

# SURPRISE

Pointer »» Projection lamp »» Memory film

A group of camera accessories designed to let users experience the unknown and surprise in the process of shooting while increasing the fun of life and recording memories

Group06



# Brand research

## Imaging



We give form to a wide range of memories and events through film and photographs, and contribute to enrich emotional lives and stronger human connections.

**Slogan: Value from Innovation**

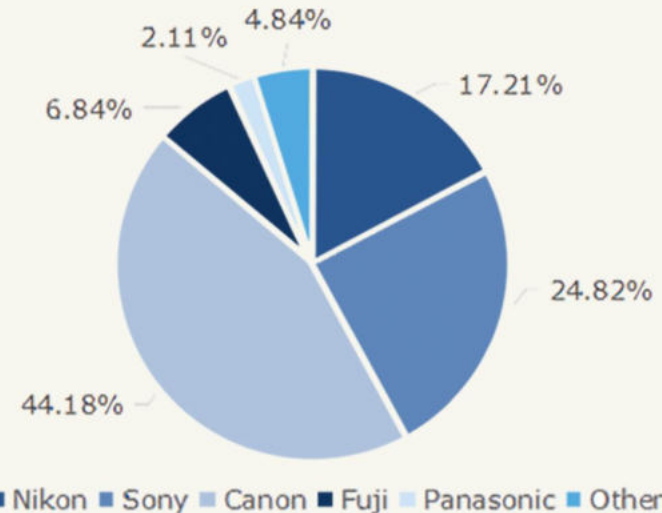
## • Main Products



X Series digital cameras



GFX Series mirrorless digital cameras with large-format sensor



Brand attention of Chinese camera market in 2022

## • Main Products

In order to be able to take photos freely and capture the decisive moment in time, Fujifilm adheres to the original intention of photography, through independent technology research and development, to create a combination of "high picture quality" and "small and portable" X series cameras.



Fujifilm's autonomous "X-Trans CMOS" sensor and image processing technology continuously pursues new heights of picture quality

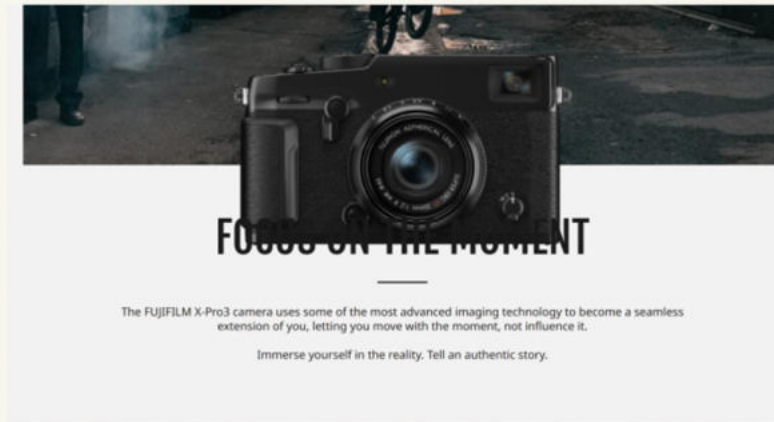


"FUJINON" X bayonet lens group trusted by professional image and video workers



Fujifilm's Painstaking Study of "Color Reproduction" and "Film Simulation"

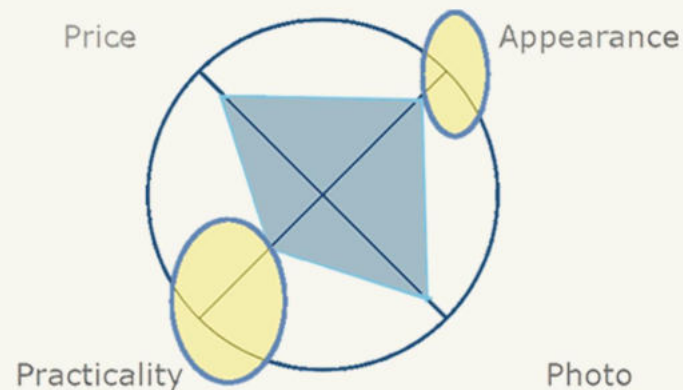
# Product research



## FUJI X-pro3: Living in the moment, not a screen in the sight.

### FOCUS ON THE MOMENT

The FUJIFILM X-Pro3 camera uses some of the most advanced imaging technology to become a seamless extension of you, letting you move with the moment, not influence it. Immerse yourself in the reality. Tell an authentic story.



Radar map of FUJI X-pro3

## • Three types of Xpro3



- *Titanium:* The birth of X series adheres to the elegant appearance, beautiful and functional integration, returning to the original photography design. The moment you raise the camera, you will feel and enjoy the feelings of photography. Excellent perception of titanium finishes. You will soon realize that the camera is more than just a photographic tool

- *Classic black:* Since 2011, the classic black body has been the symbol of the "X-Pro" series. The color inheritance of the classic appearance stimulates the potential of the camera. The combination of titanium metal and painted surface creates excellent texture, doubles the attraction of the camera, highlighting its solid but low-key style.

- *Duratect Coating:* The camera is coated with Duratect to protect the camera while maintaining the classic finish and texture of titanium metal. This means that your favorite camera will retain its color and texture better.

DR Titanium grey is a combination of bare titanium texture and dark finish, with a striking halo, creating an outstanding appearance and giving the camera a different sense of elegance. The DS Titanium Gold retains its natural titanium color, which complements the camera's elegant design and brings out a beautiful contrast of highlights and shadows. Duratect™ coatings are applied to preserve finishes without fading.

(DURATECT is a registered trademark of West Iron City.)



## • Key Specifications

26MP APS-C BSI CMOS sensor

Optical/Electronic hybrid viewfinder

Fold down rear LCD

Rear-facing Memory LCD status panel

Titanium top/bottom plates

4K video at up to 30p, 200Mbps

11 Film Simulation modes, now with 'Classic Neg'



### - Rear-facing Memory LCD status panel

The square panel on the back of the X-Pro3 is emblematic of the camera as a whole. It can show the camera's current settings (and the details of which settings are shown can be configured separately for stills and video mode), or it can show a graphic representation of the film carton flap that relates to the Film Simulation mode currently in use.

It's an eight-color display with a fairly limited viewing angle, and is most clearly seen when tilted away from you at a 45 degree angle (i.e. when you're holding the camera away from your body and tilting it forward) and, at 176 x 176 pixels, it's fairly low resolution. Because it's a memory LCD, it can retain its last-shown image with very **little battery drain**.



## - 11 Film Simulation modes, now with 'Classic Neg'

Since the production and development of film in 1934, Fujifilm has been committed to the study of color. The film simulation mode draws on the technology and experience that Fujifilm has accumulated over the years. Carefully selected patterns have an excellent set of colors and tones, and creating different color works reflects the photographer's feelings during the shooting. Another mode of film simulation has now been added to the expanded field of colour expression, including Classic feature and Eterna.



## • Specification

<b>Price</b>	
MSRP	\$1799 (standard finish, body only), \$1999 (DR finish, body only)
<b>Body type</b>	
Body type	Range finder-style mirrorless
Body material	Titanium

# • Specification

Sensor	
Max resolution	6240 x 4160
Image ratio w:h	3:2
Effective pixels	26 megapixels
Sensor size	APS-C (23.5 x 15.6 mm)
Sensor type	BSI-CMOS
Processor	X-Processor 4
Color space	sRGB, Adobe RGB
Color filter array	X-Trans
Image	
ISO	Auto, 160-12800 (expands to 80-51200)
Boosted ISO (minimum)	80
Boosted ISO (maximum)	51200
Custom white balance	Yes
Image stabilization	No
Uncompressed format	RAW
JPEG quality levels	Fine, normal
File format	<ul style="list-style-type: none"> <li>JPEG (Exif v2.3)</li> <li>Raw (Fujifilm RAF, 14-bit)</li> </ul>
Optics & Focus	

Screen / viewfinder	
Articulated LCD	Tilting
Screen size	3?"
Screen dots	1,620,000
Touch screen	Yes
Screen type	TFT LCD
Live view	Yes
Viewfinder type	Electronic and Optical (tunnel)
Viewfinder coverage	95%
Viewfinder magnification	0.78x (0.52x 35mm equiv.)
Viewfinder resolution	3,690,000
Photography features	
Exposure modes	<ul style="list-style-type: none"> <li>Program</li> <li>Aperture priority</li> <li>Shutter priority</li> <li>Manual</li> </ul>
Built-in flash	No
External flash	Yes (via hot shoe)
Self-timer	Yes
Metering modes	<ul style="list-style-type: none"> <li>Multi</li> <li>Center-weighted</li> <li>Average</li> <li>Spot</li> </ul>
Exposure compensation	±5 (at 1/3 EV steps)
WB Bracketing	Yes
Videography features	
Format	MPEG-4, H.264
Modes	<ul style="list-style-type: none"> <li>4096 x 2160 @ 30p / 200 Mbps, MOV, H.264, Linear PCM</li> <li>4096 x 2160 @ 25p / 200 Mbps, MOV, H.264, Linear PCM</li> <li>4096 x 2160 @ 24p / 200 Mbps, MOV, H.264, Linear PCM</li> </ul>

Microphone	Stereo
Speaker	Mono
Storage	
Storage types	Dual SD/SDHC/SDXC slots (UHS-II support)
Connectivity	
USB	USB 3.2 Gen 1 (5 GBit/sec)
HDMI	No
Microphone port	Yes
Headphone port	No
Wireless	Built-in
Wireless notes	802.11b/g/n + Bluetooth
Remote control	Yes (wired, cable release or smartphone)
Physical	
Environmentally sealed	Yes
Battery	Battery Pack
Weight (inc. batteries)	497 g (1.10 lb / 17.53 oz)
Dimensions	141 x 83 x 46 mm (5.55 x 3.27 x 1.81?)
Other features	
Orientation sensor	Yes
GPS	None

Autofocus	<ul style="list-style-type: none"> <li>Contrast Detect (sensor)</li> <li>Phase Detect</li> <li>Multi-area</li> <li>Center</li> <li>Selective single-point</li> <li>Tracking</li> <li>Single</li> <li>Continuous</li> <li>Touch</li> <li>Face Detection</li> <li>Live View</li> </ul>
Autofocus assist lamp	Yes
Manual focus	Yes
Number of focus points	425
Lens mount	Fujifilm X
Focal length multiplier	1.5x



## • User evaluation to camera

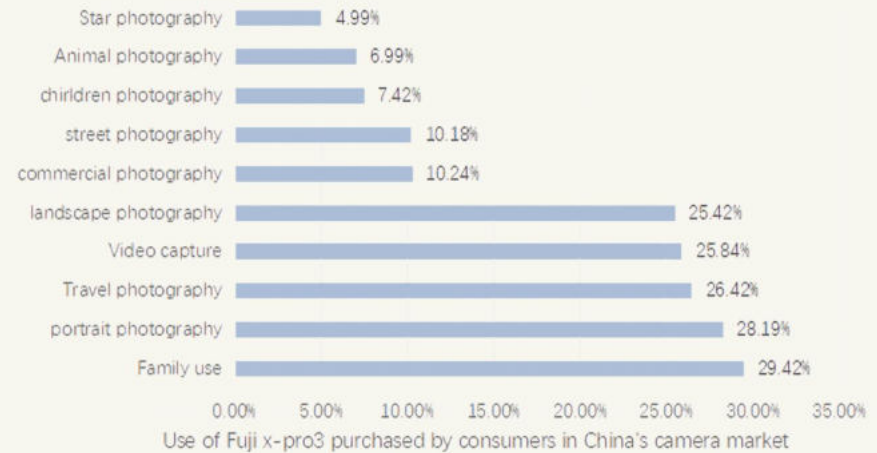
What we like	What we don't
<ul style="list-style-type: none"><li>• Excellent image quality</li><li>• Range of attractive film/color modes</li><li>• Optical viewfinder gives interesting experience</li><li>• Electronic viewfinder further boosts flexibility</li><li>• Flip-down screen excellent for waist-level shooting</li><li>• Attractive, detailed 4K video</li><li>• USB charging is useful</li><li>• Faux film stock sub monitor is undeniably cool</li></ul>	<ul style="list-style-type: none"><li>• Optical finder doesn't work as well with wide or long lenses as predecessor</li><li>• Obscured rear screen limits some styles of shooting</li><li>• AF point indication in OVF makes near-to-far parallax shift unpredictable</li><li>• Some lenses (particularly the F1.4s) aren't especially fast to focus, undermining the immediacy of street shooting</li><li>• Face/Eye detection mode a little prone to false-positives and requires input if your subject temporarily turns away</li><li>• ISO dial is more decorative than utilitarian</li></ul>

## • Conclusion

The X-Pro3 is, by design, a divisive camera: it's intended to appeal to **two very specific types of photographer** (the waist-level street shooter and the style-conscious optical viewfinder user), to the exclusion of others. And 'appeal' is a key word there. The looks, the titanium top and base-plates, the rear screen and, to a degree, the price tag are all intended to make the camera seem exclusive and alluring.



# Market research



## • FUJI Accessories for Xpro3

-It's more like a high-end leather case than just a regular camera bag. The leather finish contrasts sharply with the titanium, giving a look and texture not previously seen on mirrorless cameras.



-This streamlined design improves grip without compromising the camera's functionality or portability.

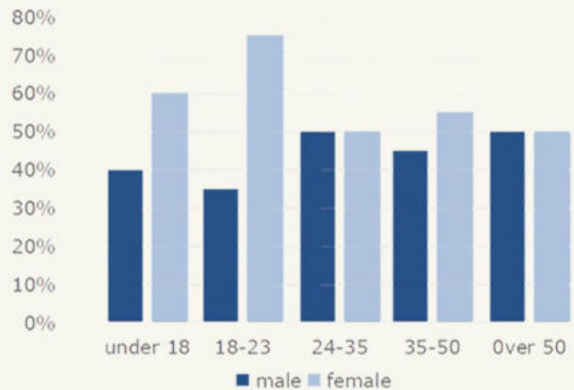


Most popular camera accessories for fuji in the social internet.

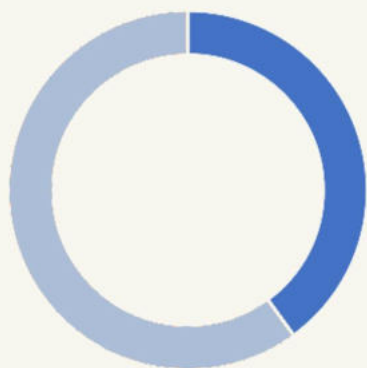
**key words: vintage ornamental daily**



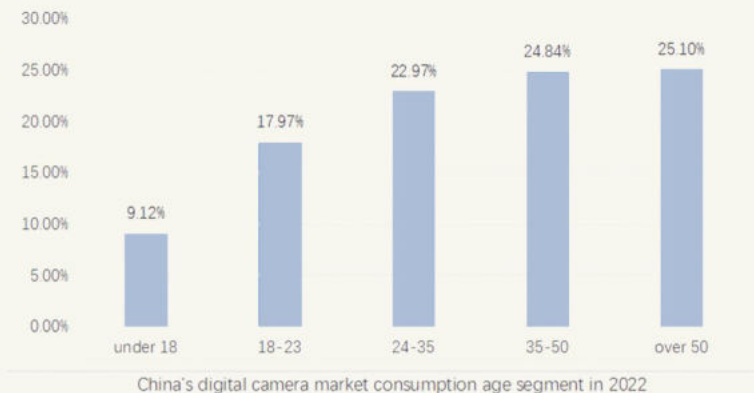
# User research



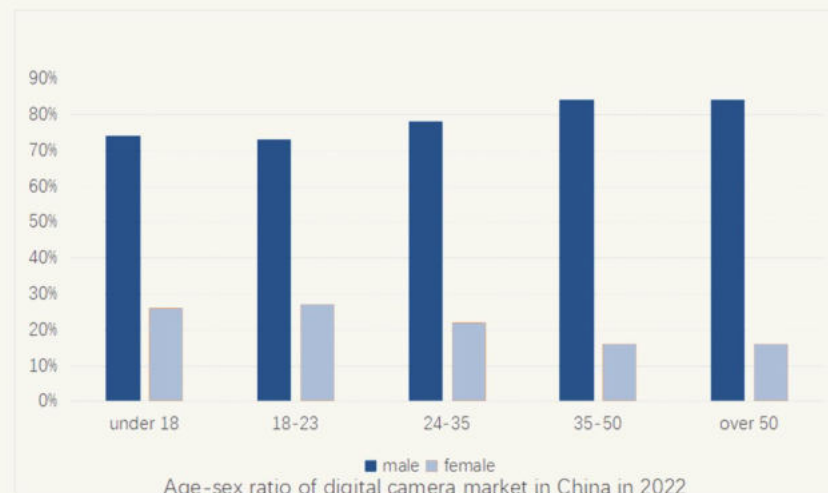
Age-sex ratio of Fuji camera market in China



Fuji user sex ratio



China's digital camera market consumption age segment in 2022



Age-sex ratio of digital camera market in China in 2022

After research, we found that not like other camera brands, Fuji has a higher percentage of female users.

On websites with a predominantly female audience, Little red book, Fuji had the highest number of searches of any camera brands.





## • Interview

QUESTION	A 33, MAN, LIBERAL PROFESSION	B 29, WOMAN, INTERNET COMPANY	C 25, WOMAN, ENGINEER
<b>WHEN AND WHERE DO YOU USUALLY GO TO TAKE PHOTOS? WHAT DO YOU TAKE PHOTOS OF?</b>	Go out will take on the way to meet interesting will take, travel, of course, will also take.	There is no limit, think of shooting, street sweeping, shop performance, exhibition, portrait shooting. With friends, with customers, with finally. Post work on social media. Take photo on street by self.	Most of them will be scenery, a few will be people. I use it when I'm hanging out with friends or when I'm sweeping the streets.
<b>DO YOU TAKE PICTURES ON RAINY AND SNOWY DAYS? DO YOU TAKE PICTURES WHEN YOU'RE MOVING, WHEN YOU'RE WALKING, WHEN YOU'RE IN A CAR? IF SO, DID IT BOTHER YOU DURING THE PHOTO SHOOT?</b>	It takes pictures in rain and snow, it takes pictures while walking, no trouble, it's a very good machine, even though I'm using a manual focus lens.	/	/
<b>WHAT'S THE PROBLEM WITH USING THE CAMERA (INCLUDING CARRYING IT WHILE WALKING, TAKING PHOTOS, LOOKING THROUGH PHOTOS, ALL ACTIVITIES DESIGNED FOR THE CAMERA)?</b>	/	It feels bad without the handle, but I added it myself. Then the open screen is easy to lead to wiring problems. My back screen just broke.	Some parameters will not be used.
<b>HAVE YOU BOUGHT ANY CAMERA ACCESSORIES? (LANYARD, CAMERA COVER, TRIPOD, HOT BOOT, ETC.) WHAT COMFORTABLE EXPERIENCE OR TROUBLE DID YOU HAVE DURING USE?</b>	/	I've bought them all. Nothing works except the handle. At present, the machine is AA quick pull belt and wooden handle two accessories, the tripod is a horse path, the appearance rate is relatively low, but very useful.	Bought lenses and camera charging heads.
<b>WHEN DO YOU USUALLY USE THE CAMERA INVERSION SCREEN? IS THERE ANY INCONVENIENCE IN USING THIS SCREEN?</b>	I don't really use it, except when people ask me to look at pictures, and then I go home and look at it on my computer.	The screen is good appearance level. But they don't flip most of the time. However, if a scene is very good, it will check whether it is taken in the flip screen. The inconvenience is that it is too easy to break, just broke	I usually take a bunch of shots and go back and look at them.
<b>DO YOU CARE ABOUT CLEANING THE CAMERA, INCLUDING DUST, FINGERPRINTS, PEELING PAINT, ETC.? DO YOU BUY SPECIAL CLEANING SUPPLIES FOR CLEANING/PAINTING?</b>	Don't mind, I like to use traces, don't touch paint, it's just a tool. Occasionally wipe.	Bought cleaning supplies but didn't use them. Don't mind, the camera is for use, not for supply.	/
<b>DO YOU CARE ABOUT CAMERA WEAR? HAVE YOU NOTICED WHEN THE WEAR? IS THERE ANY WAY TO PREVENT WEAR AND TEAR?</b>	I don't care, so I don't pay attention. It's worn out. It's worn out.	I don't care. The camera is for use, just try to use it carefully.	No wear but it fell once.
<b>WHEN YOU GO OUT WITHOUT POCKETS, DO YOU USUALLY PUT YOUR CAMERA IN YOUR BAG OR CARRY IT WITH A LANYARD?</b>	Use lanyard.		/
<b>IS IT EASY TO LOSE THE CAMERA COVER?</b>	Don't bring camera cover out.		/
<b>WHAT FACTORS SHOULD YOU PAY ATTENTION TO WHEN BUYING A CAMERA?</b>	Function & Performance Appearance Branding	Yes  Yes Yes	No  Yes Yes

## • 5WIH

### Who

An unmarried white-collar worker

### What

Use the camera to record the moment, record the different mood.

### When

In the free time after work and on vacation. Her favorite part of the day is the natural light in the early morning and evening, and the dim light in the evening. She takes pictures in all seasons and different weathers.

### Why

She likes to take pictures as she pleases, not letting composition or surroundings limit her. I like the joy and memories brought by looking at photos.


### Where

Seaside, parks, beaches, snack lanes, streets, coffee shops and other places that reflect people's real life. And the various points of the journey.







### How

Working days are from 9 to 5, usually with overtime. In her free time, she will hang out with her friends and take pictures. "I love taking beautiful pictures of landscapes and friends. I love natural, vivid pictures that don't take composition into account. I love when my friends find themselves in the camera. Every time I go home and check the photos I took, I can always recall how I felt at that time. "

## • Persona





**Jie Gao**  
"let's back to 90's"

 Age	27
 Occupation	Product manager
 Education	master
 Marital status	Single
 Income	¥ 15000
 Location	Shanghai

<b>Personality</b>	<b>Motivation</b>
Pure <input type="checkbox"/> Complex <input type="checkbox"/>	Practicality <input type="checkbox"/>
Inflexible <input type="checkbox"/> Casual <input type="checkbox"/>	Aesthetics <input type="checkbox"/>
Passive <input type="checkbox"/> Active <input type="checkbox"/>	Price <input type="checkbox"/>
Vintage <input type="checkbox"/> Trendy <input type="checkbox"/>	Quality <input type="checkbox"/>

**Bio** 📌  
Jie Gao likes the signs of use and old filters. she likes the tone of film and the way it was used, she has an affinity of all things retro and vintage. doesn't even consider the cost performance. **She likes click the shutter without thinking and finally look at the photos on the screen with the mentality of opening a blind box.** The meaning of photography for her is not in the moment, but in the memory.

**Goals** 📌  
• Have more vintage camera accessories.  
• Have a sense of surprise during the shoot.  
• Like street humanistic photography.

**Favorite apps** 📌  
 

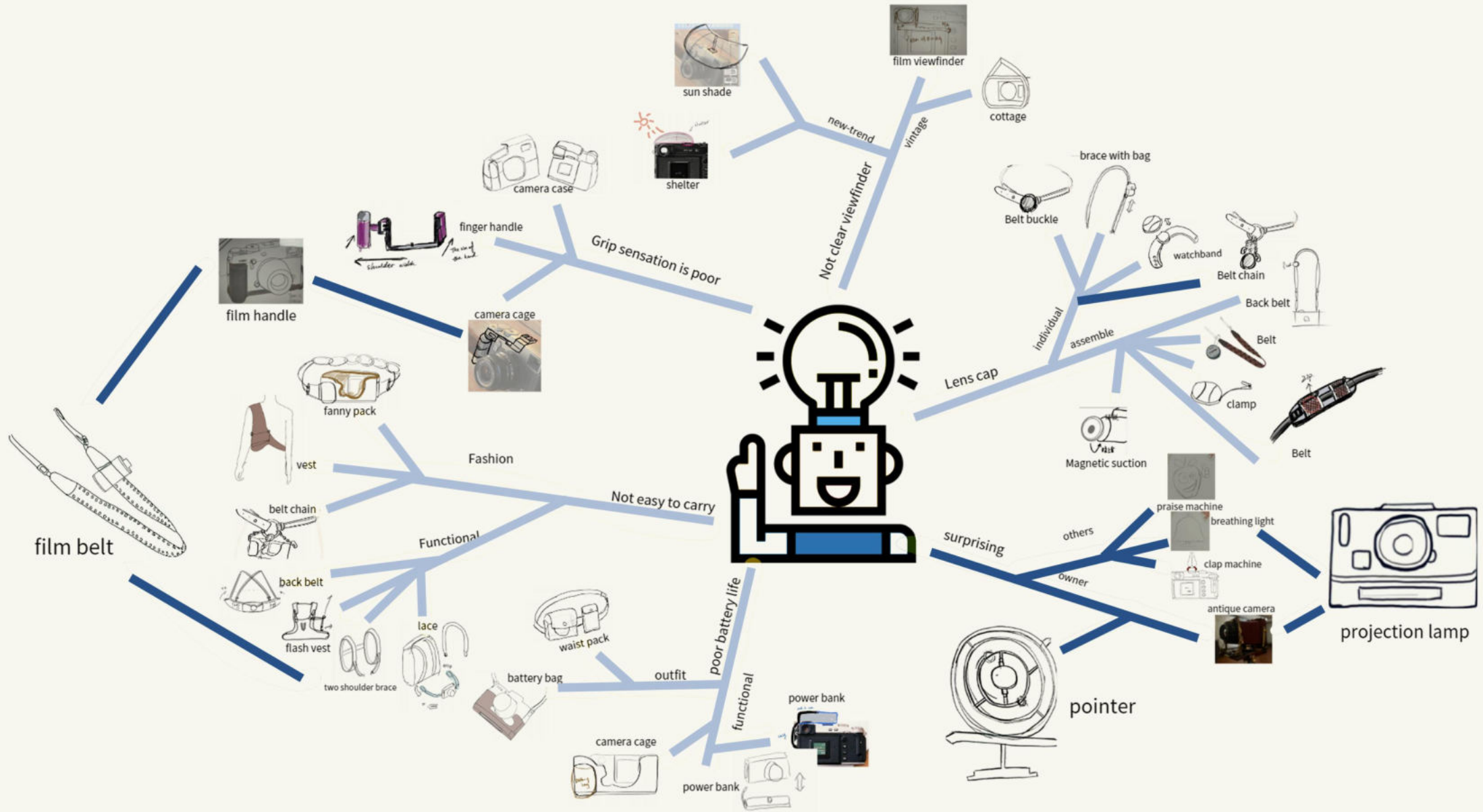
**Frustrations** 📌  
• Not easy to carry.  
• The screen is sometimes broken.  
• Grip sensation is poor.  
• Take a lot of favourite pictures but there is no place to see them all the time.  
• Camera accessories are few and uninspiring  
• Camera cover is easy to lost.

**Hobbies and interests** ★  
• She likes to take regular trips to Shanghai's alleyways for random street photography  
• She likes to hang out with like-minded people, even if it's just a walk after dinner  
• She likes to take pictures of people around her, and helping her friends document their lives gives her satisfaction  
• She likes to make a tent, a polaroid and print out pictures to keep. She will try any physical way to document her life, because she is more satisfied with a paper photo that she can hold in her hand than an electronic one





# Brain storm



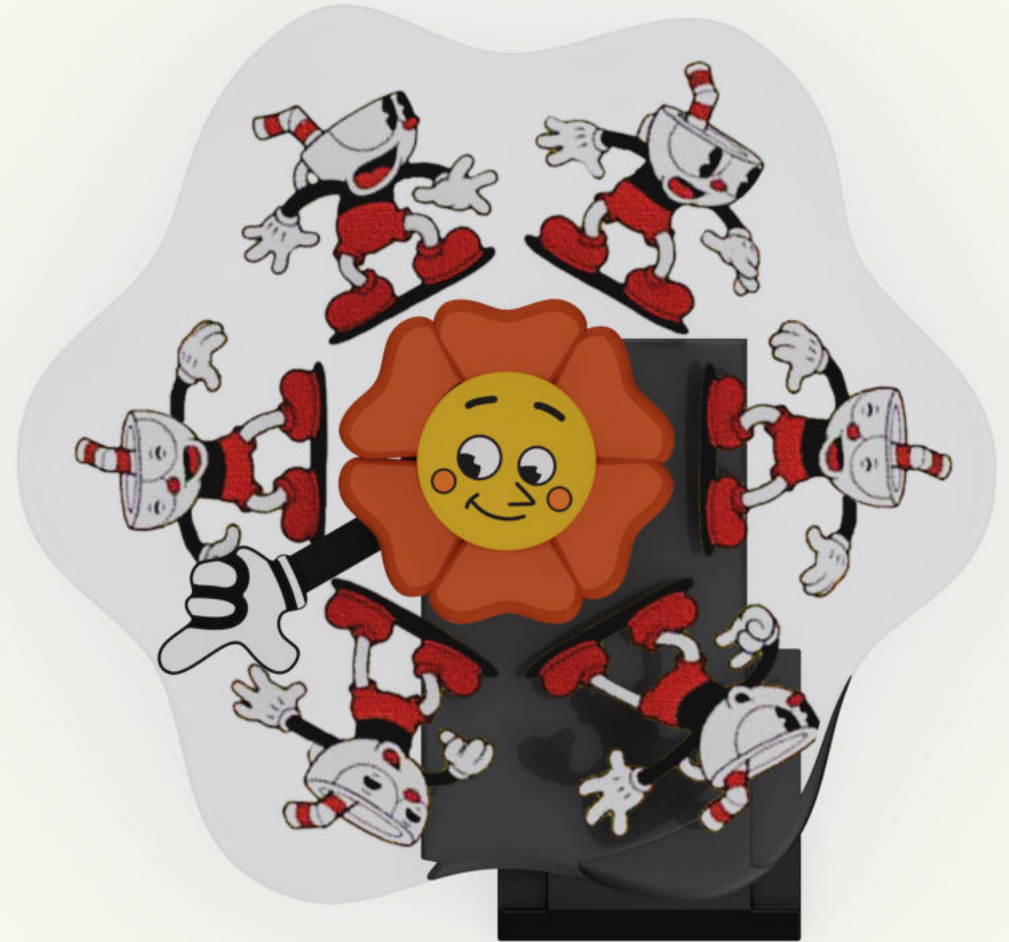


## Ideation 1

# Pointer

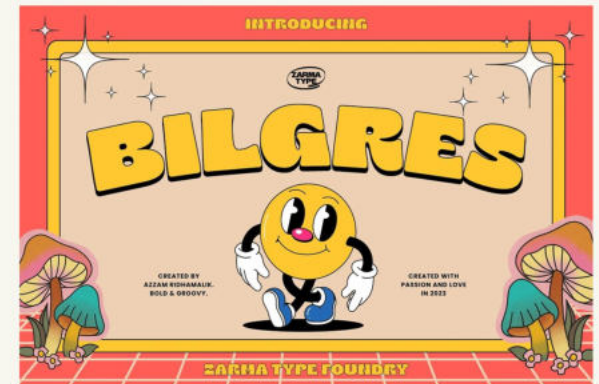
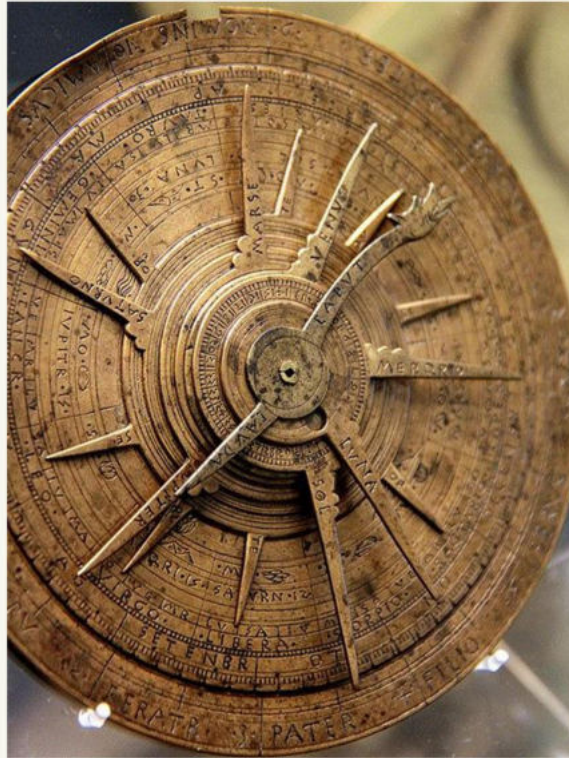
The pointer is used when user goes out to street to take photos without the purpose and don't know where to go. The pointer will help her to make a decision.

The surprise is that user don't kown where she will go and what view she can capture.

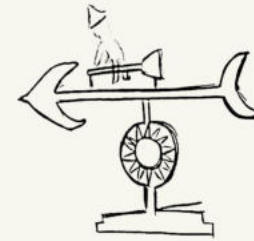
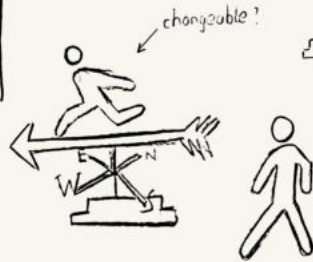
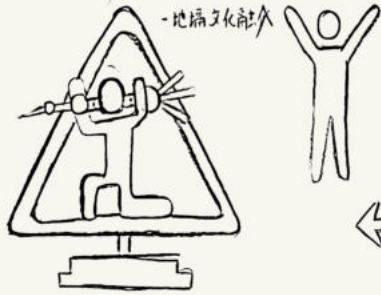
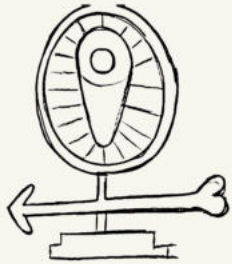




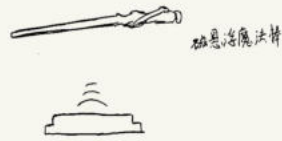
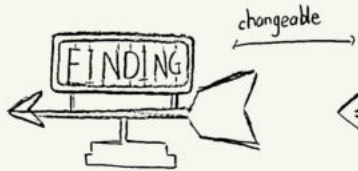
# • Moodboard



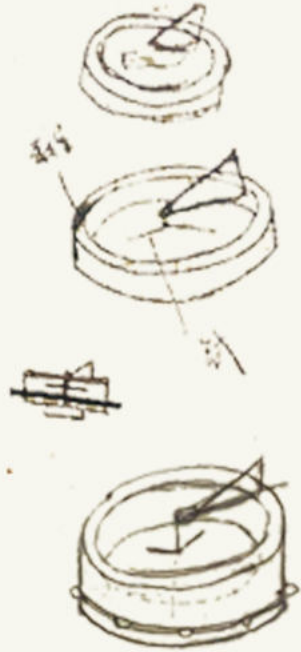
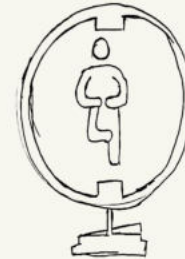
# • Sketch



D1. 将现代元素融入旧风格，  
增加趣味性



D2. 传统复古风格

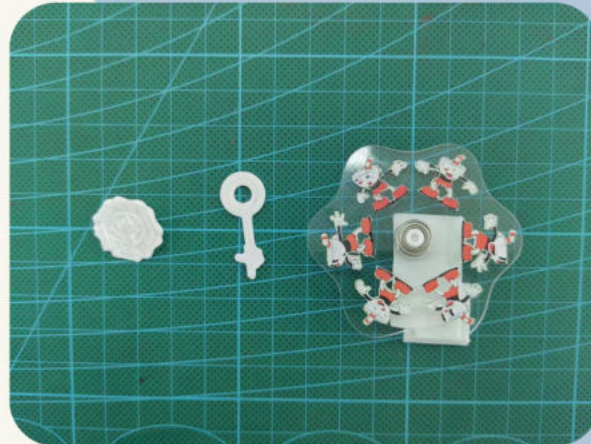
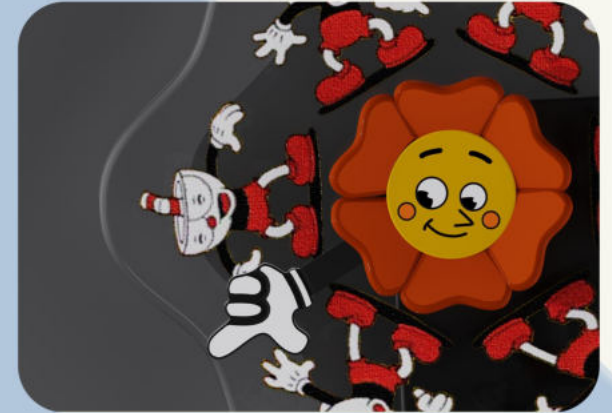
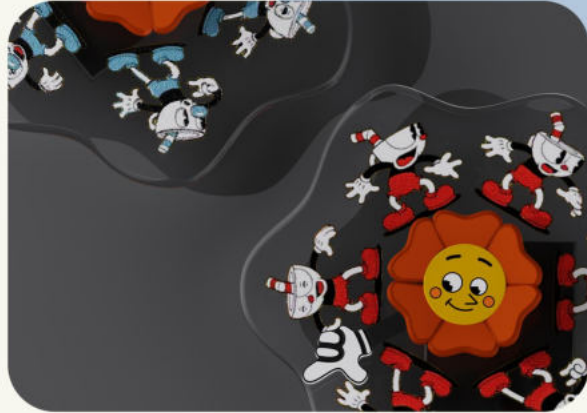
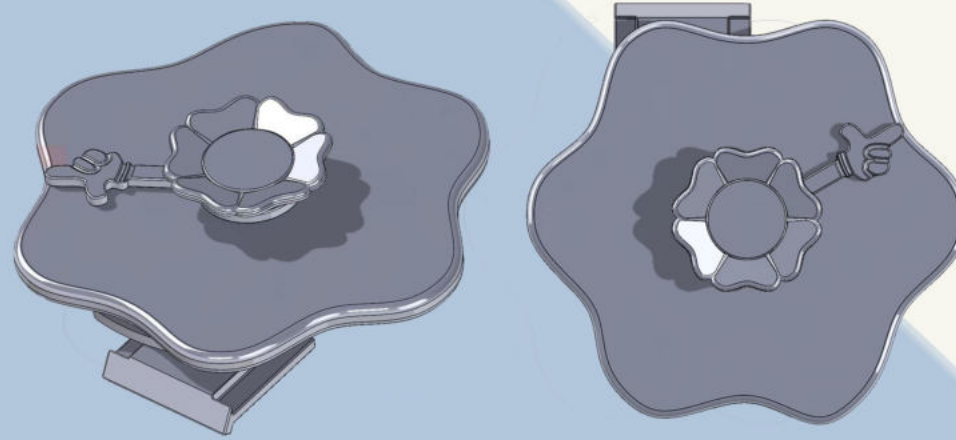


D3.

- 多个箭头，多个方向
- 不明意义的词汇
- 神秘感



# • CAD&Prototype







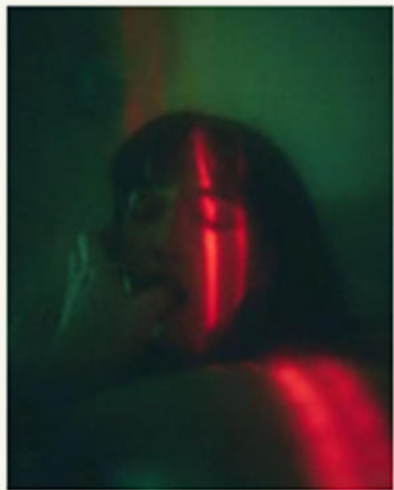
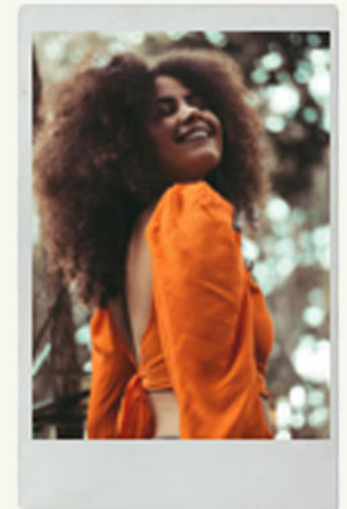
## Ideation 2

# Projection Lamp

This is a projection lamp attached to a hot boot. It can add atmosphere and surprise when shooting at night. Take out the photo form like a polaroid to replace the internal projection. The projection gives a different effect, making the night shooting more interesting.



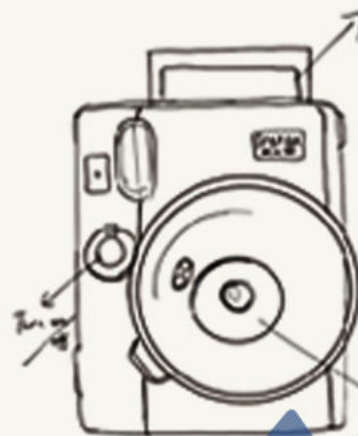
# • Moodboard



# • Sketch



Polaroid film  
change light effect

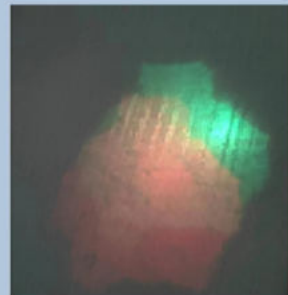
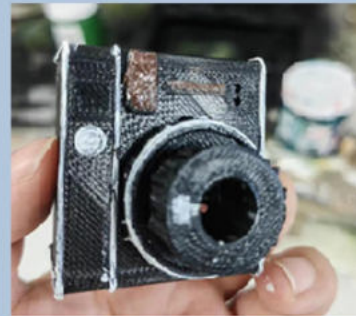
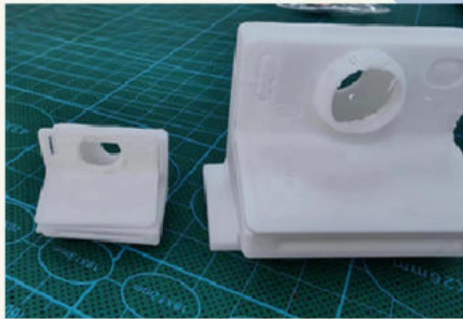
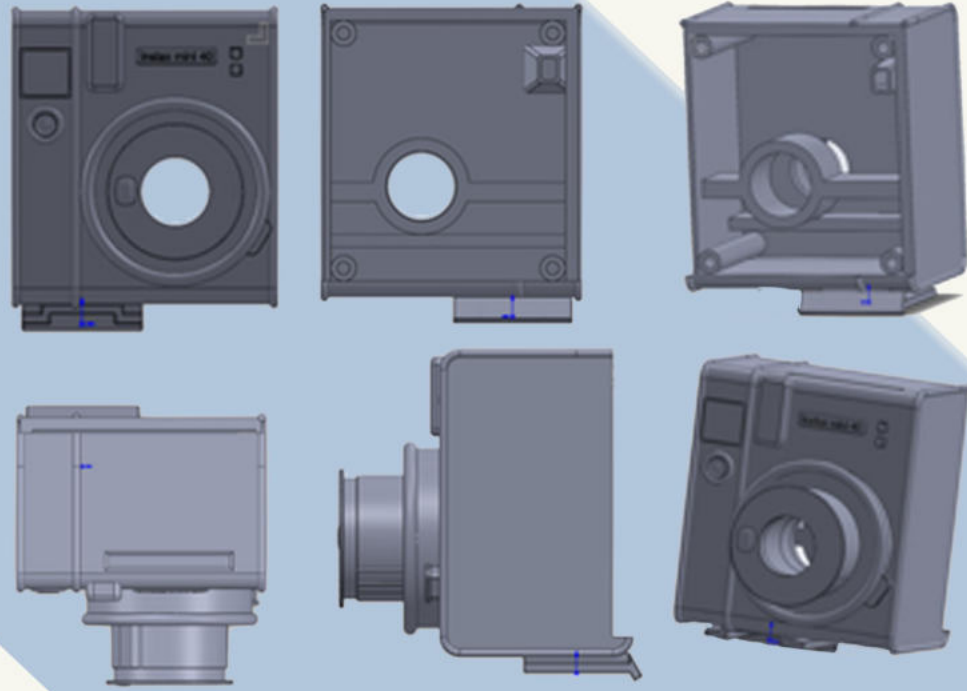


Light





# • CAD&Prototype





## Ideation 3

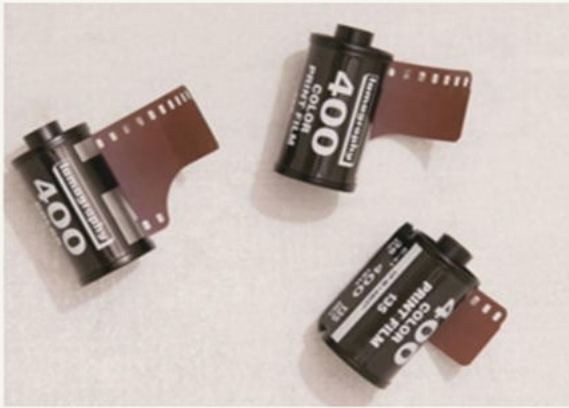
# Memory Film

Keep the Memories with you. Based on film modeling shell, design a one-side pull-out telescopic camera strap. The strap is made into a film strap, but users print out meaningful photos of themselves, insert them into the strap, and slowly fill it space by space. Redefine the unknowability of film, retain its anticipation and recall.



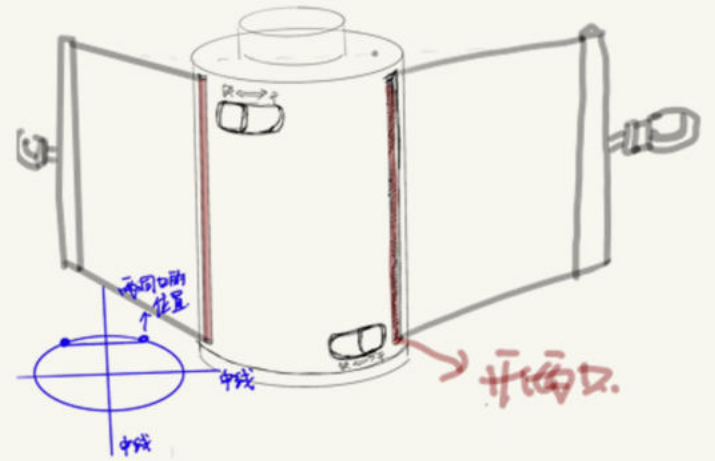


# • Moodboard

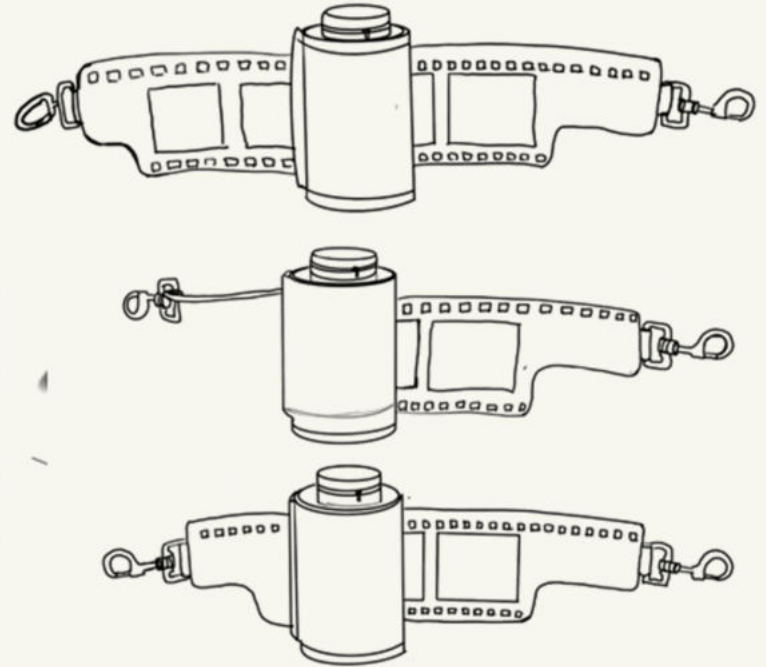
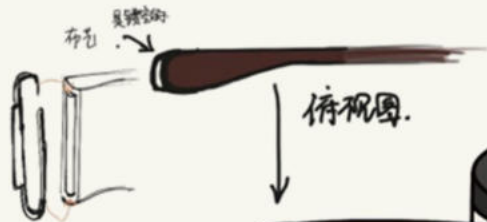




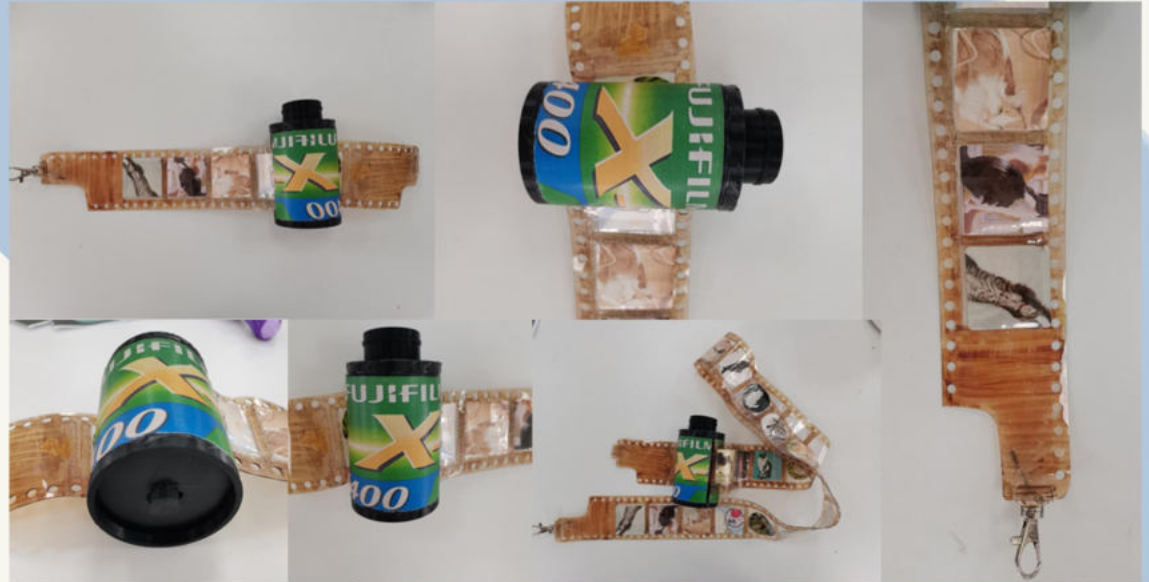
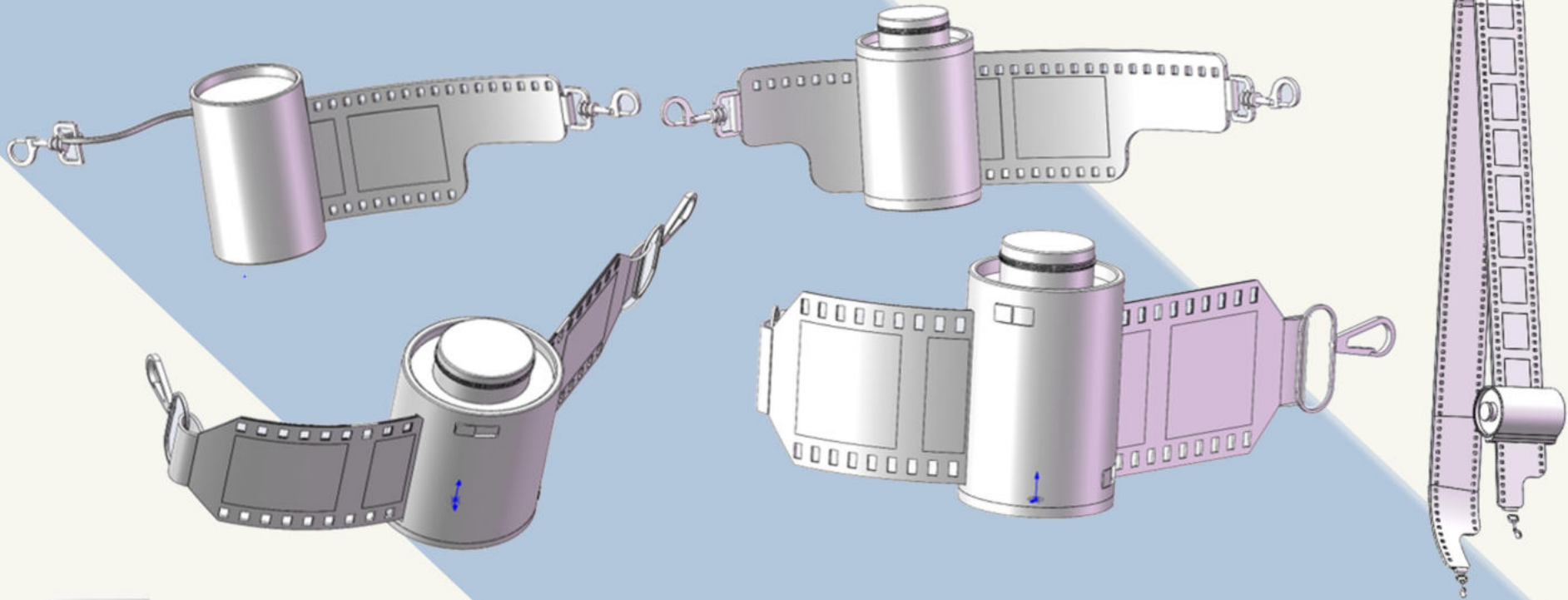
# • Sketch



把回忆背在身上.

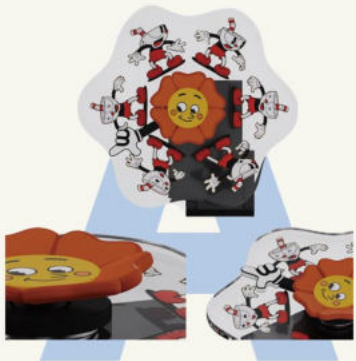


# • CAD&Prototype





# Final Design







# Manufacturing & Features

Cover  
PP  
Injection molding

Belt B  
TPU  
Injection modelling

Cylinder  
PP  
Injection molding

Transparent film  
PP  
Blow modelling

Clockwork spring  
Stainless steel  
Cold rolling, quenching

Camera back case  
PC+ABS  
Pressure forming

Hollow photograph  
PP  
Injection molding

Camera housing  
PC+ABS  
Pressure forming

Decorative flash lamp  
PP  
Injection molding

Switch  
PP  
Injection molding

Lens glass  
Glass  
Cutting

Lens barrel  
PC+ABS  
Pressure forming

Hot boot cover  
PC+ABS  
Pressure forming

Bag  
Allumen, leather  
Pressure casting, sewing

Hook buckle  
pinchbeck alloy  
casting

Cover  
PP  
Injection molding

Belt A  
TPU  
Injection modelling

Spring  
Stainless steel  
Cold rolling, quenching

Base support  
PP  
Injection molding

Button  
PP  
Injection molding

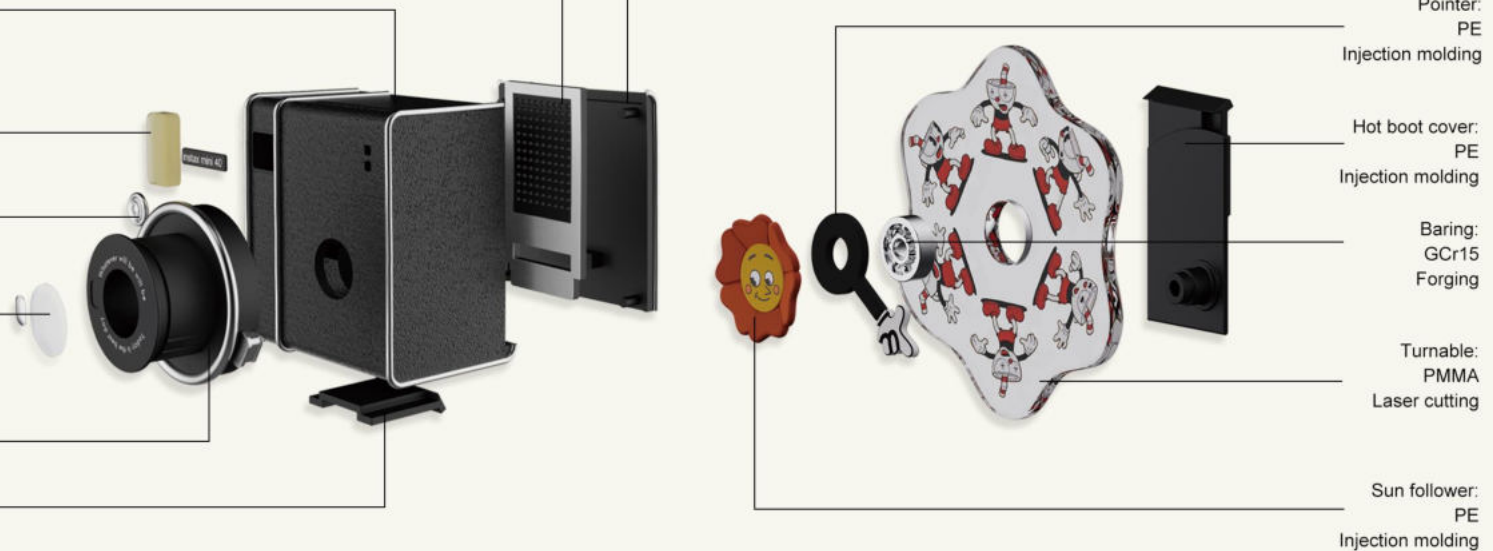
Pointer:  
PE  
Injection molding

Hot boot cover:  
PE  
Injection molding

Baring:  
GCr15  
Forging

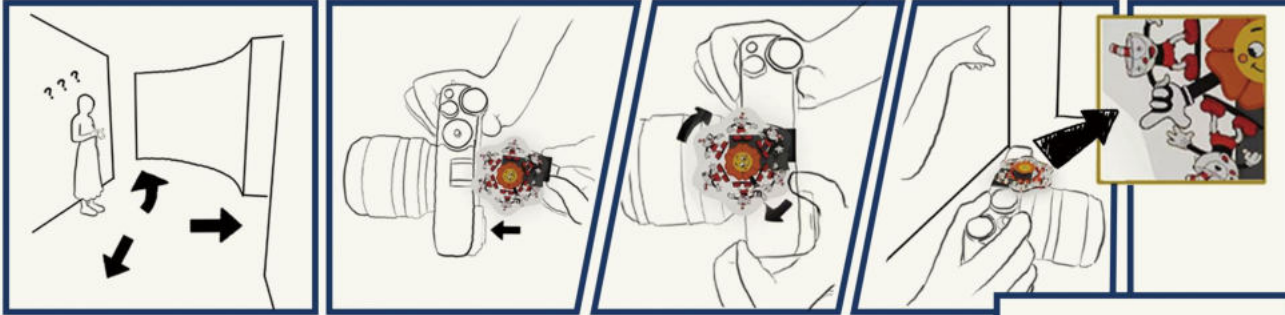
Turnable:  
PMMA  
Laser cutting

Sun follower:  
PE  
Injection molding



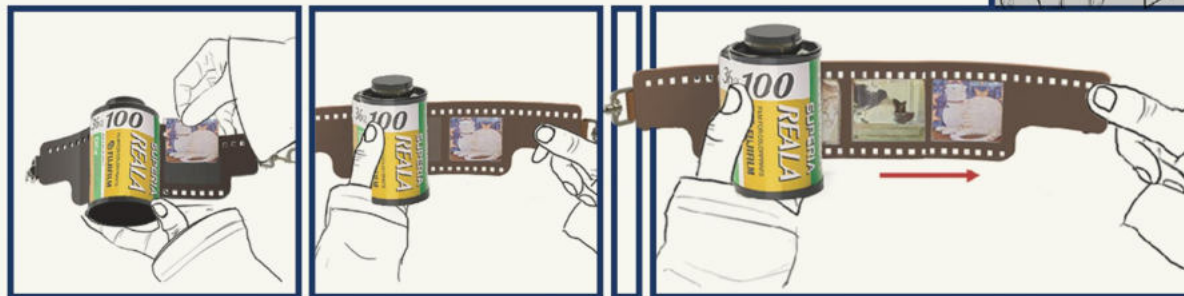
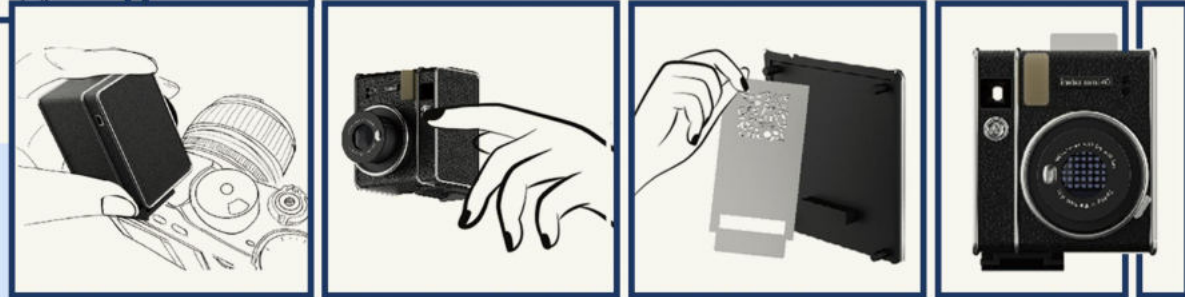


# Using Scenario



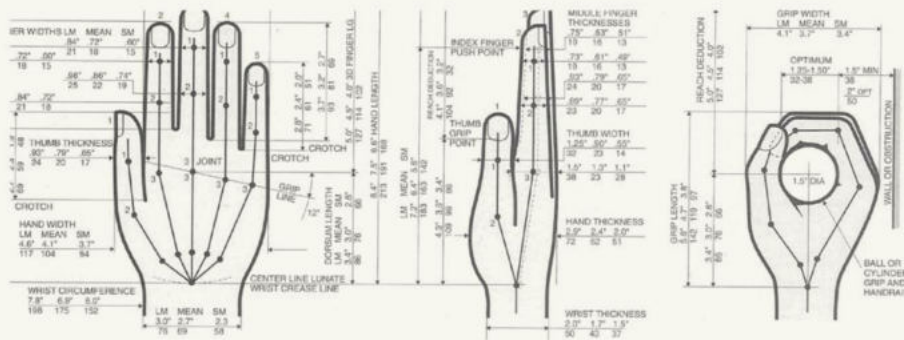
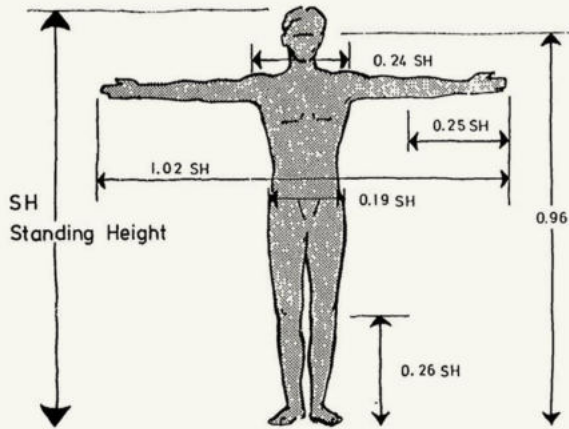
1. Can use it when you don't know which direction to go
2. Connect the pointer through the hot shoe
3. Turn the wheel by hand
4. When the pointer stops, you can follow the direction indicated

1. Attach the projection light to the camera through the hot boot
2. Turn on the light by pressing the button on the front
3. Replace different shades
4. Interactive like a polaroid photo, changing the lighting effect
5. When shooting at night, it's too monotonous
- 6.7.8. Wow! A lot of light and shadow effects, nice!



1. Place the photograph in a clear film
- 2.3. Grab the contracted end of the strap and pull it out
4. When the pointer stops, you can follow the direction indicated
- 5.6. Attach and secure the two latches on the strap to each side of the camera
- 7.8. Take a picture by hanging the camera around your neck with a sling





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😊 **Slice® Ergo Pull™ Slider**  
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## Pointer

The pointer rotates with the dial below, and users can decide the rotation speed of the dial by themselves according to different usage scenarios. When she wants to decide the direction, she can use a smaller force to pivot the dial to make it stop in a short time. When she wants to dial the turntable to get fun, she can quickly dial the turntable with a greater force. From this aspect, the structure of this product is reasonable.

For ergonomics reasons, when the pointer is attached to the camera, no part of it goes beyond the back of the camera. As a result, users will not feel uncomfortable when wearing the camera with the strap and taking pictures.

However, the feeling of surprise and joy may not be as strong as it was at the beginning after a long time use. The structure of the pointer is relatively simple and allows for private customization by the user. The pointer structure can be made modular to extend the user's usage time.



## Projection Lamp

The shade is too small to cut. We need more sophisticated instruments to get the effect we want.

## Memory Film

In the beginning, the design is two-way drawing, and after the internal structure study, it is found that the realizability is low. So it was changed to high and low coaxial double rope structure. After discussion with the tutor, the final decision was made to keep the length of one side as a fixed length, while the other end was flexible. The final implementation principle is the same as the retractable tape measure.

We should pay more attention to the feasibility of internal structure and make timely adjustments through prototype.



## Reflection

Our initial design direction was to address practical issues such as the tendency of batteries to run out of power and the difficulty of carrying cameras. However, these issues are common in various types of cameras, and we have not highlighted the characteristics of the X-Pro3. So we started designing solutions based on the characteristics of the camera.

The X-Pro3 is a special camera with the biggest feature of not considering its composition when taking photos, which brings a sense of surprise to users. During the tutorial process, tutors informed us that this camera has a film style. So we have designed three products based on the above camera features. They each have their own unique features and perfectly fit persona's liking for surprises.

In group collaboration, we found it important to choose our favorite ideas and delve deeper, as this gives us more motivation to improve and think about products from multiple perspectives. Secondly, a reasonable division of labor and a clear timeline are also important factors in completing tasks in a step-by-step manner.