

# BAGCELET

PRODUCT DESIGN FOR INNOVATION

IDEAs

Product

Background

Improvement

INTRO



NOT YET

# INTRODUCTION

GROUP / INDEX

GROUP

INDEX

Not Yet



Jiang Buhui  
**Mechanical Engineer**

Gong Zuhan  
**Mechanical Engineer**

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**Design Technology**

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# Background

Problems / Survey Conclusion

Problems

Survey Conclusion

## Problems

depending on nationality



from GETTY IMAGES

Average Use Time for Plastic Bag :  
**45 minutes**

Time remaining as garbage:  
**20 - 100 years**

**In Mainland ; June 1, 2008 "Plastic limit order"**

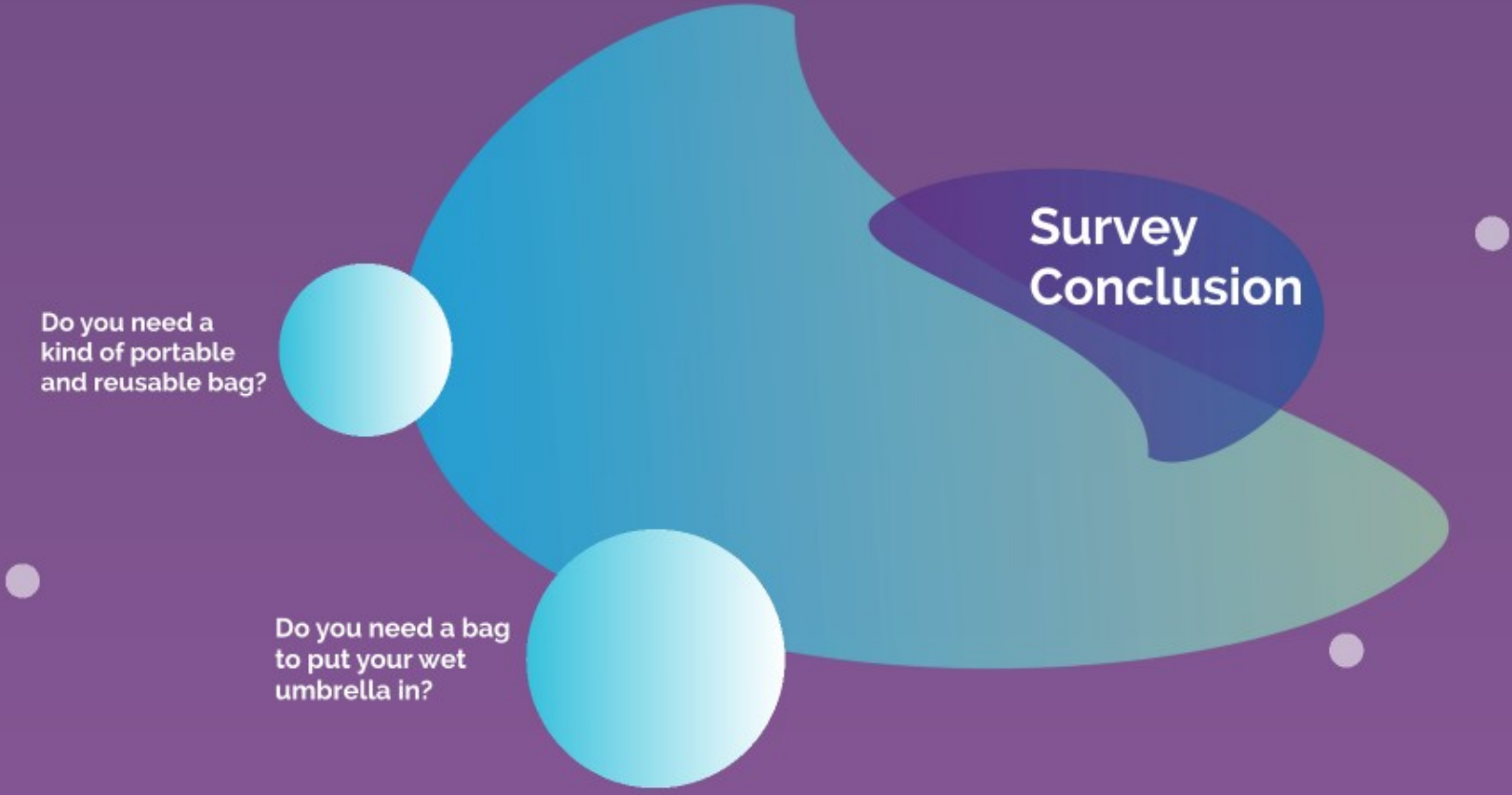
plastic shopping bags with a thickness of less than 0.025 millimeters have been forbidden to be produced

**In Taiwan ; 2.7/everyday | 18million/year**

12-year plan that will officially begin in 2019 with a blanket ban on plastic straws in many stores and restaurants

**In Korea ; 21.6billion/year | 300,000 /umbrella**

'The Crisis of Vinyl', banned to use umbrella cover in Seoul

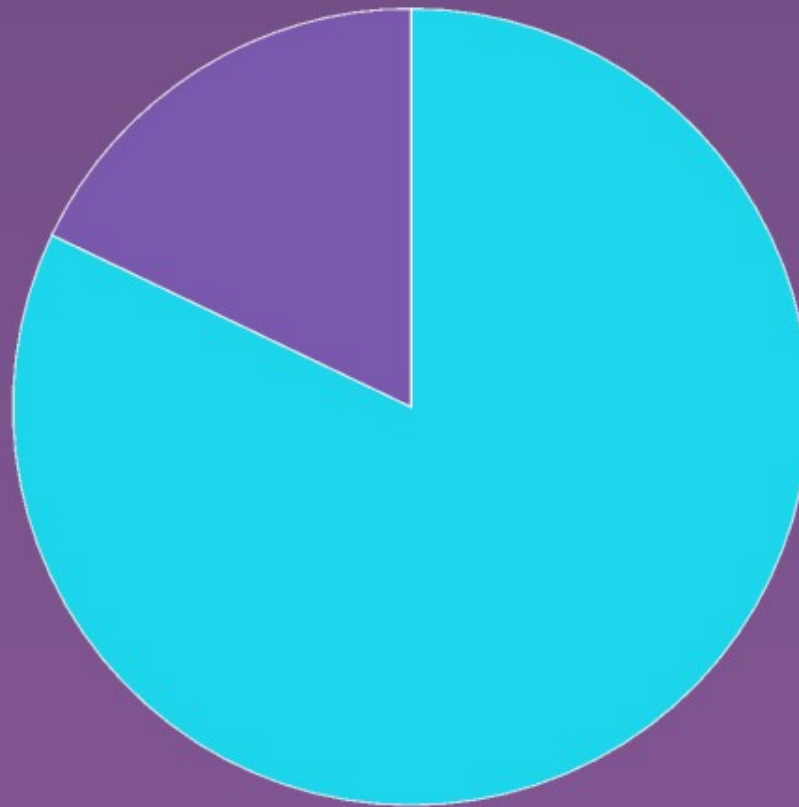


Do you need a  
kind of portable  
and reusable bag?

Do you need a bag  
to put your wet  
umbrella in?

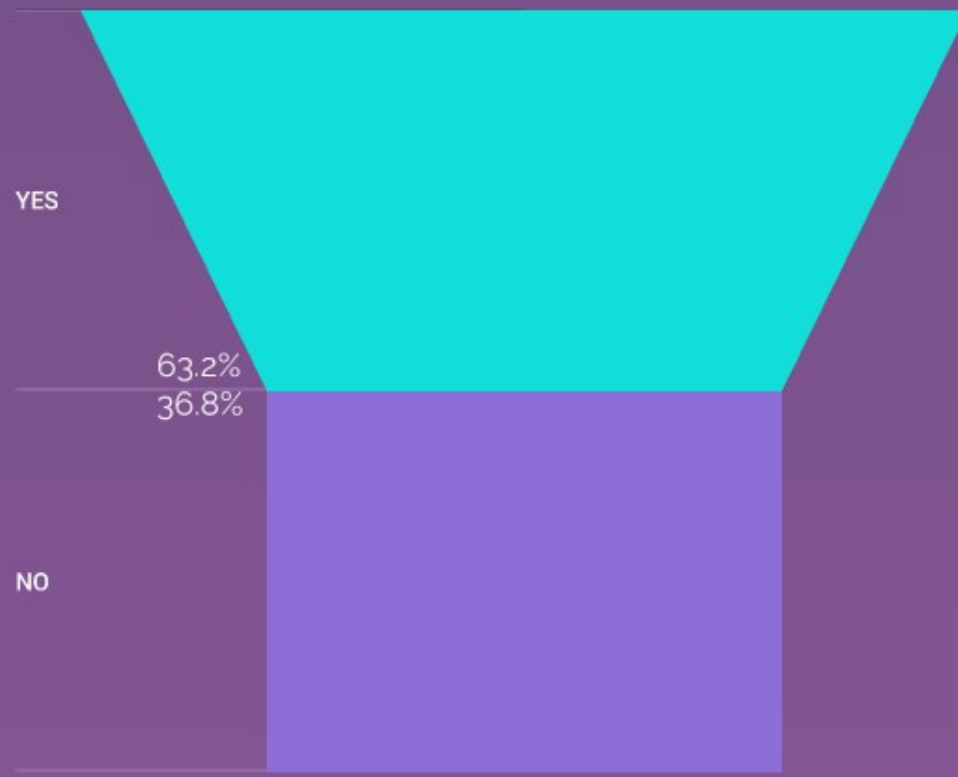
**Survey  
Conclusion**

Do you need a kind of  
portable and reusable bag?



● YES ● NO  
82.1% / 17.9%

Do you need a  
bag to put your  
wet umbrella in?



#Fashionable #portable #clip-on

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# IDEAs

Idea Developing / Modeling

Idea Developing

Modeling



## Find Problems "Umbrella"

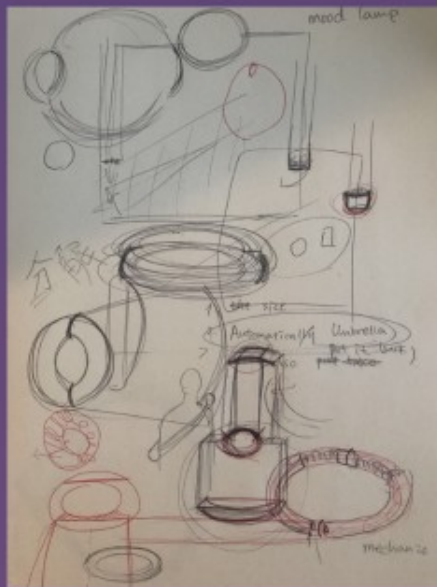


a bag specially for umbrellas



## Developed to "Bracelet"

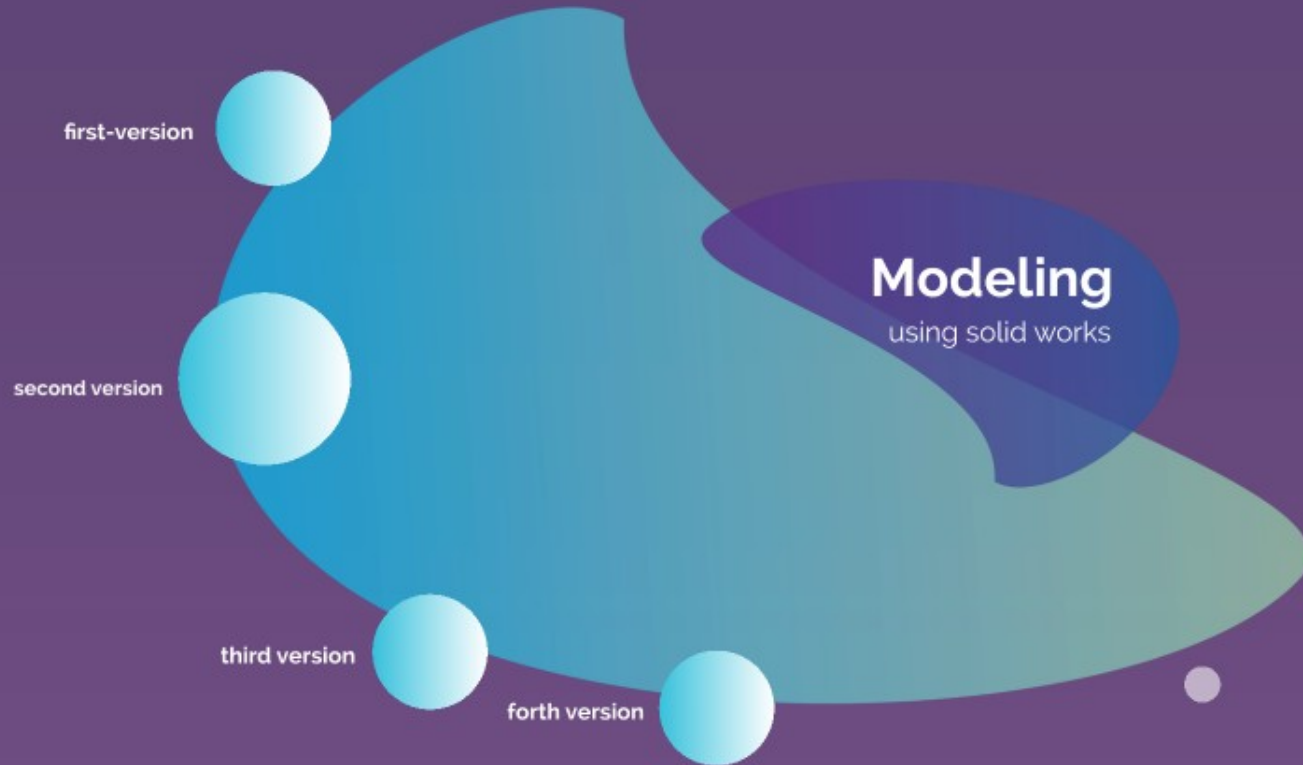
C "improve the recycling efficiency of plastics, the recycling of plastic bags can greatly reduce pollution"



first version



second version

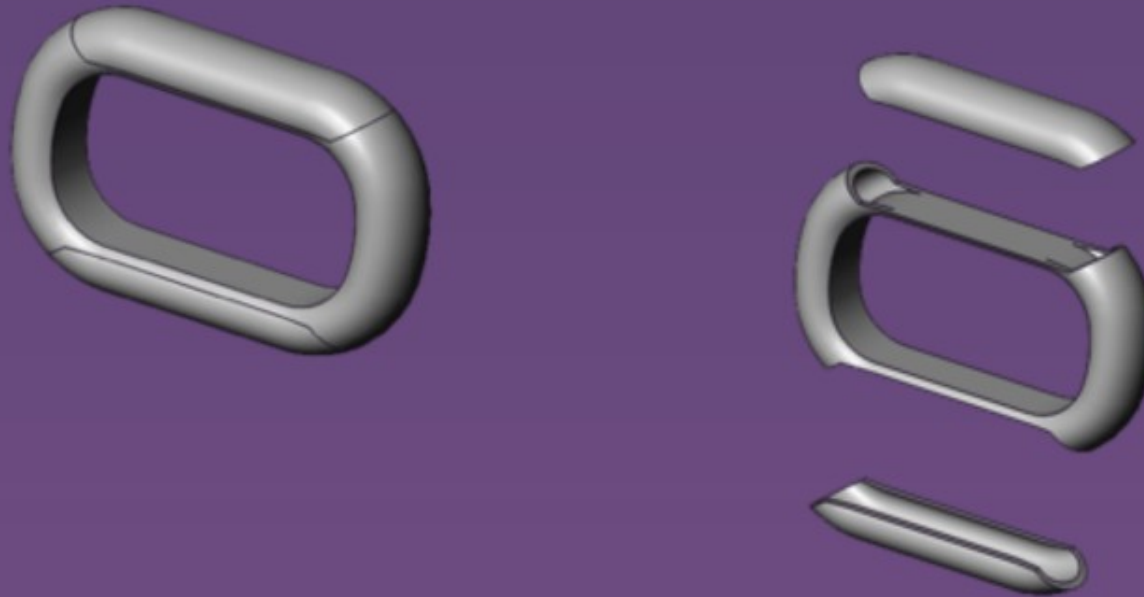


According to the original idea, there are two places to store the bag up and down. The shape of the bracelet is oval and the section is circular.

**First  
version.**

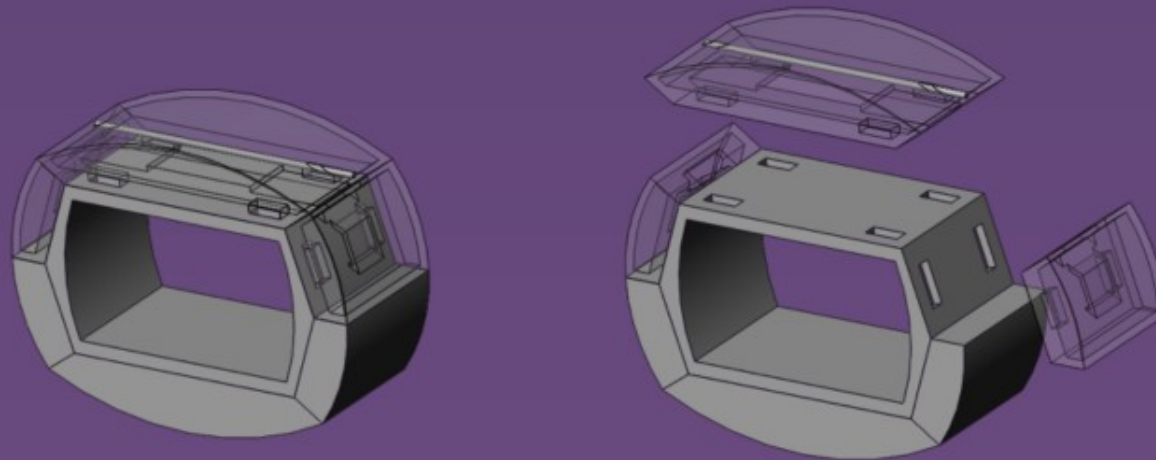


Second  
version.



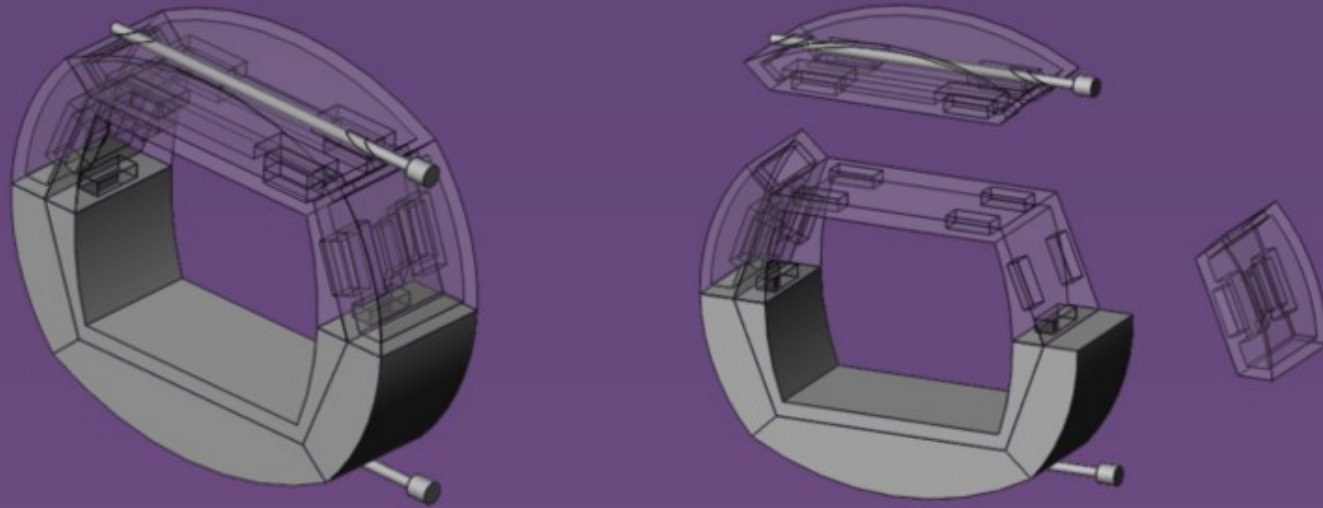
The shape of the bracelet is changed to the square of arc transition, while the section is changed to a straight line by the inner section for the comfort of the user.

### Third version.



The connection is made easier by replacing the surface with the surface. The bag storage module opens at the junction with the main body so that the bag can pass through. The bottom of the bag is connected to the rotation axis of the storage module so that it can rotate along the rotation axis. At the same time, the middle slot is for the bag handle to connect to the handle module. There are hooks in the handle module to hook the bag handle.

## Forth version.



After printing version 3 out, we found that there were many problems, so we carried out the new version to fix it. First of all, the size of the bracelet is reduced. The size of version 3 is very bulky to wear on the hand. After research, the size can be reduced without affecting its functions. Second, expand the outlet of the storage module bag, because if the outlet is small, the bag will be folded, increasing the volume of the bag storage module.

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# Product

BAGCELET / Persona

BAGCELET

Persona

# BAGCELET



## Persona

Sean Lin, M, 20, student



"Diligence is mother of fortune"

Professional:  
**Mechanical engineering**

Healthy:  
**Allergic to bad air condition**

Monthly expense:  
**1500 RMB**

District:  
**Taipei**

personality:  
**Diligence**  
**Optimistic**  
**Willing to try new thing**  
**Eager to learn new**  
**knowledge about**  
**technologies**

Goal:  
**Professional development**  
**Save money**  
**Good interpersonal relationship**

Desires:  
**Travel around the world**  
**Hope to get admission into the MIT**  
**Have a high-pay job**

Interest:  
**Cooking own meal everyday**  
**Go to gym to work out everyday**  
**Jogging every morning**

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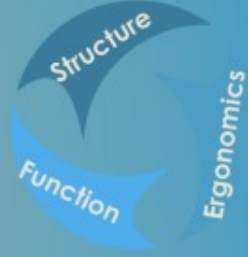
INTRO



NOT YET

# Improvement

future / market



Market

Future Improvement

## Improvement

1. waste of space.
2. appearance and detail of prototype are not delicate and fashionable
3. material of bag can try the one with enough strength while very thin
4. container should be equipped to store water
5. size should be adjustable

## Ergonomic optimization

the shape of the bracelet not suitable for wearing for a long time, and the corners of it is sharp. Should use material that's flexible and soft like a rubber band to fit people's wrist well.

## Function optimization

adding a Bluetooth module and an NFC module to connect with the mobile phone, and can use functions like card and quick payment  
Market application prospects



## Future Improvement



## Market Application Prospects

### **Development potential**

1. people need product like ours
2. a fashionable accessory
3. social recognition and support due to environmental protection

### **Promotion mode**

feasible to develop intelligent devices with NFC and Bluetooth modules on the bracelet to have fast payment function. Cooperate with government and school to have transportation card and student ID card function.

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