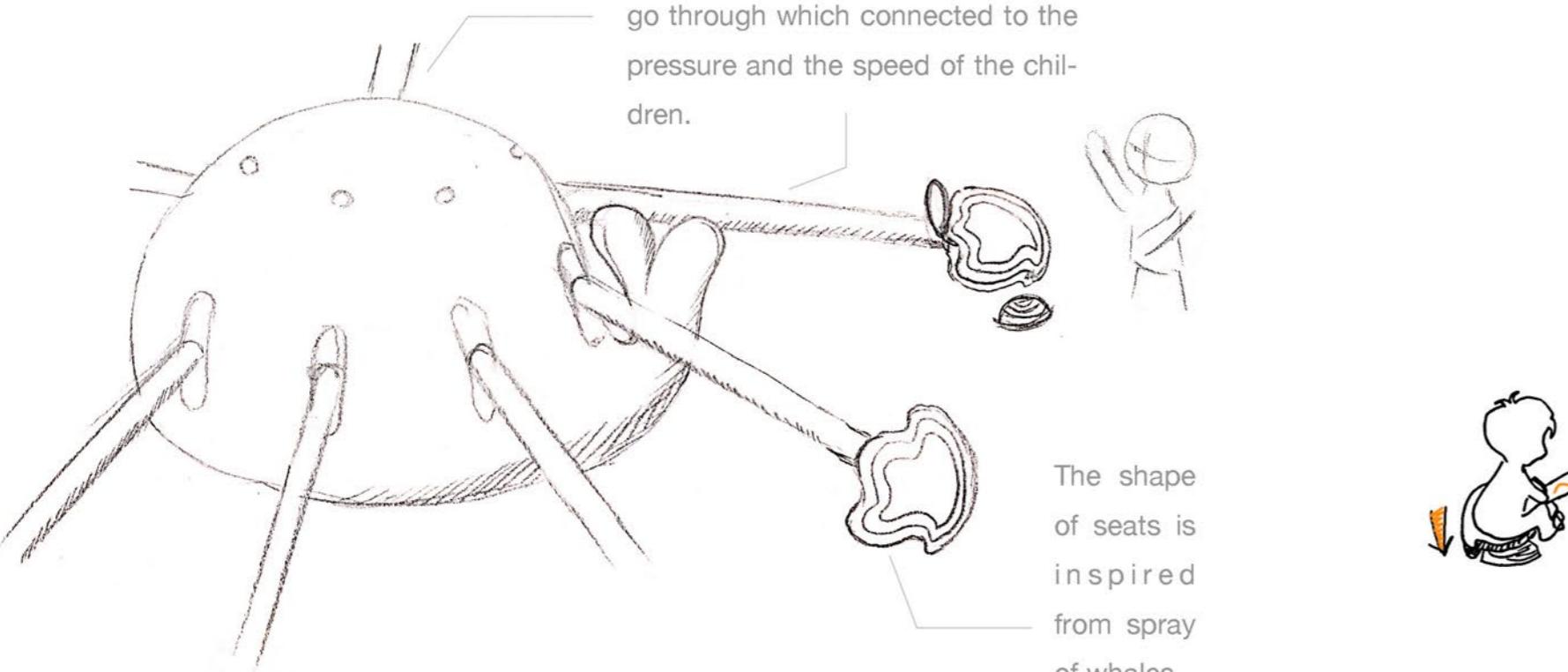


A room with catch light on it. Children can run randomly in the room and to catch the light or escape from it.

►3.2 Sketch



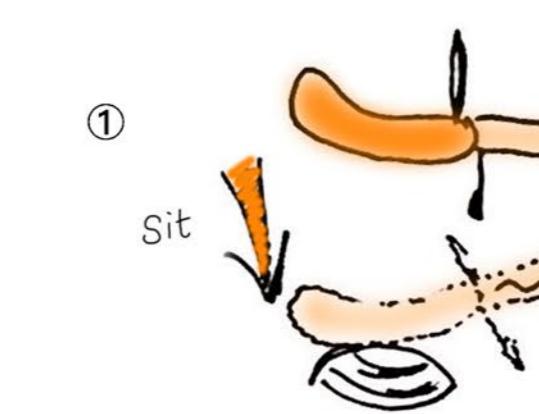
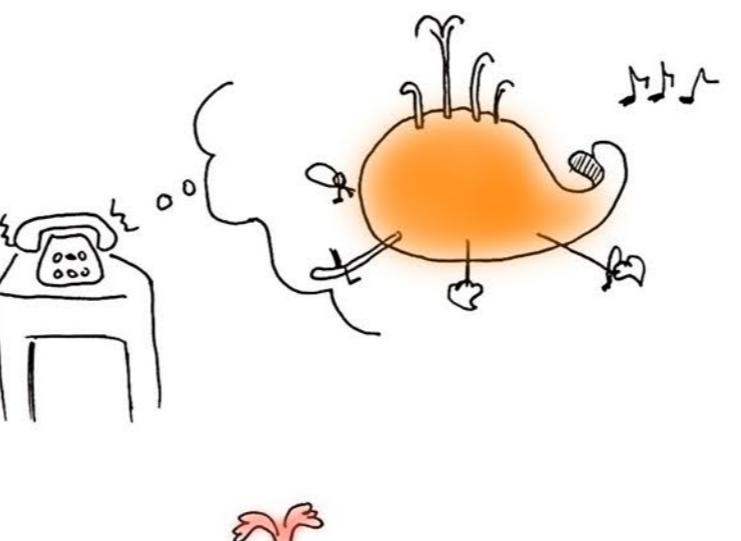
The seesaw are connected to the whale fountain which is settled in the middle of a heptagon. There are seven blow-holes on the top of the whale along with a bigger one in the middle. The water spraying from these holes can be controled by the pressure and the speed of the children. They push down the seats and there will be a beam of light rush into the whale. Meanwhile, the water column rushes out of the holes on the top companied with music.



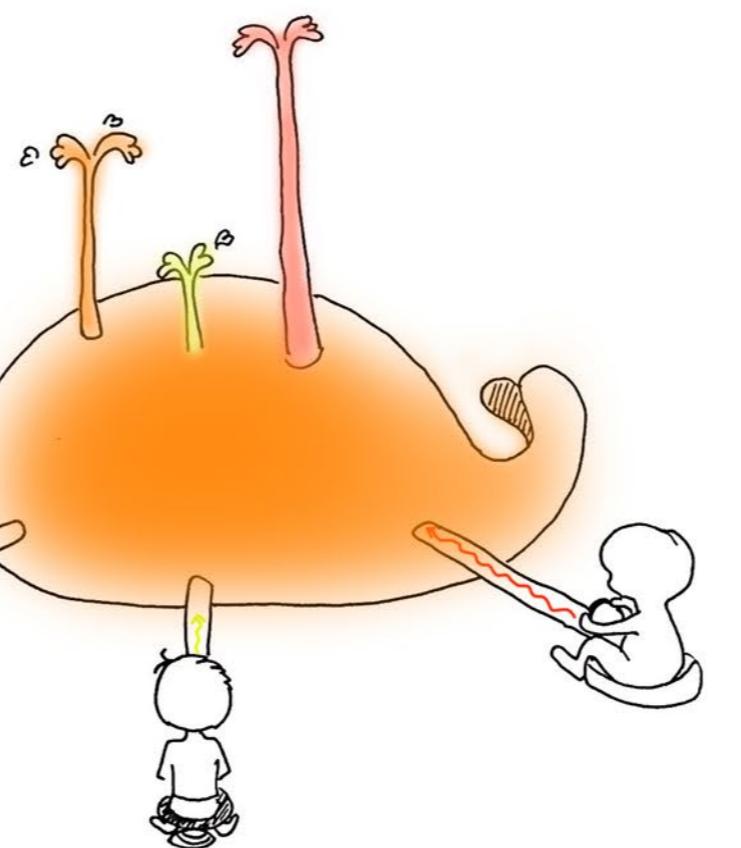
Transparent pipes let the light beam go through which connected to the pressure and the speed of the children.

The shape of seats is inspired from spray of whales.

►3.3 Story Board



① Children sit on the seesaw and the weight will push the pressure sensor and send a electric signal to the Arduino central system in the whale.



② A beam of light will rush into the whale and the speed of the light will connected to the pressure sensor. And the light will go faster if the child is heavier.



③ The Arduino will deal with the data and control the height and the volume of the water column.



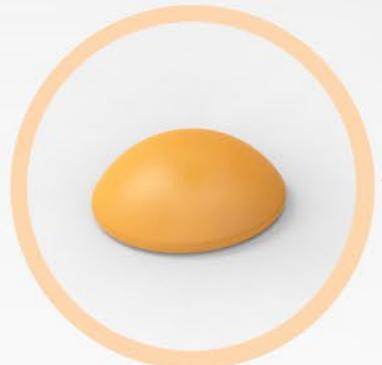
④ The spray will change every time children get down and play different note in a scale so that every child can be a composer.

▲3.4 3D Model

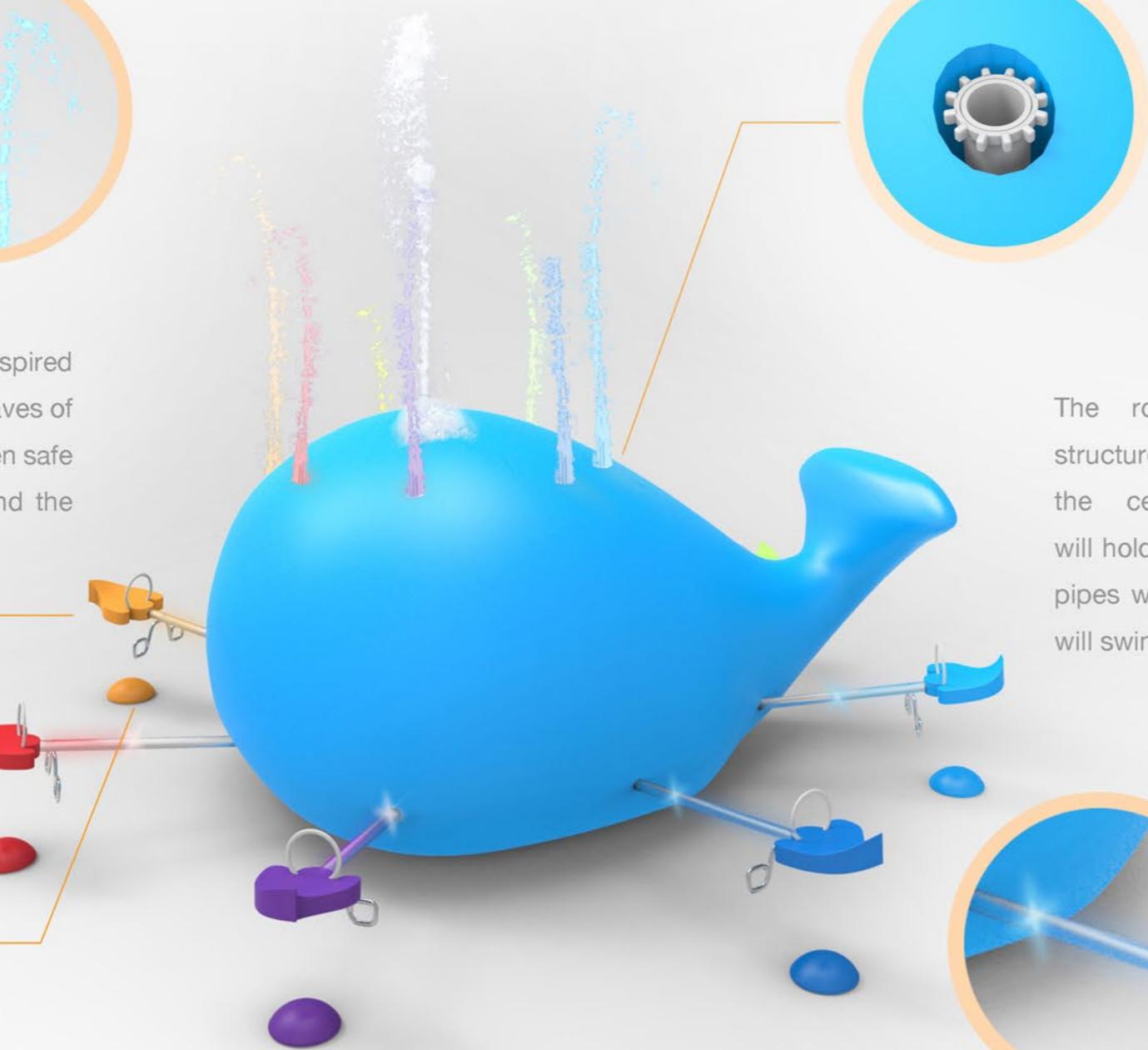
The spray will change the lightness and the volume according to the pressure and the speed of the seesaw.



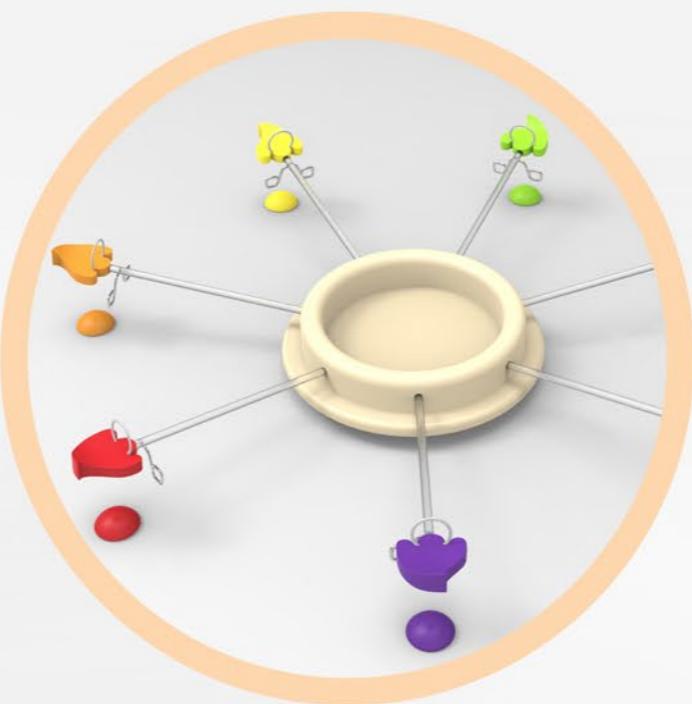
The pressure sensors are hiding under the cushions and can give children a bound feedback.



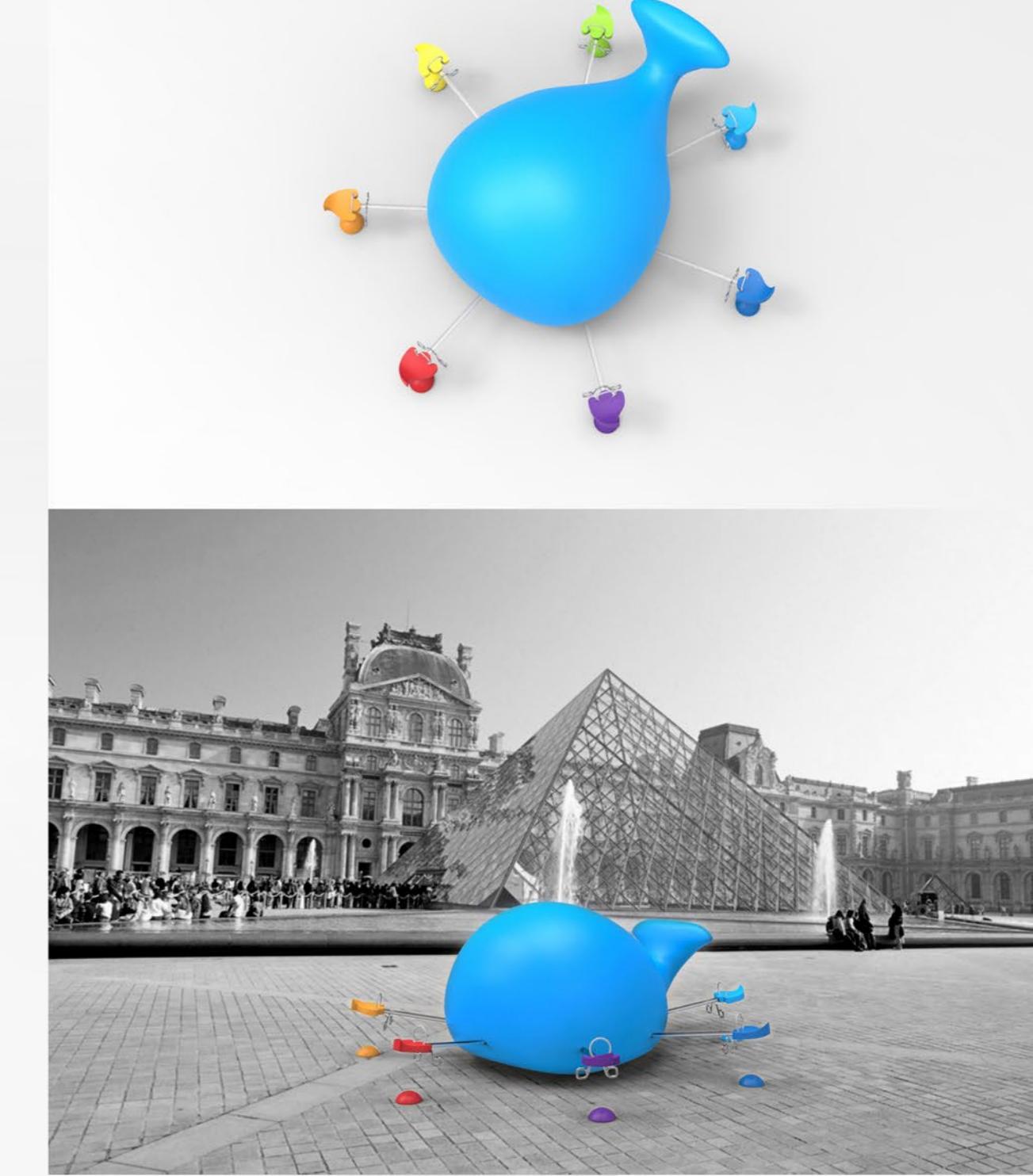
The shape of seats is inspired from spray and the concaves of the seats keep the children safe along with the pedals and the handrails.



The sprayers whirls flexibly on the blowholes and will interact with the children by spraying rotating columns.



The beam of light will rush with different speeds according to the pressure which children cause and let the children feel like they pump some water into the whale.

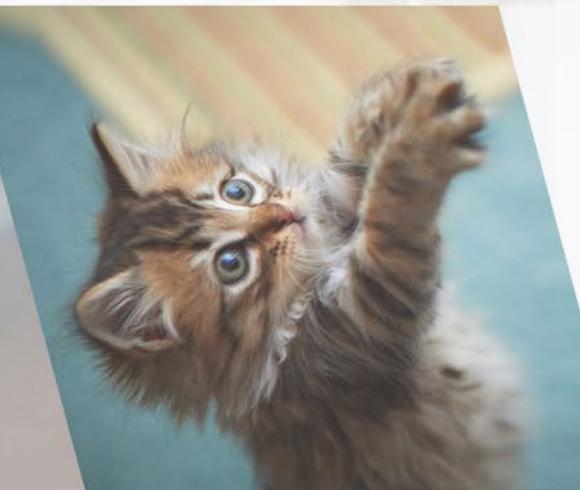


Product Design
03/2014-04/2014

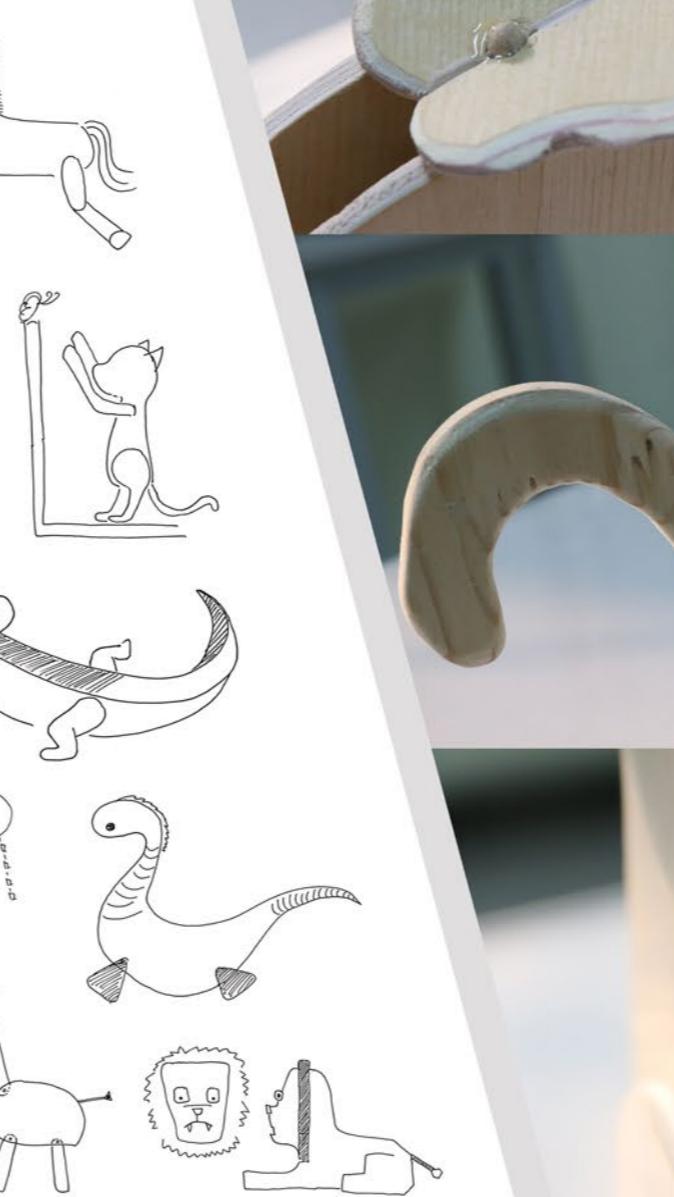
Wooden Toy

Discovering from nature

This program aims to make an interactive wooden toy after exploring the nature phenomena. I chose to realize the capturing butterfly action from cat by using the gear structure and lever. People can make the paws move to touch the butterfly by pushing the tail of the cat.



Brain Storm



Constructions



How to play



Parts





Picture Book
2013/11-01/2014

Everything But Love

This picture book is inspired from one of my stories with boyfriend. The characters are made of wool by needles with iron wire as their bones so that they can perform different movements. And readers will find they had superficial understanding of the previous plots at the end of the story which is strategically written.

Besides, this story has the potential to be made to an interactive one by adding more interaction parts in the methods to tell the story like making it into a three-dimensional one.



The Recycling of the Express Carton

Product Design
03/2014-05/2014

Used the wasted express carton to make a series of interesting facilities, exhibited in the Chaoyang Park in Beijing, aiming to alarm people to care about the waste. We build an amusement park with these used cartons to let children have fun and awareness of recycling and environmental protection.



The steering wheel is made of the empty bottles and the Moon-cake box and can be rotated by the driver. Also, the accelerator pedal and the brake can be controlled by the driver.

The framework of the tires are made of the empty bottles and tied to the central box by the hemp rope. And the whole car is made of environmental-friendly materials consistently.

Processes



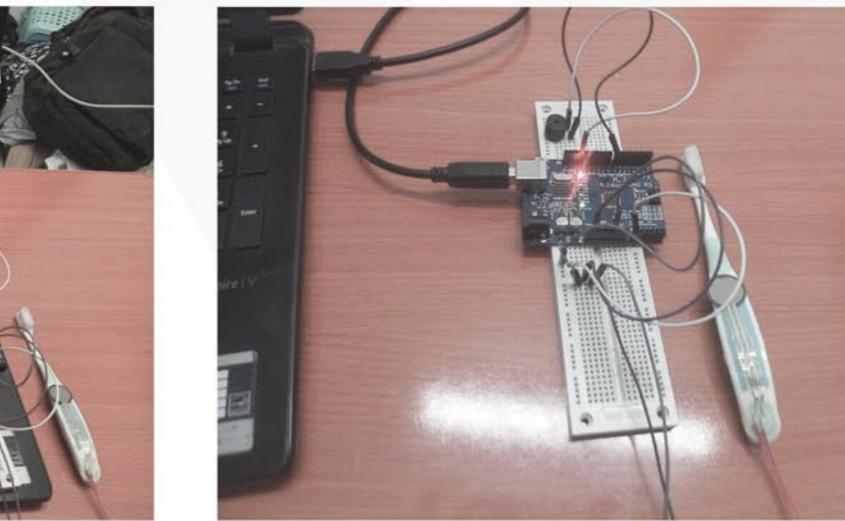


This toothbrush is connected to the pressure sensor along with a game on the smart mirror in the bathroom, which aims to help children to form good habit when they brush their teeth.

How to use



Arduino



The intelligent mirror will play the music to call the children to brush their teeth at the same time every day to help them form good habit.

There will be a game for the children when they are brushing their teeth. The game will help them to brush in a correct way.

The toothbrush is connected to the Arduino and triggered by the pressure sensor. Consequently it can make the kids be interested in brushing their teeth.

