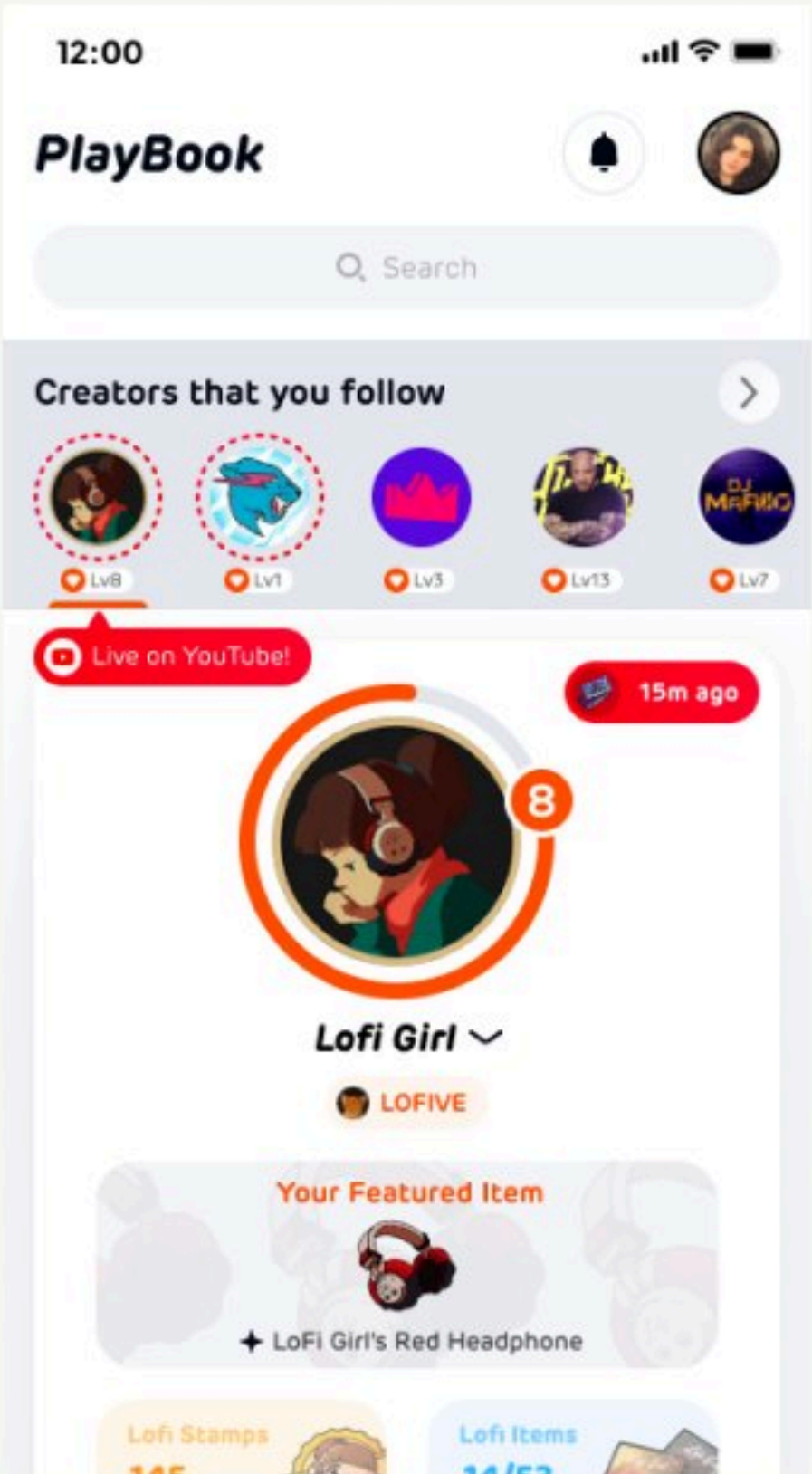


COMPLEX TOOLS · PRODUCT FLOWS · RESEARCH

Making complex systems understandable.

Yucheng Feng (Tobie)

I connect the structure behind a product to the decisions people make within it.



科目	科目名称	科目代码	科目余额	科目余额	科目余额	科目余额
资产类	流动资产	1001	1001.00	1001.00	1001.00	1001.00
负债类	流动负债	2001	2001.00	2001.00	2001.00	2001.00
所有者权益类	所有者权益	3001	3001.00	3001.00	3001.00	3001.00
成本类	生产成本	4001	4001.00	4001.00	4001.00	4001.00
损益类	主营业务收入	5001	5001.00	5001.00	5001.00	5001.00
损益类	主营业务成本	5101	5101.00	5101.00	5101.00	5101.00
损益类	其他业务收入	5201	5201.00	5201.00	5201.00	5201.00
损益类	其他业务成本	5301	5301.00	5301.00	5301.00	5301.00
损益类	管理费用	5401	5401.00	5401.00	5401.00	5401.00
损益类	销售费用	5501	5501.00	5501.00	5501.00	5501.00
损益类	财务费用	5601	5601.00	5601.00	5601.00	5601.00
损益类	营业外收入	5701	5701.00	5701.00	5701.00	5701.00
损益类	营业外支出	5801	5801.00	5801.00	5801.00	5801.00
损益类	所得税费用	5901	5901.00	5901.00	5901.00	5901.00
损益类	净利润	6001	6001.00	6001.00	6001.00	6001.00

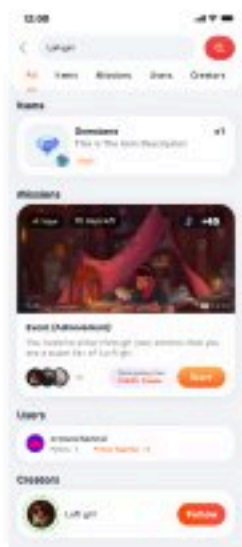


PLAYBOOK / SMT / QINGJU / COMMONS FRIDGE

THE THREAD THROUGH MY WORK

One approach, four kinds of evidence.

Structure makes the system coherent. Behaviour makes the next step clear. Judgement decides what is worth building.

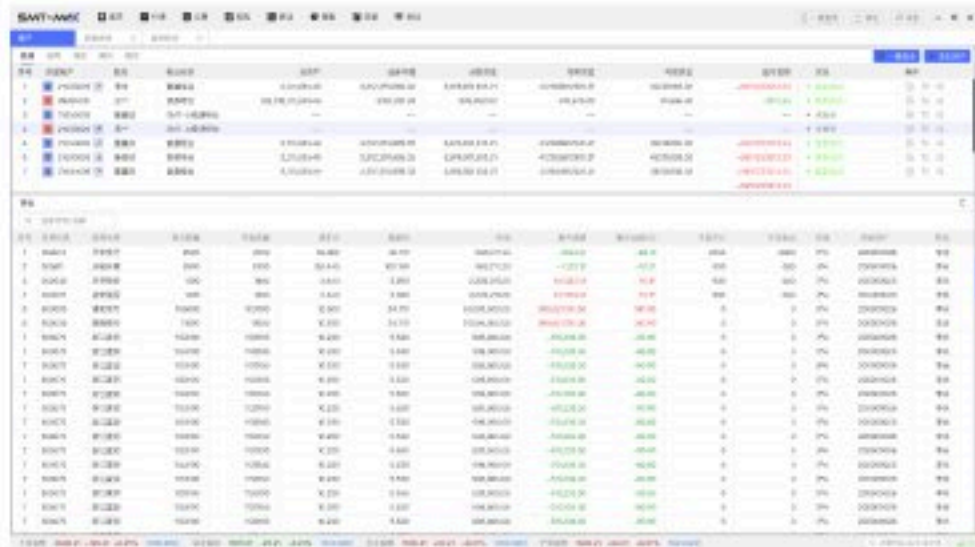


01 / PLAYBOOK

Behaviour

Rules, object states and consequential actions.

[Explore the case →](#)



02 / SMT

Structure

Business units, component boundaries and variants.

[Explore the case →](#)



03 / QINGJU

Judgement

Research synthesis, priorities and low-fidelity flows.

[Explore the case →](#)



04 / COMMONS FRIDGE

Judgement

Research reframing, permission and physical interaction.

[Explore the case →](#)

PLAYBOOK / CREATOR PLATFORM

Turn creator rules into fan experiences.

Creators configure participation and rewards. Fans understand what to do, what they own and what a choice will cost.

ROLE & SCOPE

ROLE

Studio UX + UI; App UX, flows and states.

TEAM

Refract Labs founders + a separate App visual designer.

TIMELINE

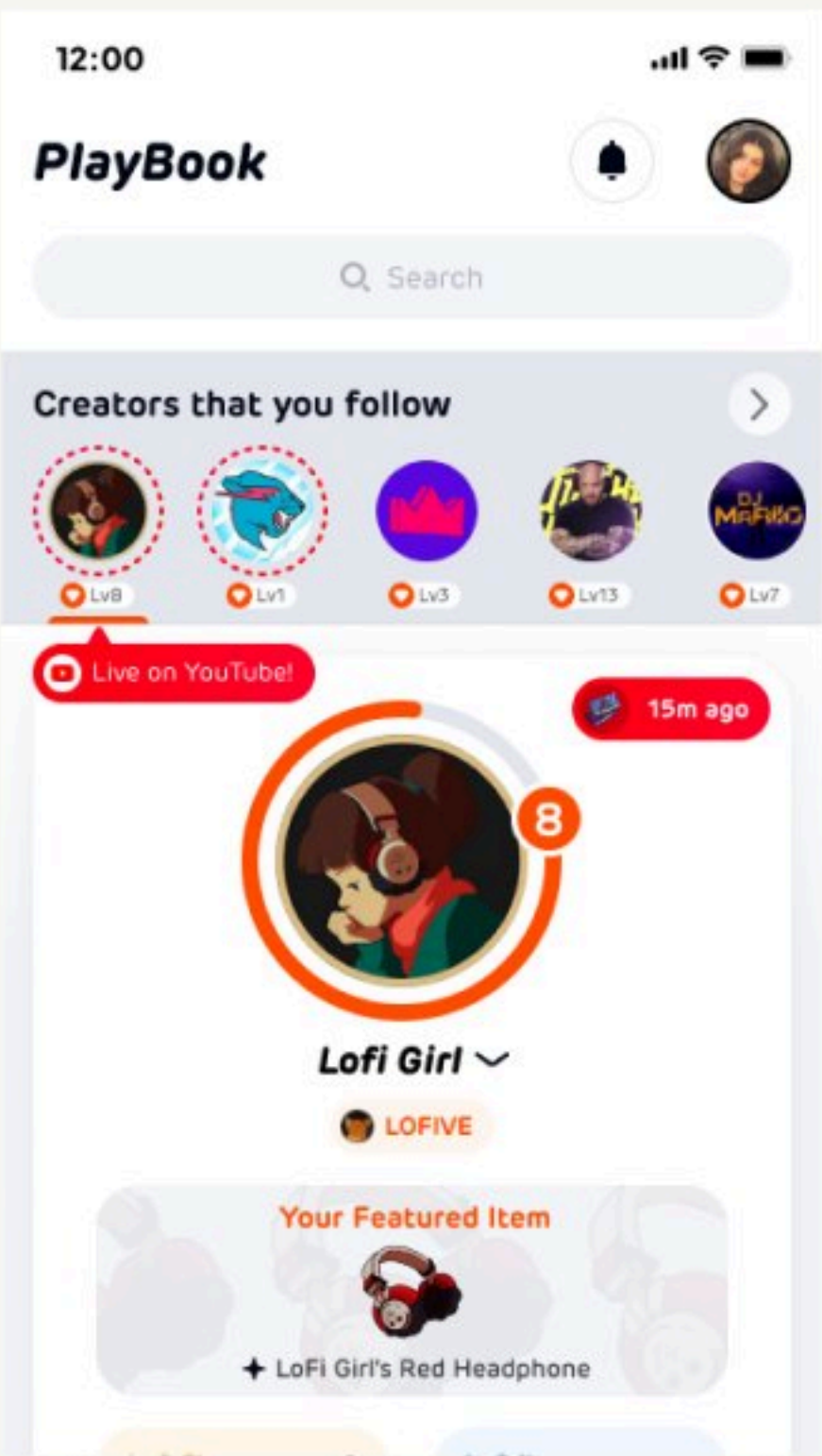
2023–2024

PLATFORM

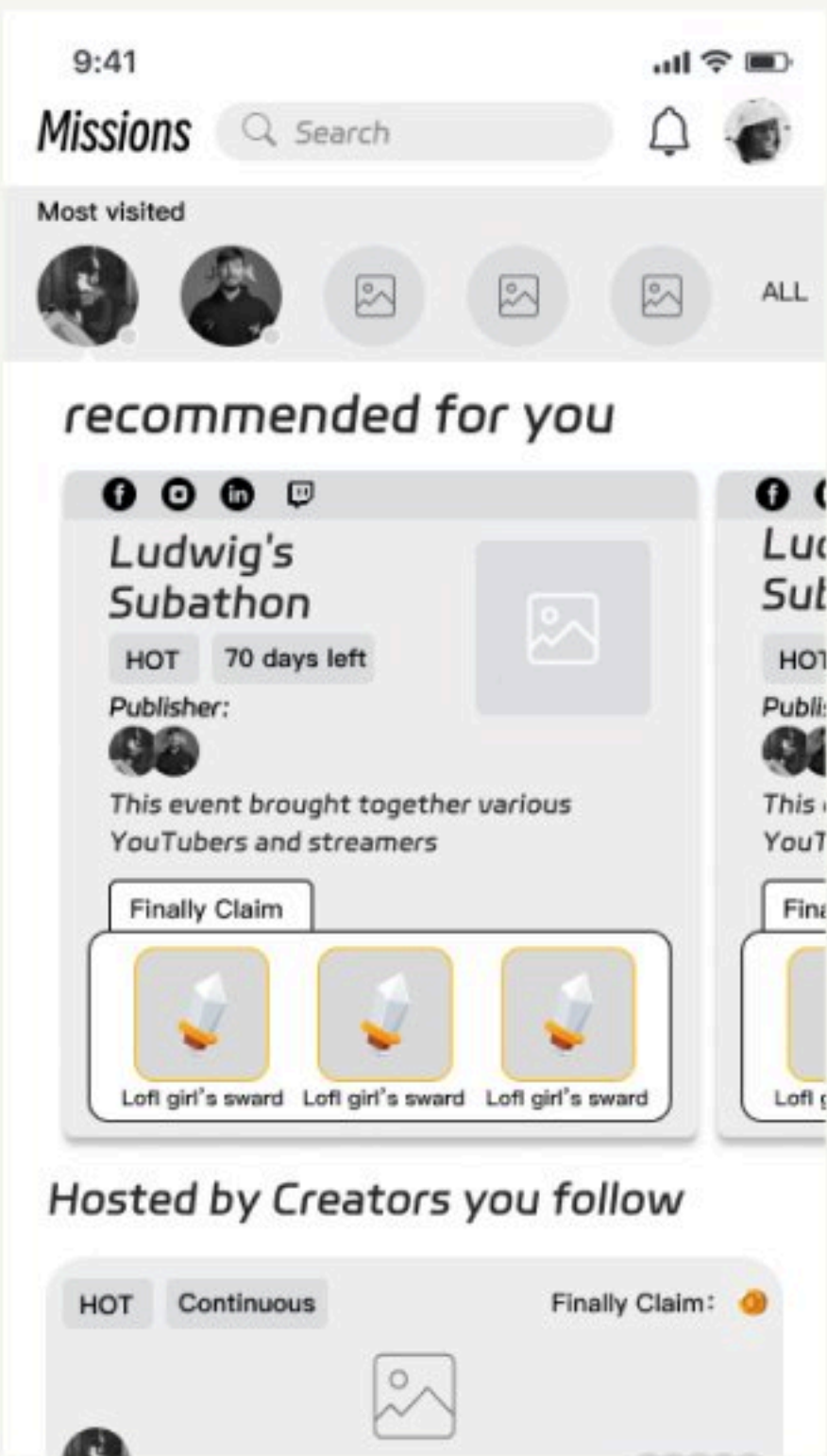
Desktop Studio + mobile companion app

SCOPE

I redesigned the App interaction model. The completed App visual UI is team work.



COMPLETED TEAM UI



MY UX PROTOTYPE

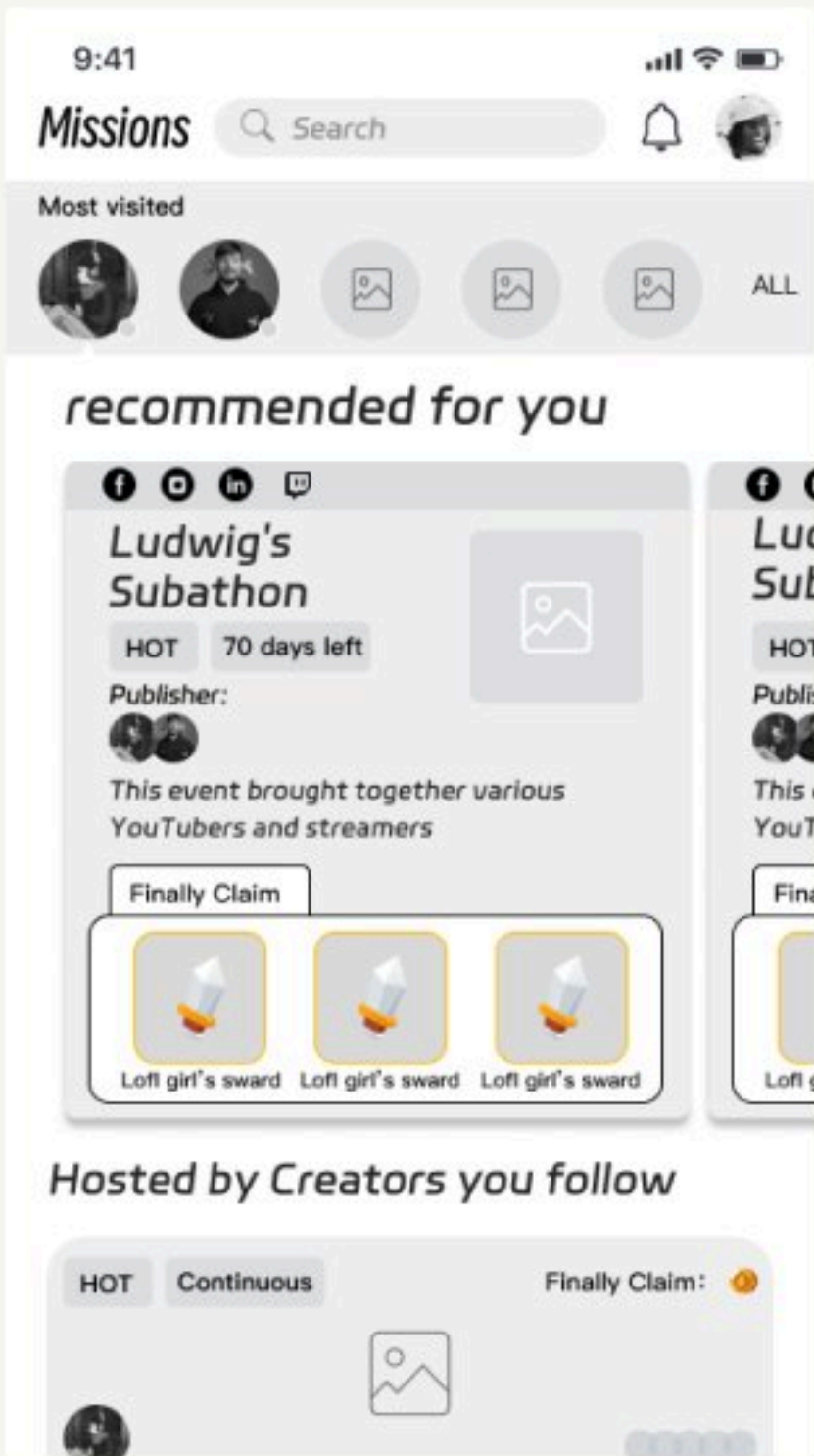
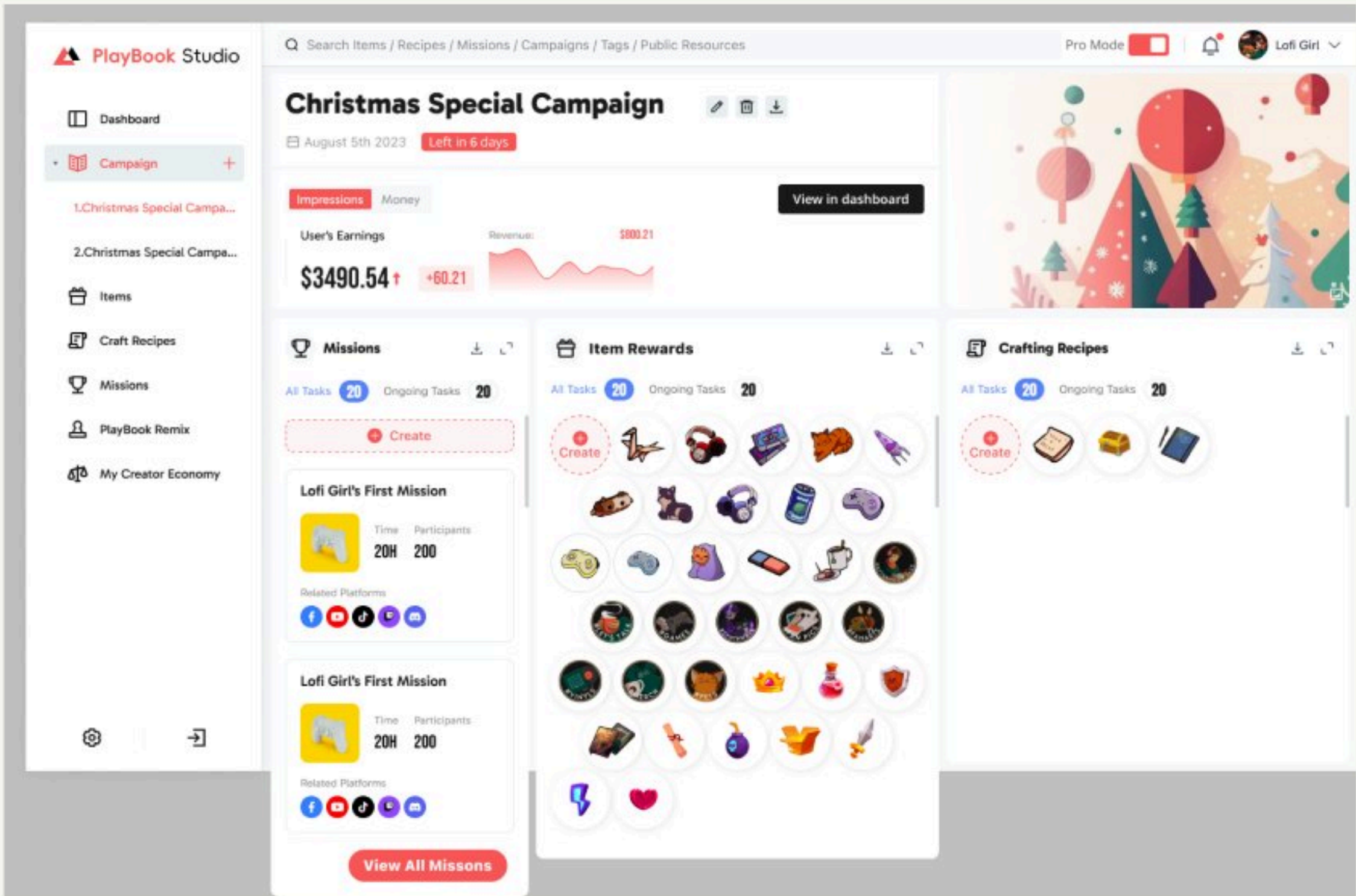
A companion to creator channels

PlayBook explored turning participation on platforms such as YouTube and Twitch into verifiable, ownable rewards.

PRODUCT MODEL / ONE CONNECTED LOOP

Connect the creator's setup to the fan's next step.

A configurable rule becomes valuable when the person using it can predict its requirements and result.



Configure

Campaign → tasks → items → rules

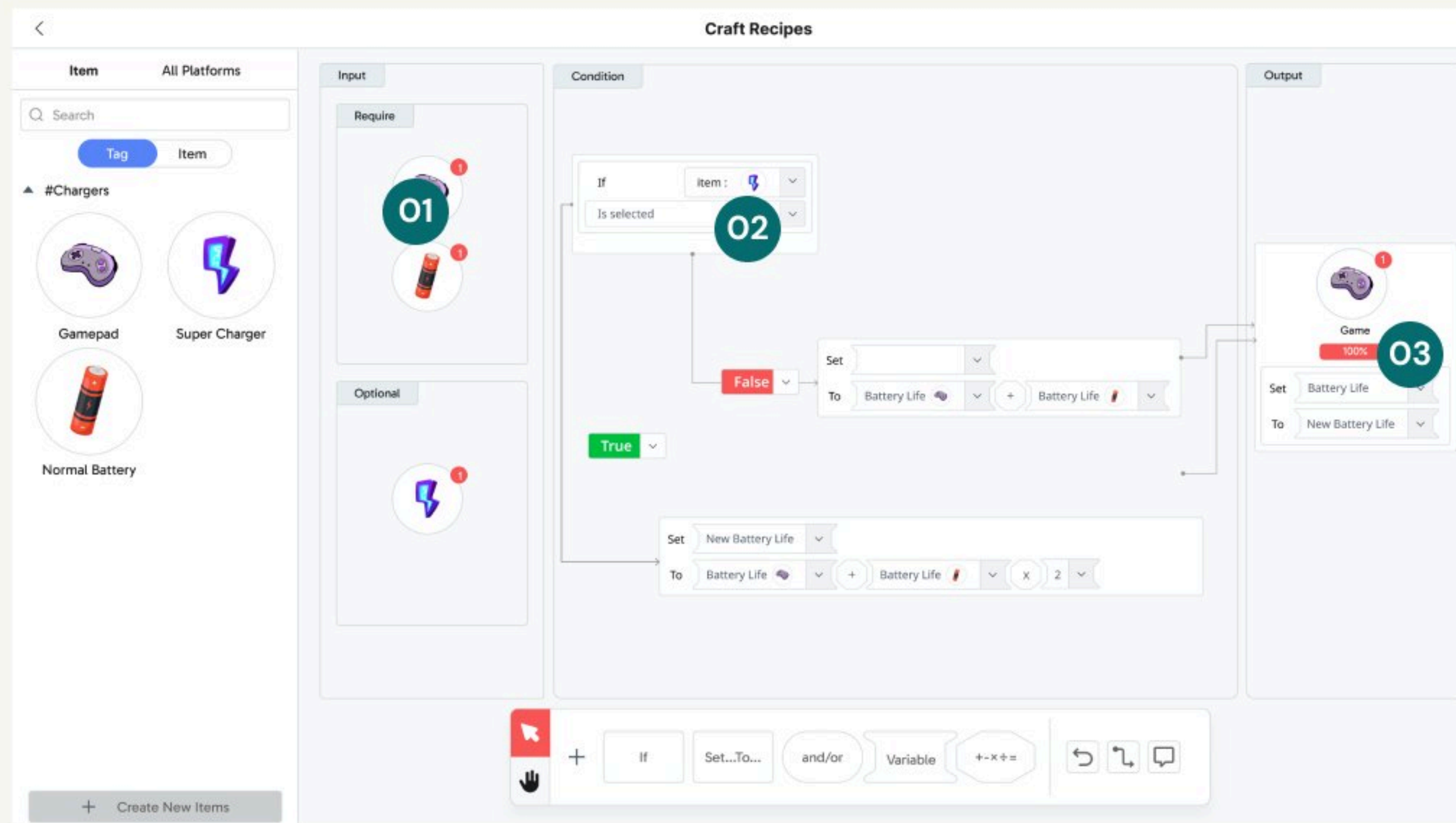
Participate

Choose a task, collect an item, then craft or display it.

STUDIO / DESIGN DECISION 01

Make the rule visible while it is being edited.

I exposed the relationship between inputs, conditions and outputs in the authoring canvas.



01 Inputs

Separate required items from optional ones.

02 Conditions

Expose the branch and the variable it tests.

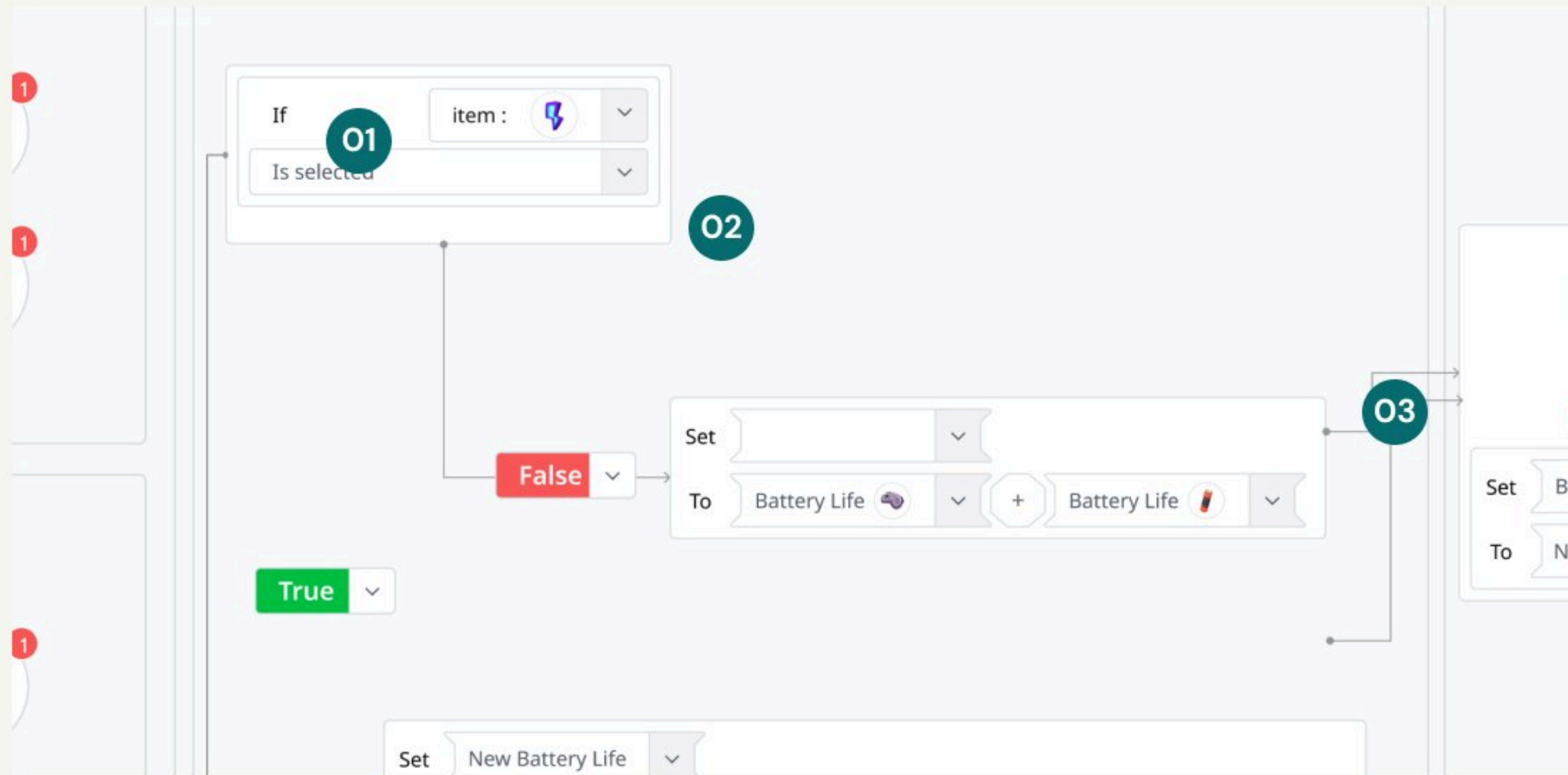
03 Outputs

Show the resulting item and its changed attributes.

STUDIO / FOLLOW ONE BRANCH

An optional input changes the resulting item.

The example requires a gamepad and a battery. Selecting the optional supercharger changes the battery-life calculation.



01 Declare the option

The creator can see which input is conditional.

02 Follow the branch

The condition determines whether a multiplier is applied.

03 Inspect the result

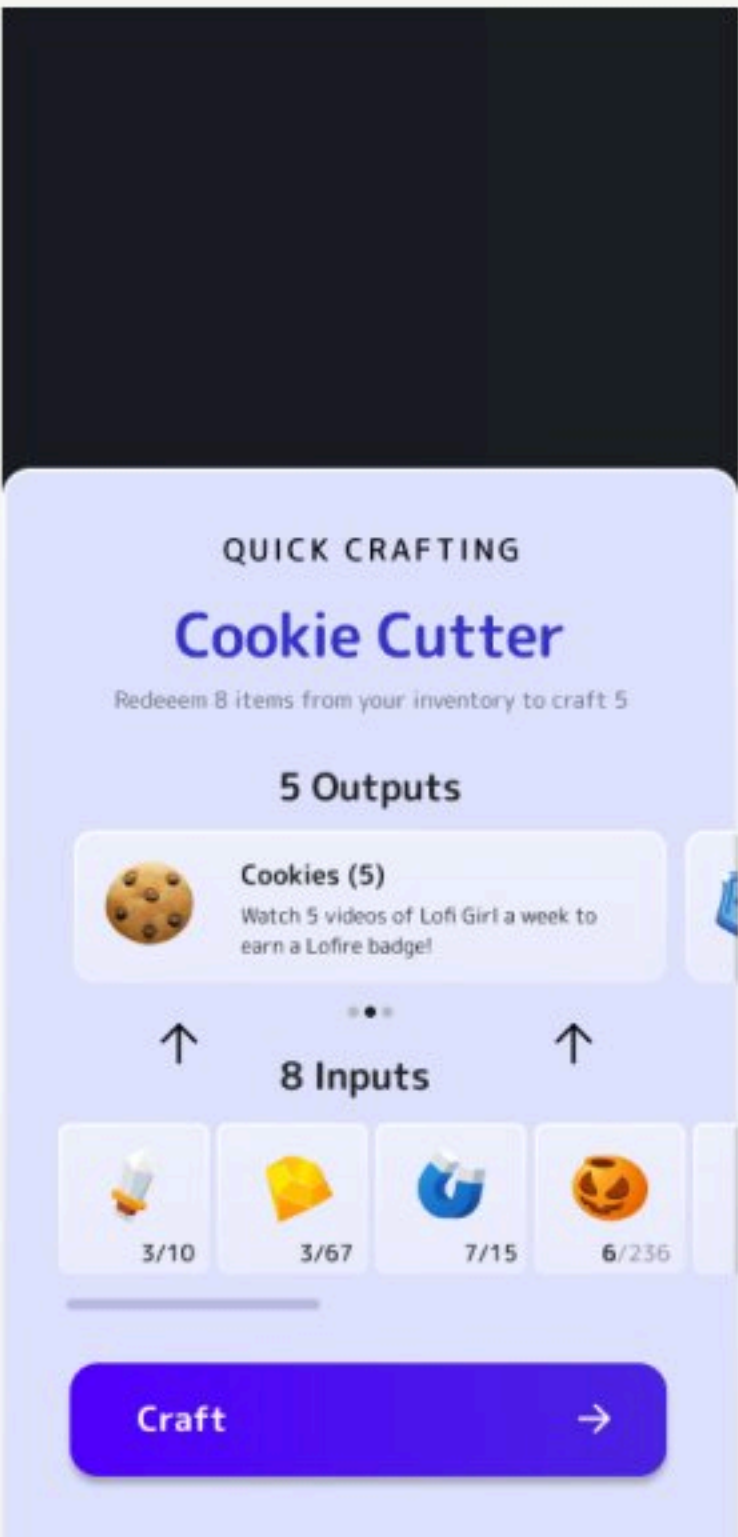
The output keeps the changed attribute explicit.

Design trade-off: visible logic supports precise editing, while the growing canvas increases the need for guidance.

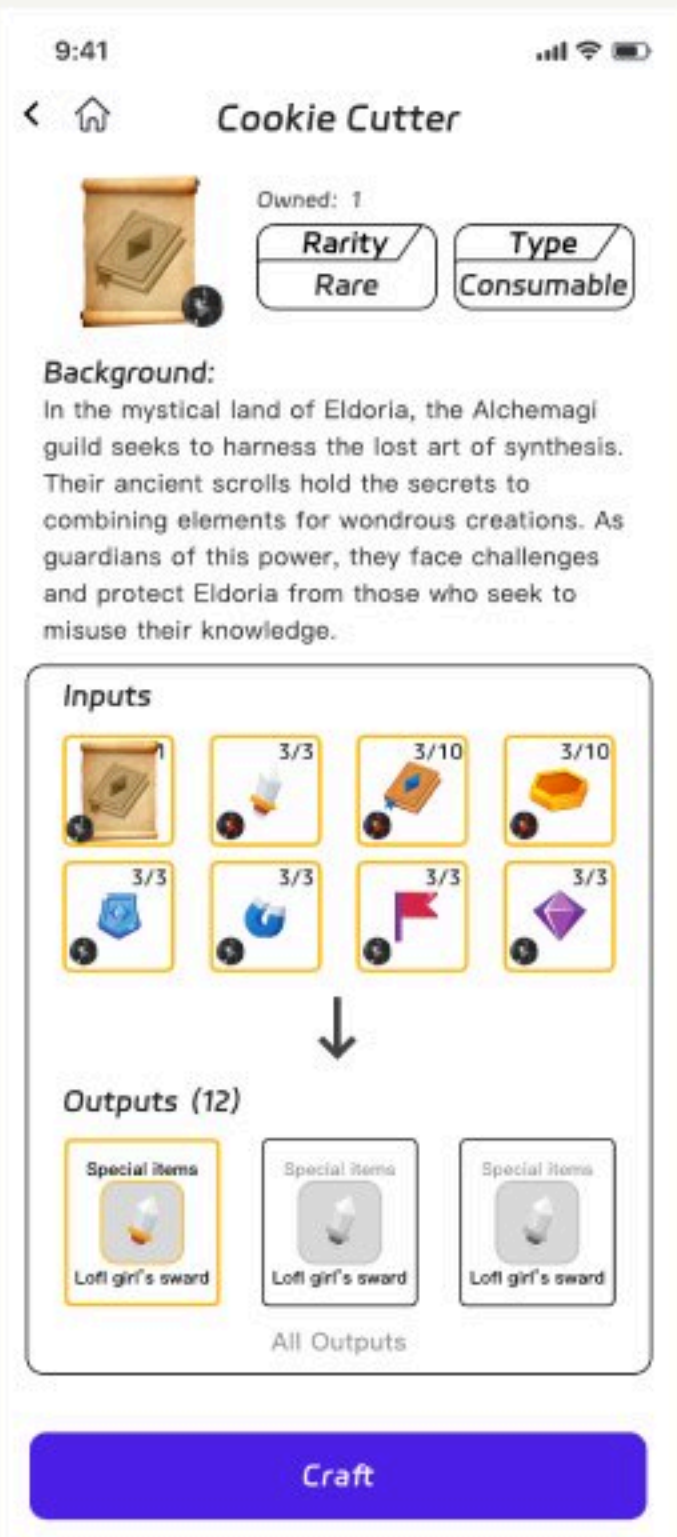
COLLABORATION / VERSION LINEAGE

I developed the interaction between the screens.

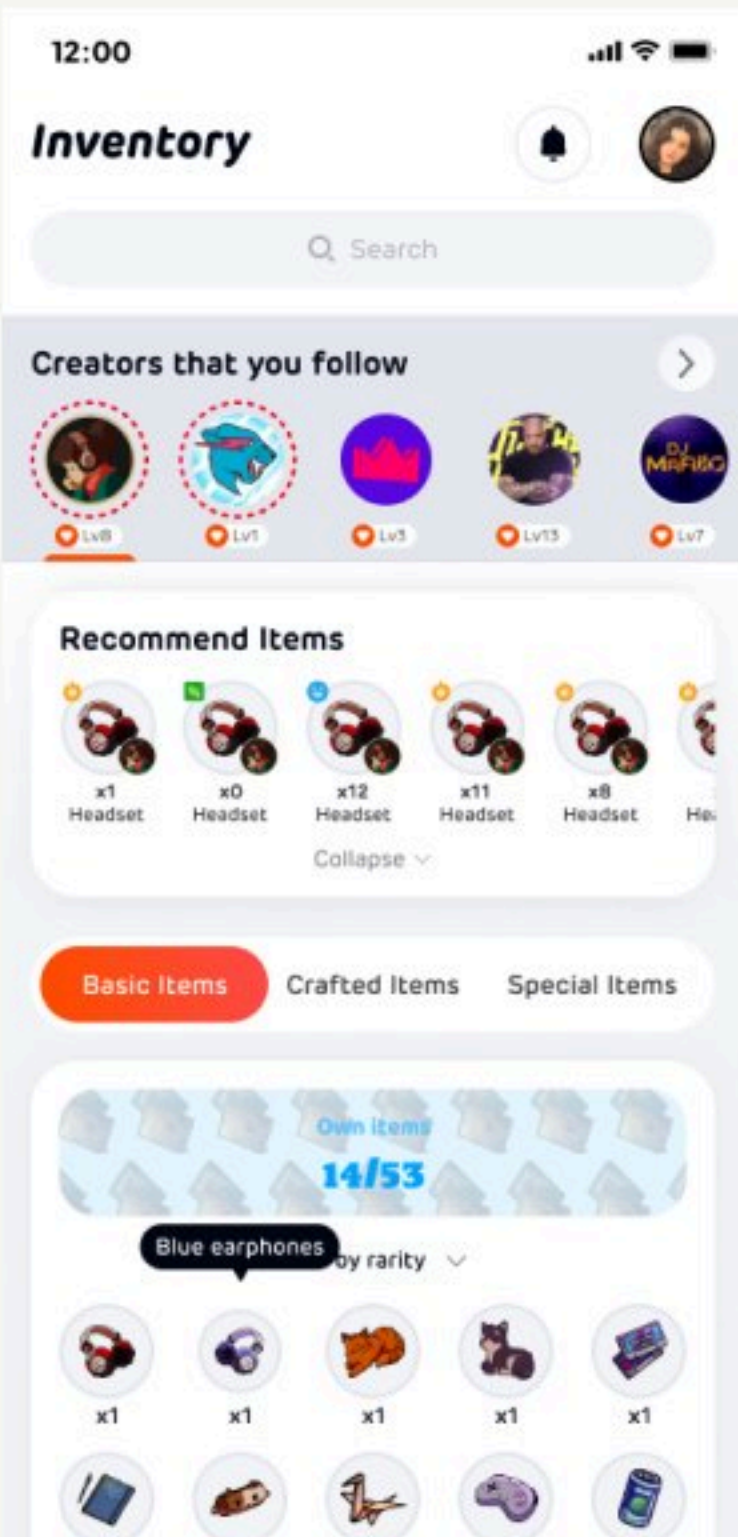
The early UI established a visual direction. My wireframes expanded the tasks, object states and decision points.



EARLY UI / OTHER DESIGNER



REVISED UX / MY WORK



COMPLETED UI / TEAM

What I made explicit

Entry points, ownership, material requirements, confirmation and reward feedback.

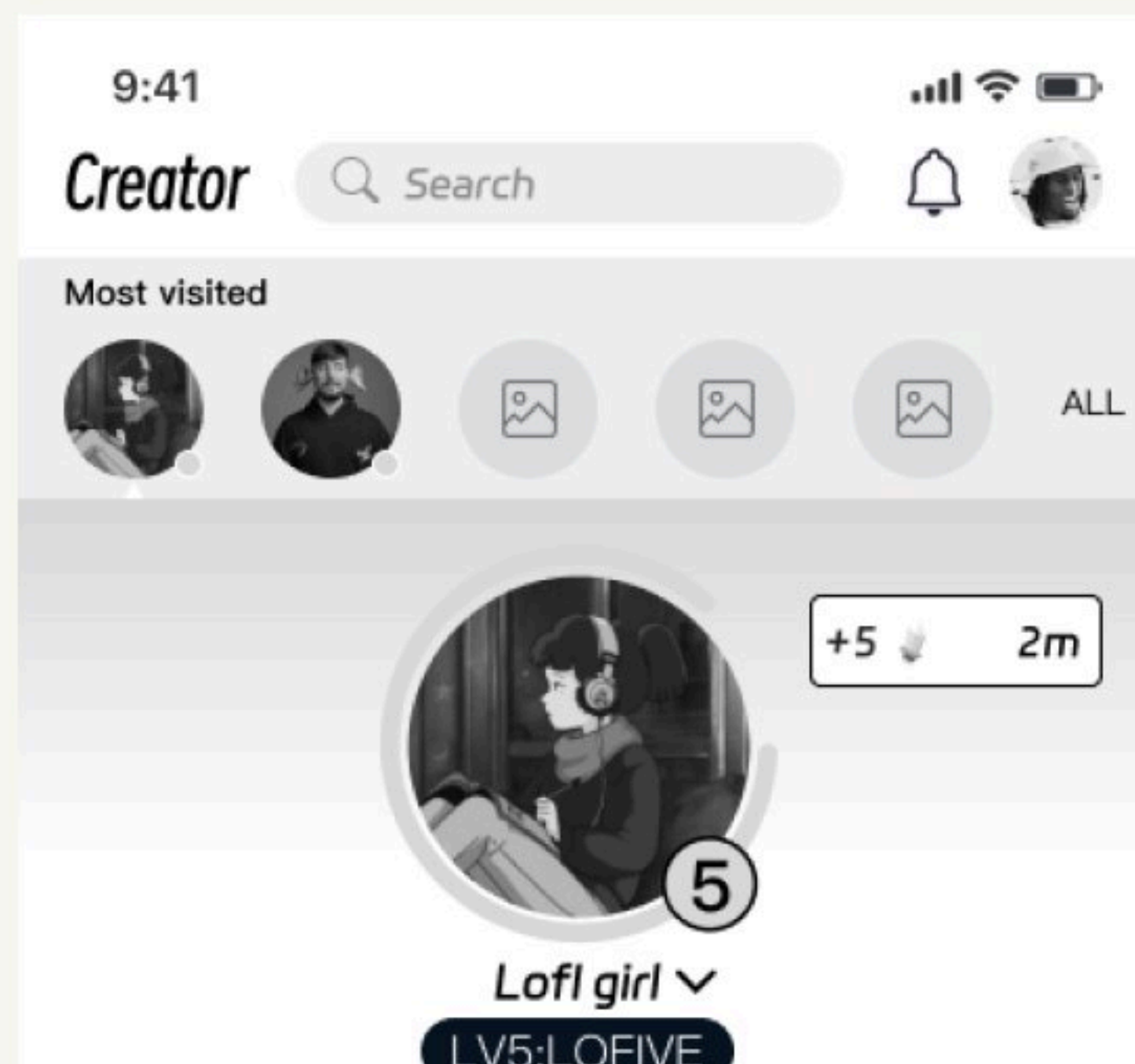
How we worked

I used prototypes and review conversations to resolve behaviour before visual refinement.

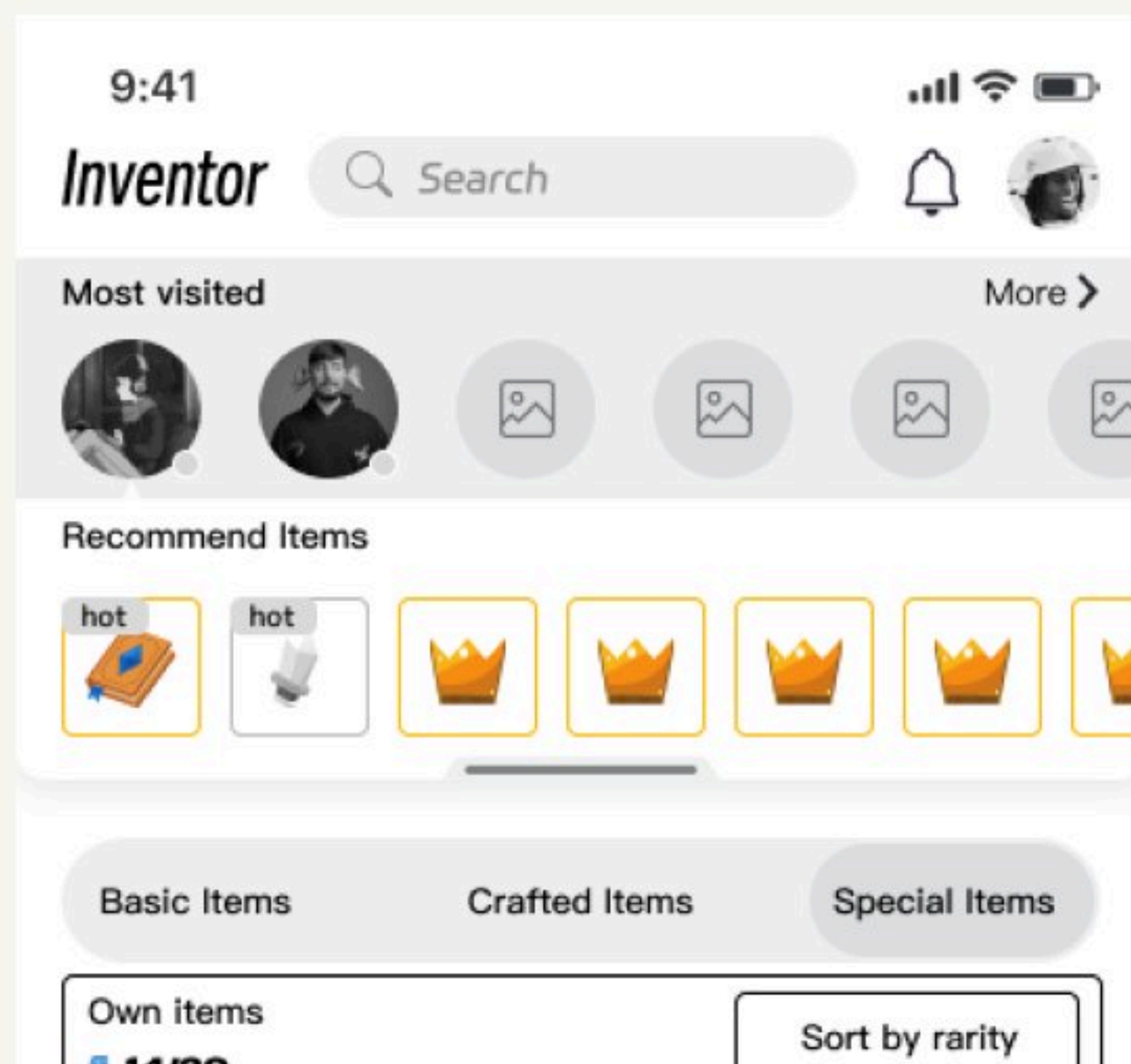
APP / DESIGN DECISION 02

Keep creator context consistent across tasks.

Home, inventory and missions need a coherent answer to the same question: whose community am I in?



HOME / CONTEXT + PROGRESS



INVENTORY / RELATED ITEMS

Shared context

A creator selection should carry through related tasks, items and progress.

Room for collaboration

Shared items and discovery across creators still need a route beyond this context.

APP / OWNERSHIP + READINESS

An item's state determines the useful action.

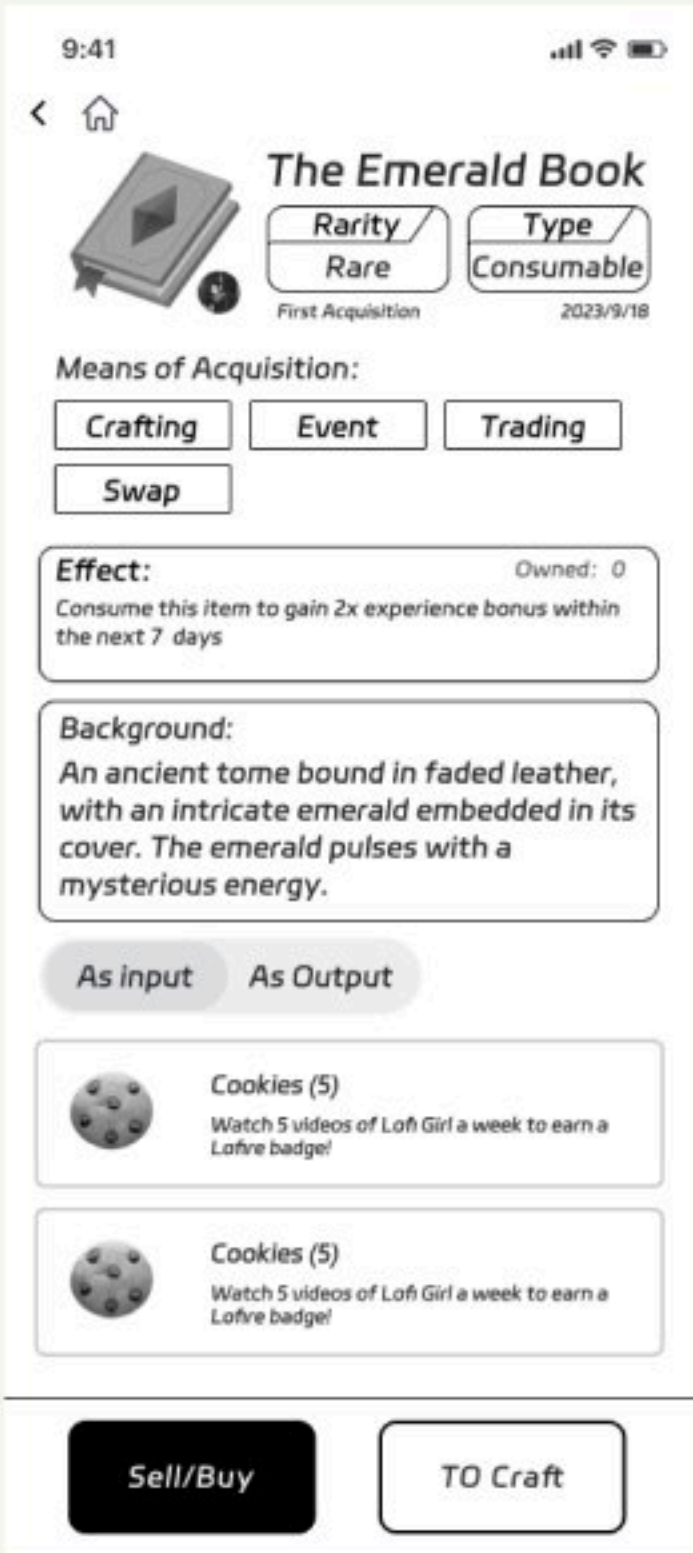
I separated access to an item from readiness to use it, so each screen could explain a relevant next step.

Ownership answers access.

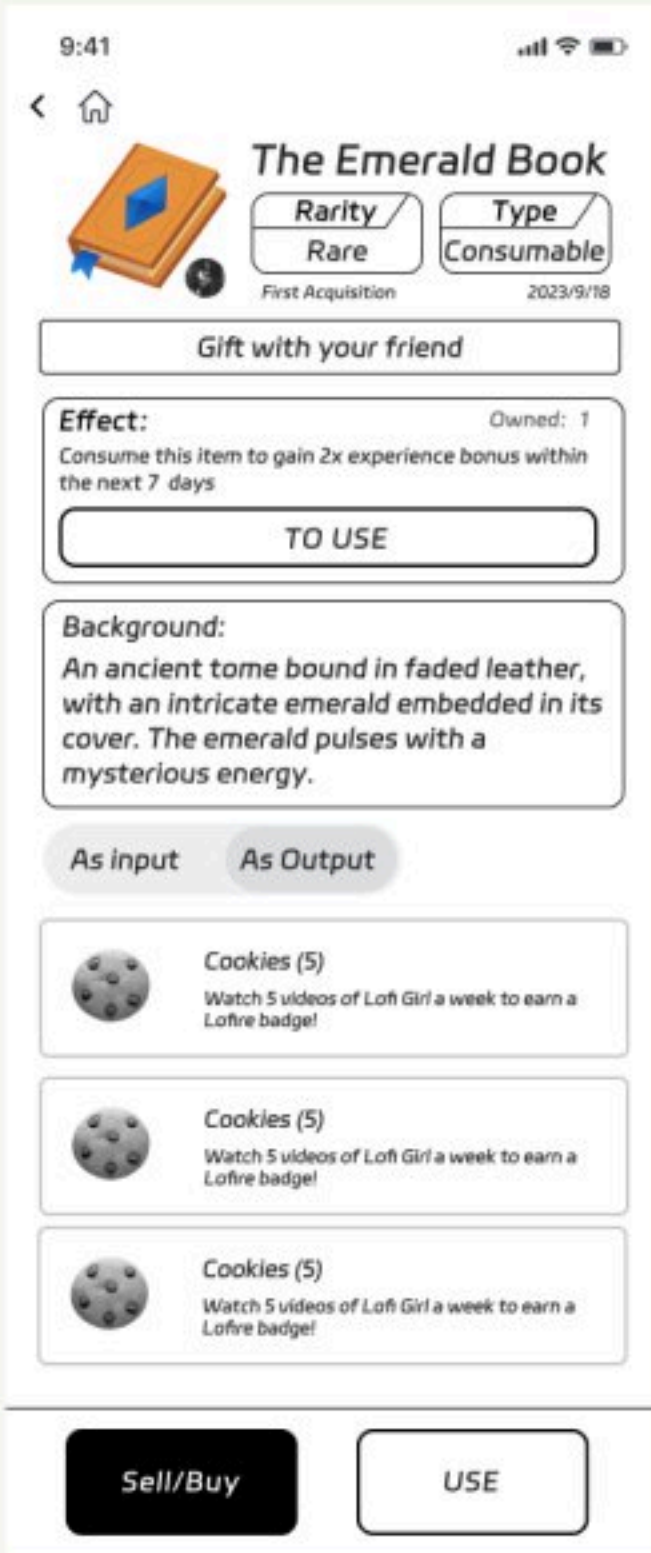
An unowned item needs an acquisition route. An owned item can expose relevant actions.

Requirements answer readiness.

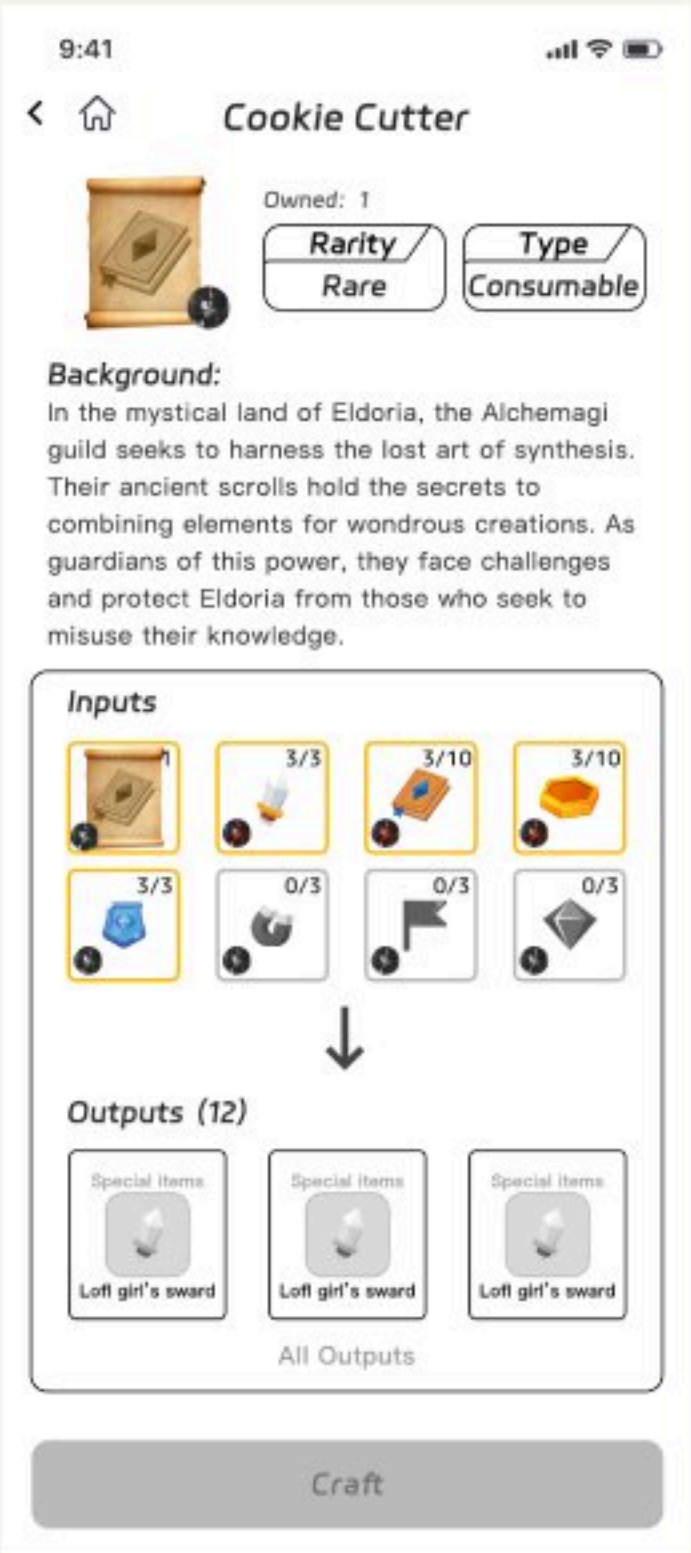
Showing missing materials helps explain why crafting is unavailable before a commitment is attempted.



NOT OWNED / HOW TO GET IT



OWNED / WHAT TO DO NEXT



MISSING MATERIALS / WHY

APP / DESIGN DECISION 03

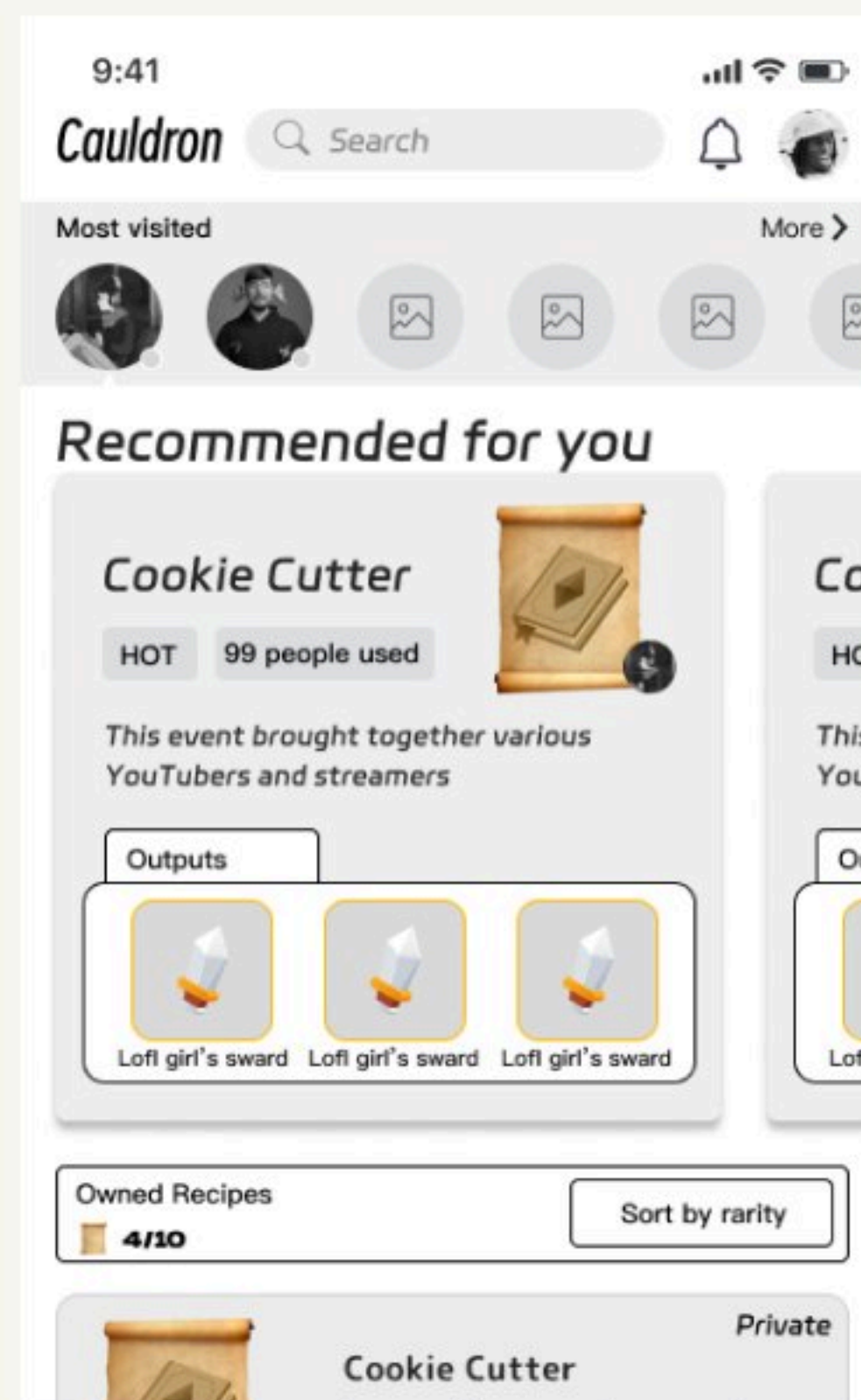
Replace the game-like furnace with a clear route.

Product reviews clarified that PlayBook was a companion experience. Crafting needed a direct, understandable path.

EARLY INTERACTION IDEA

Drag items into a furnace

Manipulation and discovery make the action feel like a game mechanic.



Review reconstruction of the early concept

Browse recipes

Start from a visible list of possible results.

Inspect requirements

Understand the needed materials before acting.

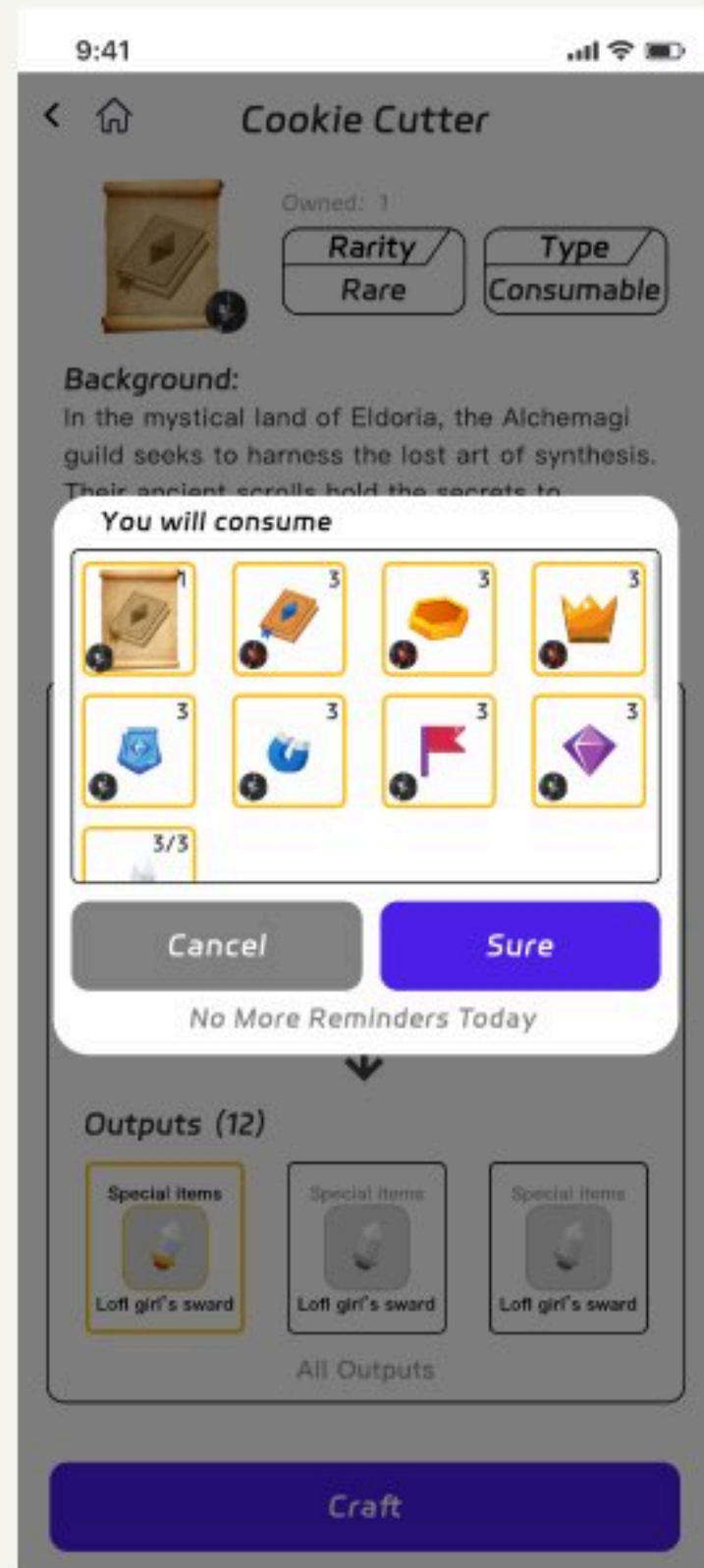
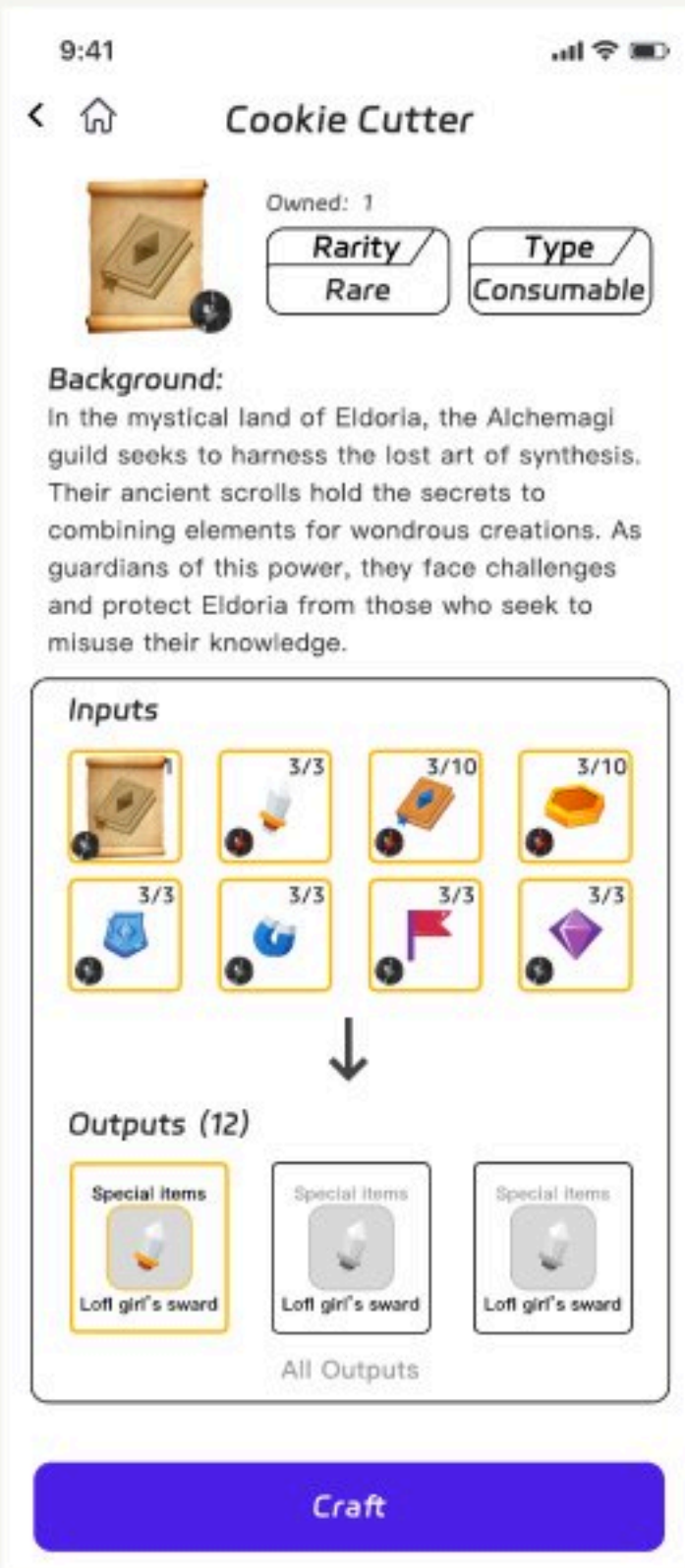
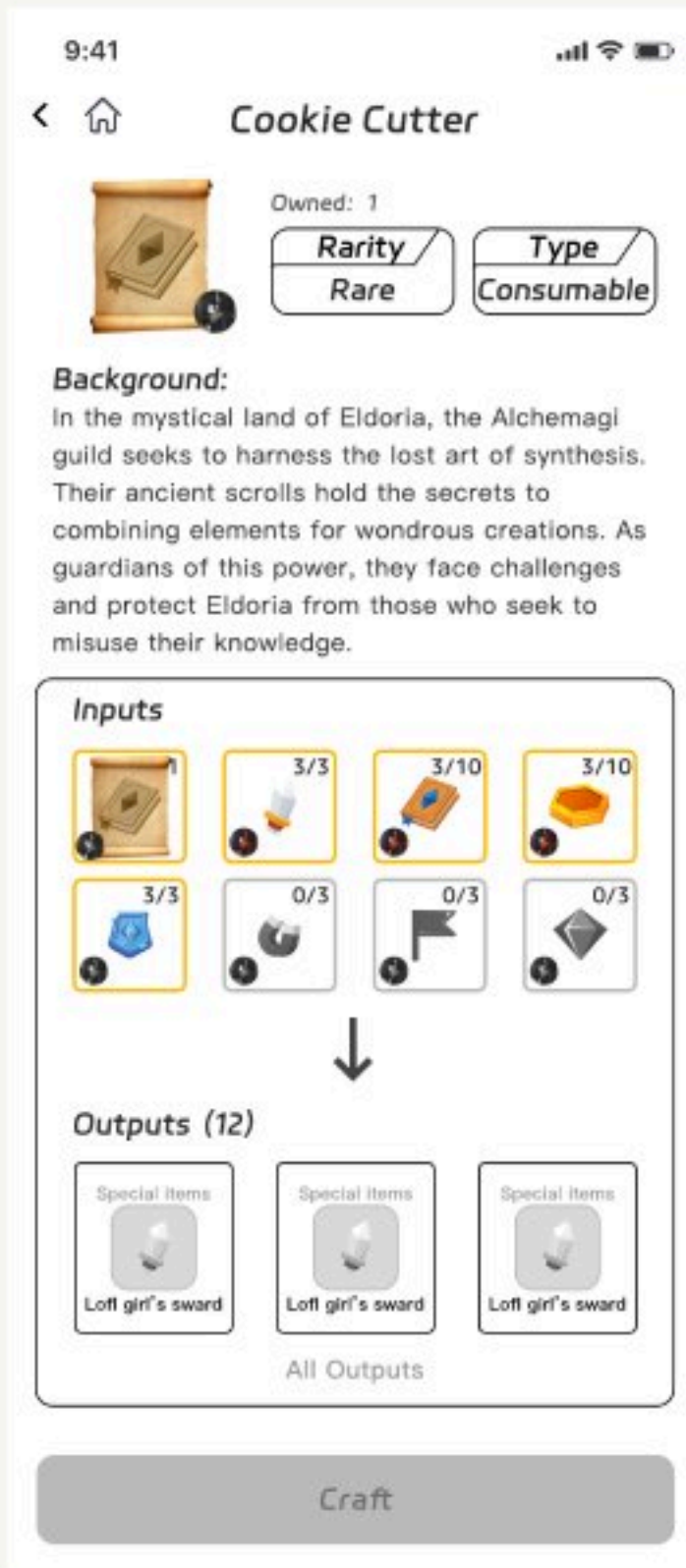
Review, then confirm

Keep the consequence legible at the point of commitment.

APP / CRAFTING FLOW

Make the cost clear before the commitment.

Three distinct states support the same decision: what will I consume, and what will I receive?



A transferable principle

Make costs and consequences visible before confirmation—also essential in payment journeys.

01 / MATERIALS MISSING

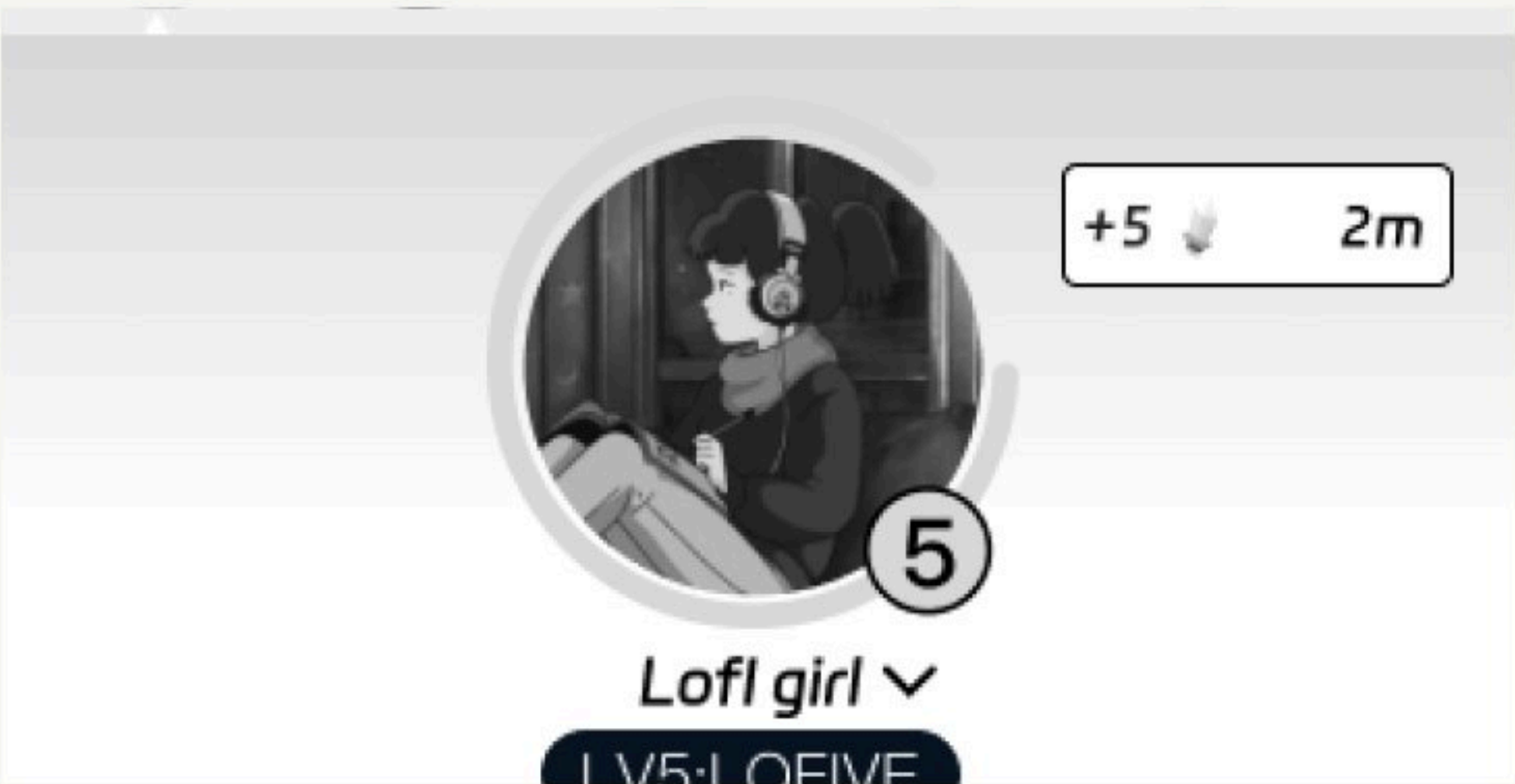
02 / READY TO CRAFT

03 / REVIEW + CONFIRM

APP / FEEDBACK DECISION

Match the feedback to the size of the moment.

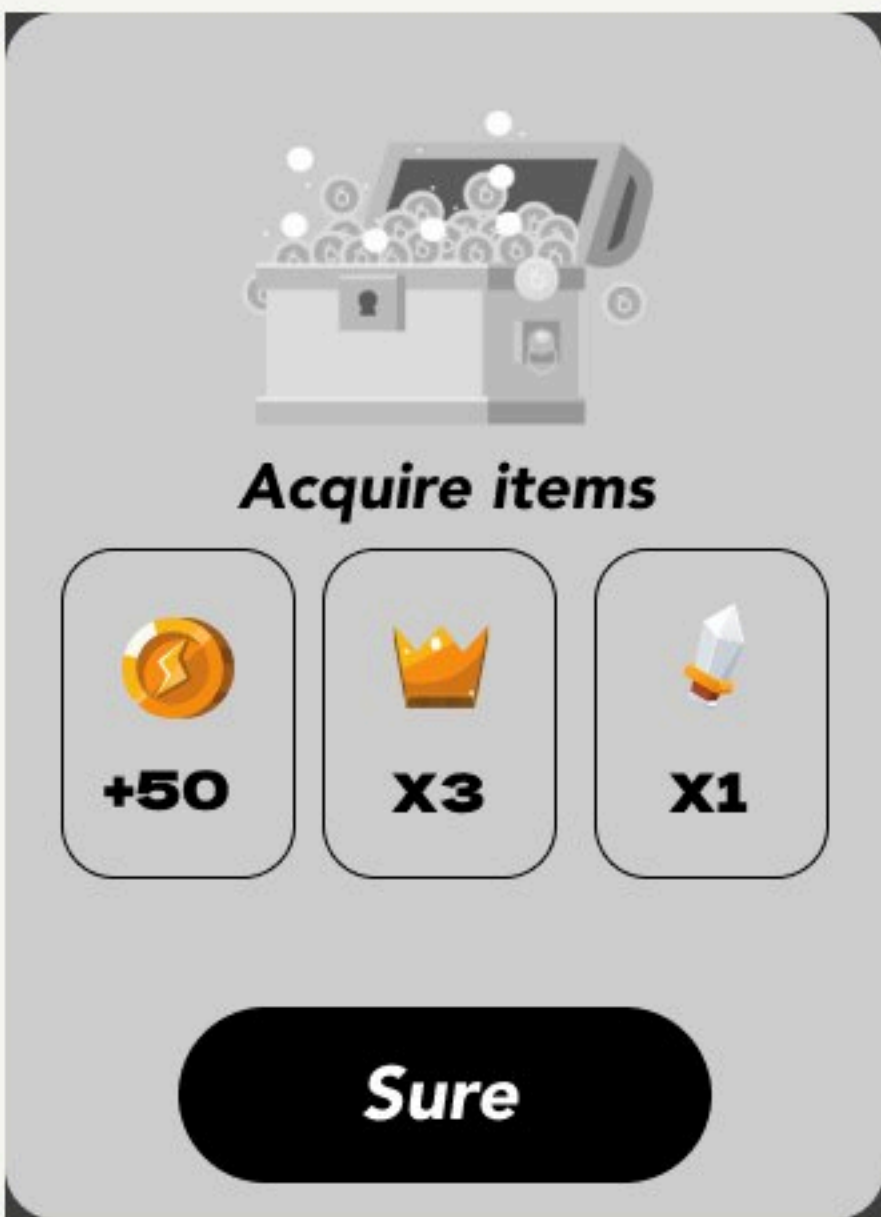
Routine progress and a significant reward carry different information. Their interruption cost should differ too.



LIGHT / PROGRESS IN CONTEXT

Keep small progress close to the task.

Compact reward cues communicate an incremental gain without demanding a separate interaction.



DELIBERATE / CLAIM A REWARD

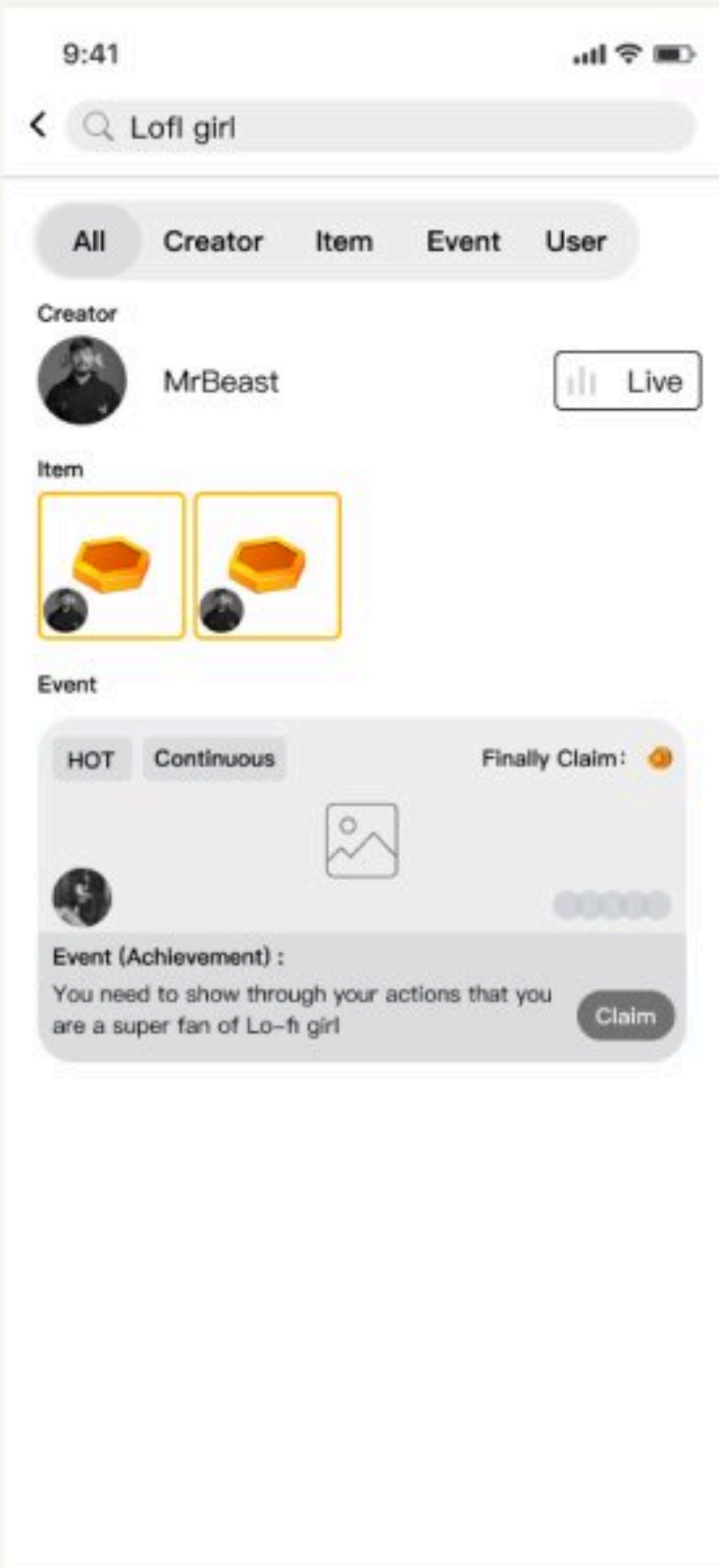
Make a meaningful claim tangible.

The dialog lists the acquired items after a deliberate claim.

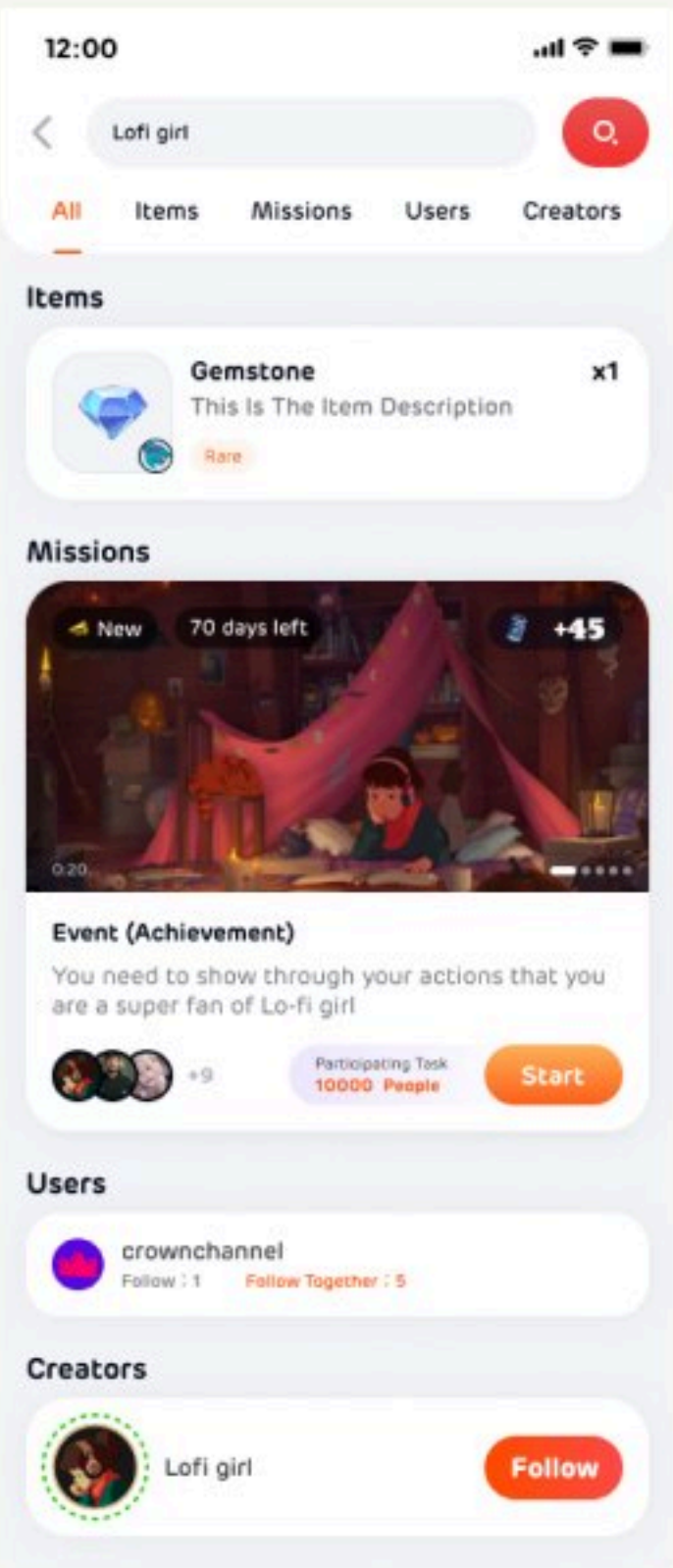
COLLABORATION / A REAL CHANGE OF MIND

Broaden search when the product strategy changes.

I initially favoured discovery inside a creator's context. The product lead made cross-creator collaboration a strategic priority.



MY UX / GLOBAL RESULTS + FILTERS



TEAM / COMPLETED UI

Initial reasoning

Local search would reinforce the creator context used elsewhere in the app.

What changed my mind

A strict boundary would obstruct collaborations and discovery across communities.

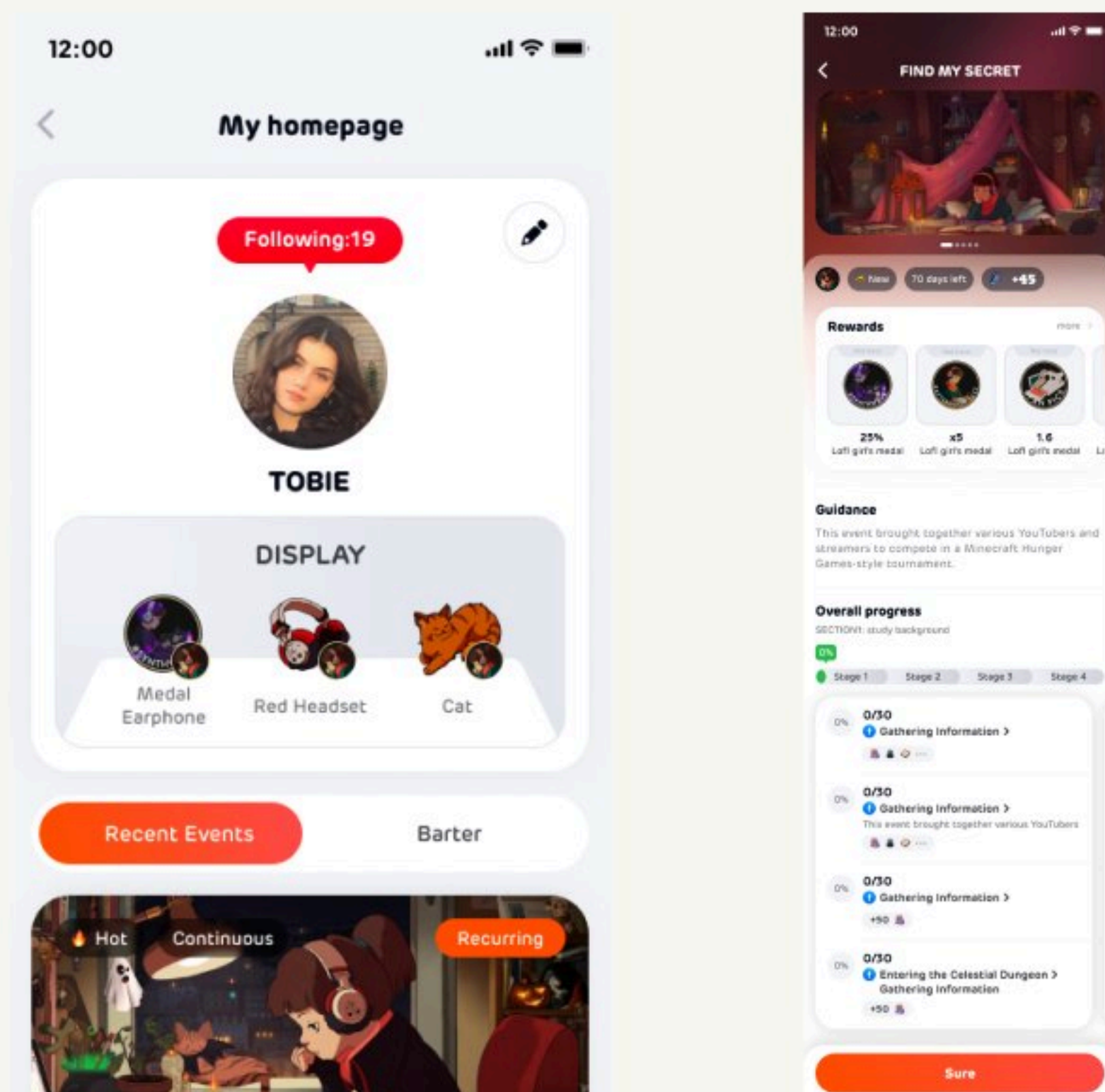
Revised decision

Use a dedicated global search with clear content categories, while preserving creator context in everyday tasks.

PLAYBOOK / OUTCOME

Prototypes gave the team a shared product language.

The work linked Studio rules, App tasks and object states so the team could discuss the behaviour of one product.



Design delivery

Studio UX/UI, App flow and state design, plus interaction demonstrations used in product and investor conversations.

Company progress

The founder reported a collaboration with NIJISANJI. Partnership discussions and investment were led by the founding team.

Limits & next steps

My evidence centres on design and prototype delivery. The next validation should check whether creators can explain their rules and fans can predict a craft's cost and result.

SMT / SECURITIES SOFTWARE

Make a securities interface reusable.

SMT is a Chinese desktop securities interface for working with accounts, positions and trading actions.

ROLE & SCOPE

ROLE

Component design, guidelines and library maintenance.

TEAM

Wuhan Youpin Chuding Technology Co., Ltd.; design team.

TIMELINE

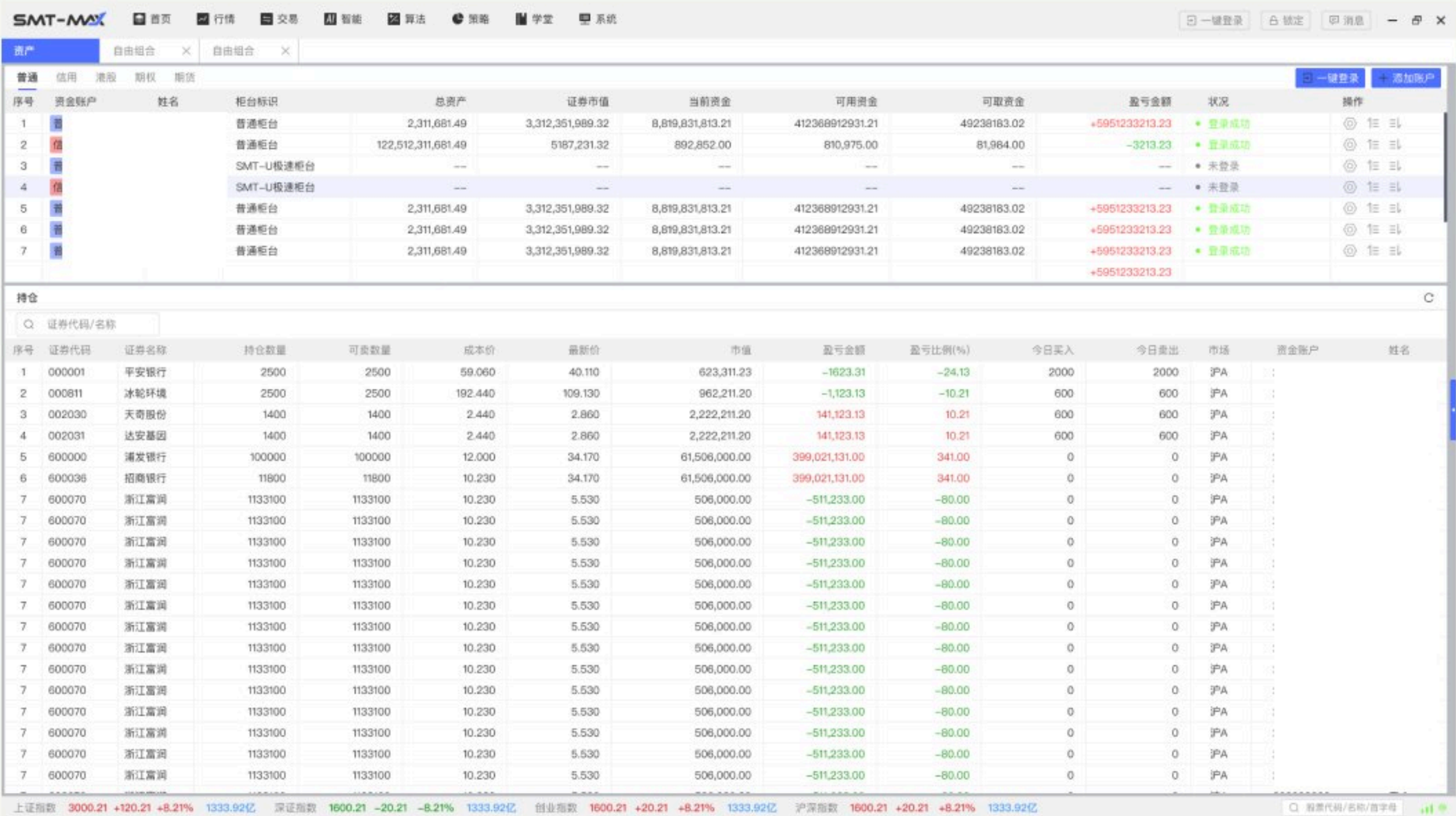
2022–2023

PLATFORM

Desktop securities software

SCOPE

Shared investigation of business-unit boundaries; individual component design and upkeep.



ACCOUNT CONTEXT / POSITIONS / TRADING CONTROLS

SMT / FINANCIAL CONTEXT

A dense table still needs a clear reading order.

Account context, position values and actions share one working surface. English annotations reveal its information hierarchy.

序号	证券代码	证券名称	持仓数量	可卖数量	成本价	最新价	市值	盈亏金额	盈亏比例(%)
1	000001	平安银行	2500	2500	59.060	40.110	623,311.23	-1623.31	-24.13
2	000811	冰轮环境	2500	2500	192.440	109.130	962,211.20	-1,123.13	-10.21
3	002030	天奇股份	1400	1400	2.440	2.860	2,222,211.20	141,123.13	10.21
4	002031	达安基因	1400	1400	2.440	2.860	2,222,211.20	141,123.13	10.21
5	600000	浦发银行	100000	100000	12.000	34.170	61,506,000.00	399,021,131.00	341.00
6	600036	招商银行	11800	11800	10.230	34.170	61,506,000.00	399,021,131.00	341.00

SECURITY + POSITION

COST + CURRENT VALUE

PROFIT / LOSS

Read the task in layers.

Identify the security, compare the position with its current value, then choose an action in the same context.

Colour has a cultural context.

This A-share interface uses red for gains and green for losses. For an international audience, I would pair colour with signs and explicit profit/loss labels.

SMT / COMPONENT DECOMPOSITION

Use business meaning to guide component boundaries.

I worked with colleagues to identify reusable units while keeping task-specific rules and relationships explicit.

持仓数量	可卖数量	成本价	最新价	市值	盈亏金额	盈亏比例(%)	今日买入	今日卖出	市
2500	2500	59.060	40.110	623,311.23	-1623.31	-24.13	2000	2000	沪
2500	2500	192.440	109.130	962,211.20	-1,123.13	-10.21	600	600	沪
1400	1400	2.440	2.860	2,222,211.20	141,123.13	10.21	600	600	沪
1400	1400	2.440	2.860	2,222,211.20	141,123.13	10.21	600	600	沪
100000	100000	12.000	34.170	61,506,000.00	399,021,131.00	341.00	0	0	沪
11800	11800	10.230	34.170	61,506,000.00	399,021,131.00	341.00	0	0	沪
1133100	1133100	10.230	5.530	506,000.00	-511,233.00	-80.00	0	0	沪
1133100	1133100	10.230	5.530	506,000.00	-511,233.00	-80.00	0	0	沪

01 / POSITIONS MODULE

1	000001	平安银行	2500	2500	59.060
---	--------	------	------	------	--------

02 / REUSABLE ROW



Business module

Account positions form a meaningful task area.

Reusable structure

The row preserves column order as interaction states change.

Action boundary

Buy and sell remain distinct controls because their business consequences differ.

SMT / ACCOUNT-POSITION ROW

Four states preserve the same reading structure.

Default, selected, hover and empty variants communicate a different situation without rearranging the underlying row.

DEFAULT / READ

1	000001	平安银行	2500	2500	59.060
---	--------	------	------	------	--------

SELECTED / KEEP CONTEXT

1	000001	平安银行	2500	2500	59.060
---	--------	------	------	------	--------

HOVER / LOCATE

1	000001	平安银行	2500	2500	59.060
---	--------	------	------	------	--------

EMPTY / RESERVE SPACE

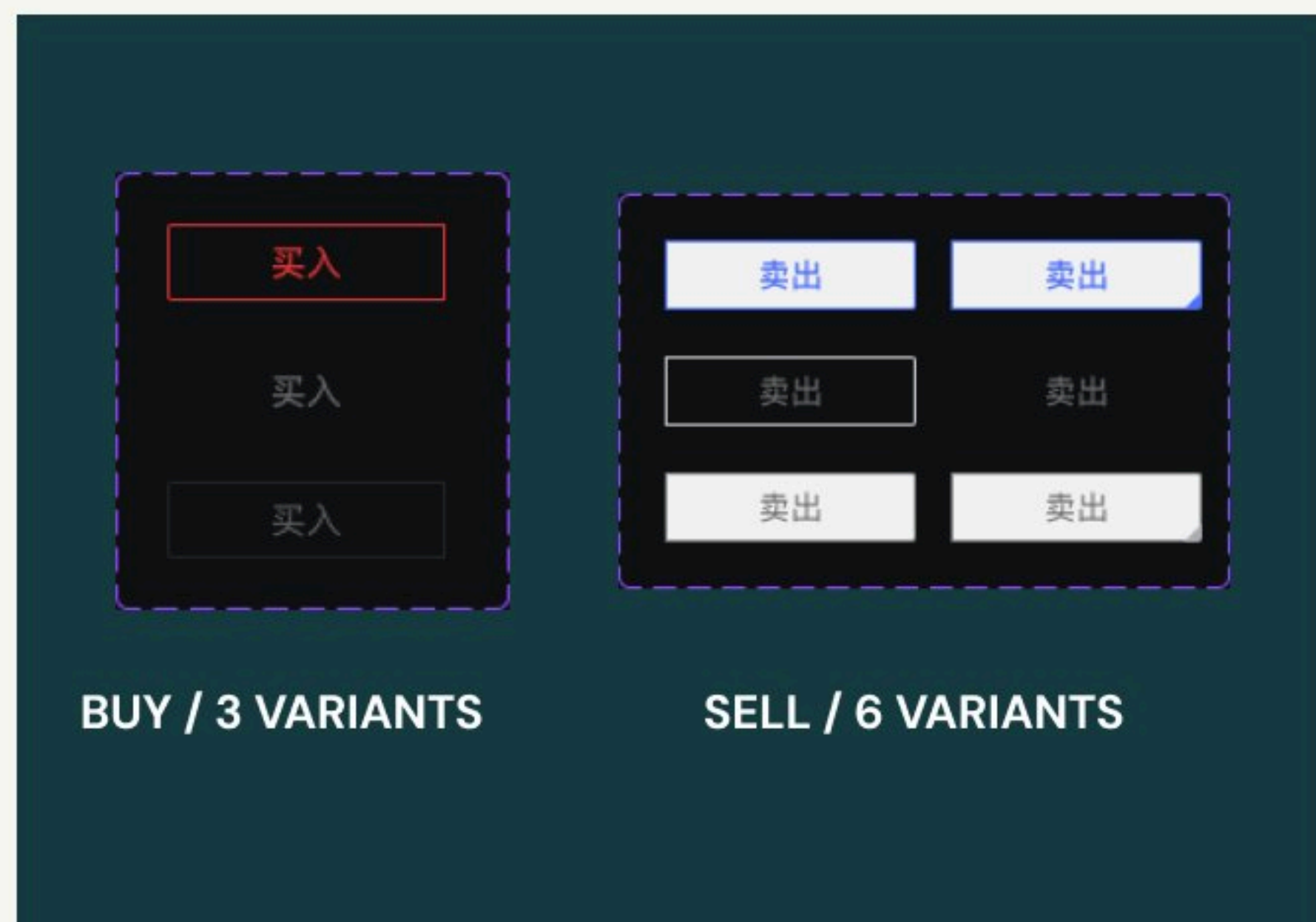
Empty source variant retains the row's space.					
---	--	--	--	--	--

Source set: 表格/账户持仓 · Four documented variants in this component family.

SMT / CONTROL VARIANTS

Share the structure while preserving action meaning.

The source library separates interaction state from the business action. A count is useful when its scope is explicit.



3 buy states

Selected, focused and unselected.

6 sell variants

The same three states, with and without the badge.

4 account-position states

Default, selected, hover and empty.

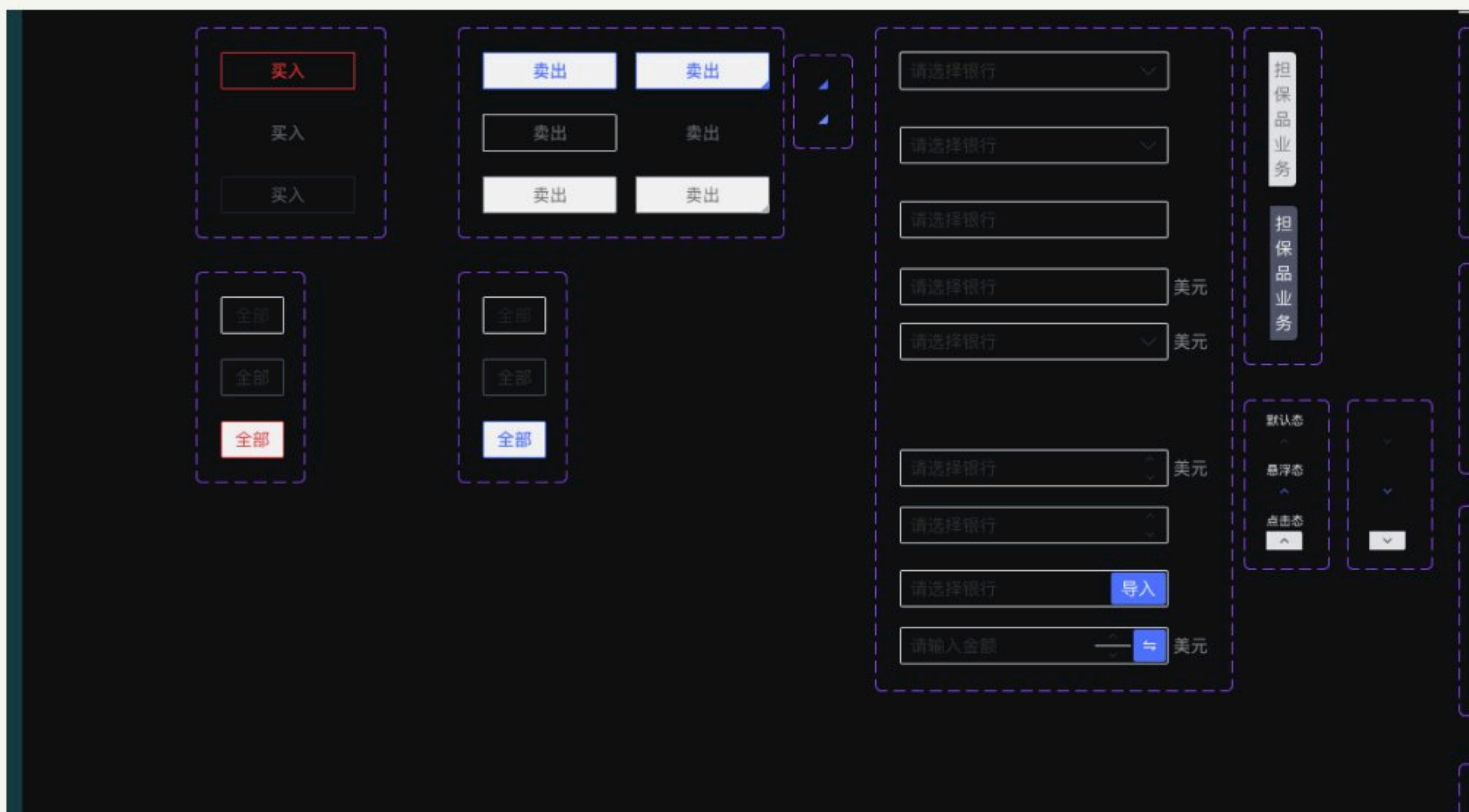
13 variants in these three families

This is a count of the selected source examples, making the component structure concrete.

SMT / OUTCOME

A maintained library turns repeated work into a system.

The deliverable was a Figma foundation of components and usage rules that could be maintained as related interfaces changed.



What I contributed

Component design, specifications and maintenance, informed by shared research into business units and Figma methods.

What the work taught me

A reusable component should preserve the meaning of a financial task as well as its appearance.

Limits & next steps

This case documents design-library work. I would measure state omissions, assembly effort and the maintenance cost of a shared change.

QINGJU / RESEARCH TO CONCEPT

Connect cycling rewards to the reasons people ride.

A bike-share growth brief became a question about what people value before, during and after a leisure ride.

ROLE & SCOPE

ROLE

Research, interviews, user modelling, journeys and low-fidelity flows.

TEAM

Client-commissioned training capstone team; final UI by teammates.

TIMELINE

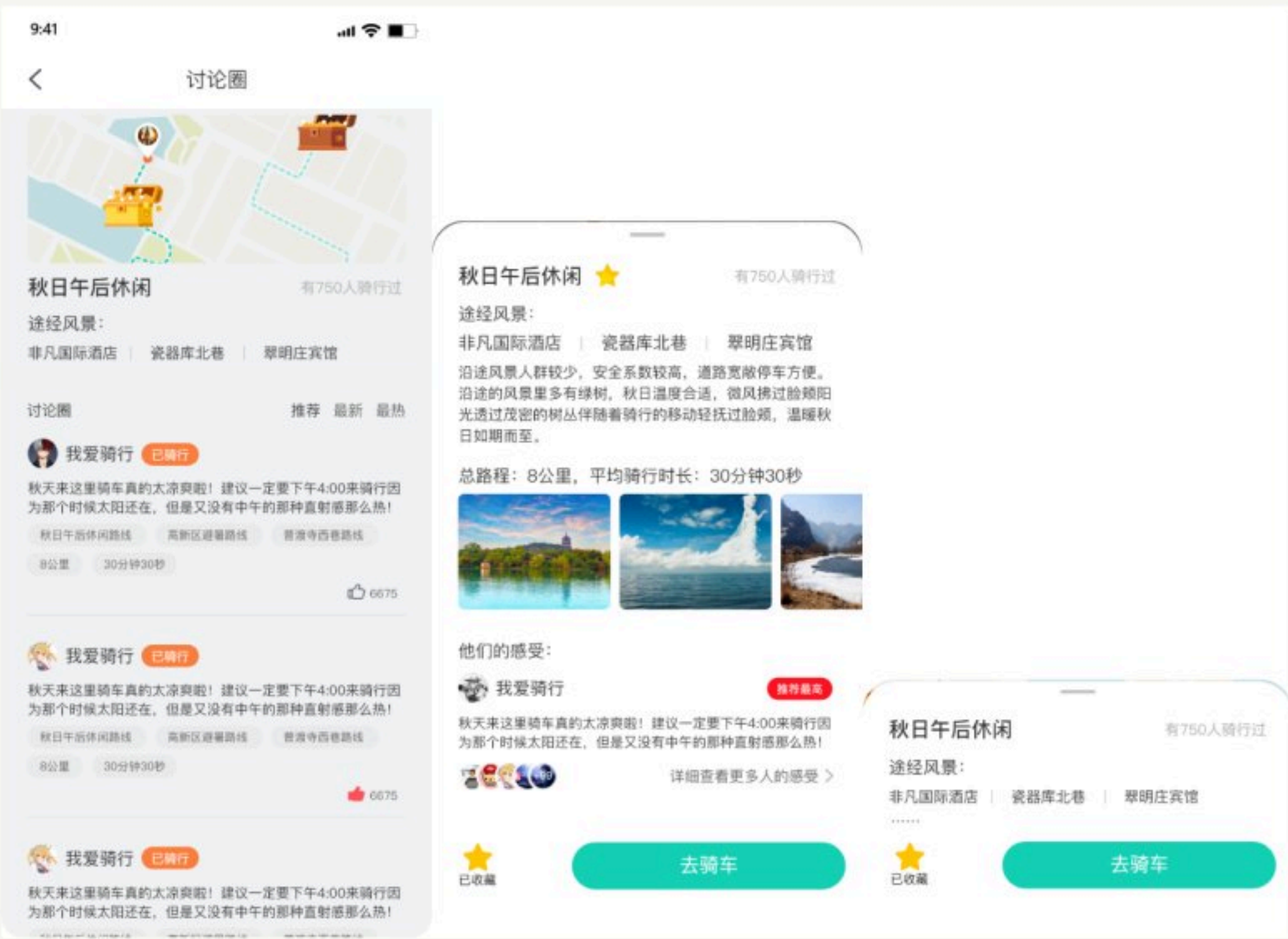
2021

PLATFORM

Qingju bike-share mobile experience

SCOPE

Research-to-concept proposal for the user growth system.



TEAM CONCEPT / ROUTE DISCOVERY

QINGJU / PROBLEM FRAMING

Start with a use occasion, then investigate its needs.

I proposed focusing on leisure riding: commuting needs were relatively fixed, while discretionary rides offered a different design opportunity.

实地考察

青桔单车对于湿地公园等休闲场景的关注度增加
整体上呈现出**投放多**实际**骑行少**的问题。

根本原因是青桔在该场景的**引导性和关联度不够**。用户无法把去公园一定要使用青桔的意识建立起来。



2021/5/9周末 18:00-19:30藏龙岛湿地公园



Business question

How might a growth system give people a reason to engage beyond unlocking a bike?

Research question

What makes a leisure ride worth choosing, remembering or sharing?

Method choice

Combine a questionnaire, interviews and field observation to examine motivations alongside the riding context.

FIELD OBSERVATION / EAST LAKE, WUHAN

The leisure focus was the starting hypothesis. The study explored needs inside that chosen context.

QINGJU / RESEARCH SYNTHESIS

Translate motives into concrete design opportunities.

The project record contains 85 valid questionnaire responses and 11 interviews, alongside contextual observation.



ORIGINAL PROJECT RECORD

85

Valid responses

11

Interviews

EXPLORE + REMEMBER

Route planning takes effort; records become fragmented.

Design implication → Help people find a route and assemble the memory afterwards.

SHARE + CONNECT

A ride needs a story worth sharing with friends.

Design implication → Support meaningful ride content and discussion around a route.

DISCOVER + COLLECT

Finding places and keeping a souvenir can be rewarding.

Design implication → Connect the reward to the place and the experience.

QINGJU / EXPLORE-AND-RECORD JOURNEY

The journey reveals work around the ride itself.

I used a journey model to connect planning, riding and remembering, rather than treating rewards as an isolated feature.

所属阶段	骑车前		骑车中				骑车后	
阶段	规划骑行路线	扫码骑车	边骑行边看周围的风景	到达目的地骑行环看风景	转换骑行路线	停下进行拍照	继续骑行环绕至结束	图文记录骑行过程分享给同好
行为	打开地图规划路线并导航	打开微信扫描单车二维码	骑行路上环视周围景观，停停走走	寻找合适的环境在附近骑行	询问老骑手找到另一条骑行路线	打开手机相机功能进行拍照	锁车结束骑行	将图文记录旅程，分享给同好和好朋友

BEFORE

Choose a suitable route

An unfamiliar place means time spent comparing maps.

Surface route detail and rider discussion.

DURING

Enjoy and capture the ride

Conditions make it difficult to record every moment.

Let the rider recover and organise the record later.

AFTER

Remember and share

Photos and route records live in separate places.

Bring the route, photos and reflection together.

QINGJU / FROM HMW TO A CONCEPT

Choose opportunities that reinforce the riding experience.

We compared ideas using novelty, usefulness, feasibility and relevance, then connected the selected ideas into a growth loop.

NEED

Recall a ride even when it was hard to record.

Research synthesis

HOW MIGHT WE...

Help people reconstruct the memorable parts afterwards?



A reframed design question

CHOSEN CONCEPT

Combine route history, photos and a scenic-card cover.



Ride Memories



Keep the loop connected.

Discover a route → ride → receive a relevant reward → remember or share the experience.

The intended benefit was a reason to return to the product around the ride. The operational cost of routes, rewards and partners remained a key trade-off.

QINGJU / MY LOW-FIDELITY FLOW

Make one route through the concept easy to follow.

The wireframes connect route selection, detailed information and the end-of-ride decision. English labels explain the original Chinese interface.



Entry

Choose a route from the map.

Decision

Read route detail and rider experiences.

Continuation

After the ride, keep a memory or publish a reflection.

01 / DISCOVER A ROUTE

02 / REVIEW + START

03 / END + RECORD

Research connected the growth brief to a usable concept.

My contribution moved from the leisure-riding hypothesis through research synthesis to the low-fidelity interaction flow.



TEAM UI / RIDE MEMORIES



TEAM UI / ROUTE DISCOVERY

Delivered

Research, user models, journeys and wireframes that informed the team's final concept.

A trade-off I would revisit

Curated routes, rewards and merchant links add operational dependencies. I would first test the value of the route-and-memory loop.

Limits & next steps

The study focused on a selected leisure context. Survey totals are retained from the original record. Adoption and increased riding remain outcomes to validate.

COMMONS FRIDGE / MA FINAL PROJECT

Make shared care easier to negotiate.

A physical-and-digital system for shared kitchens: clarify ownership, intention and permission at the moment they matter.

ROLE & SCOPE**ROLE**

Research, interaction design, character system and functional prototype.

TEAM

Individual MA project with academic supervision.

TIMELINE

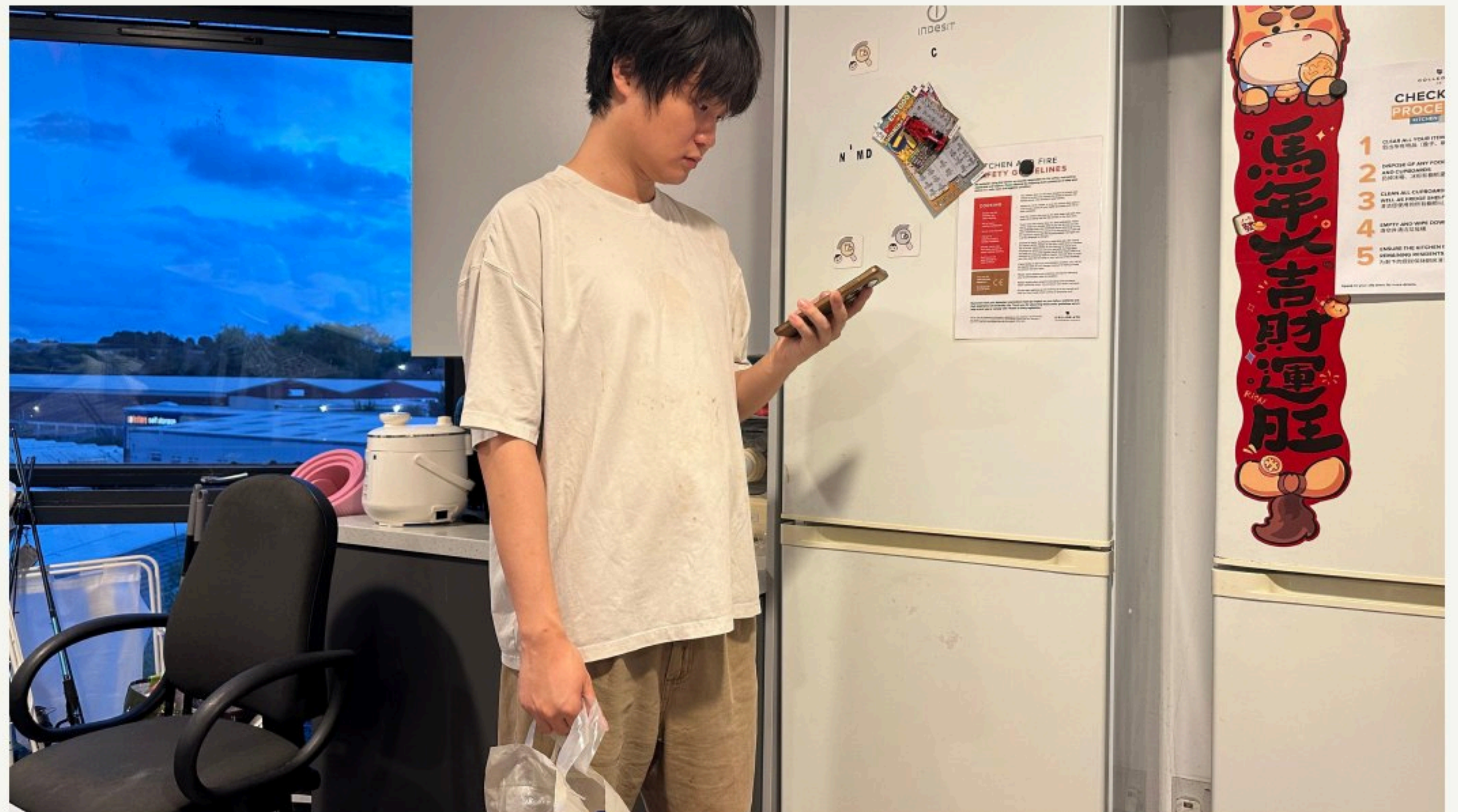
2026 / research, final submission and later iteration

PLATFORM

Fridge touchpoints + bilingual mobile web

SCOPE

University of Southampton, Winchester School of Art. AI-assisted character exploration and refinement.



COMMONS FRIDGE / FIVE HABIT INTERVIEWS

The friction was social as well as practical.

The research changed the problem from keeping records to making shared action easier to discuss.

研究基础 · 五场共享冰箱习惯访谈

五场访谈全部为习惯访谈，均未包含参与者使用原型。所有引用使用匿名编号 U01-U05，行为卡编号 U0x-Bxx。

U01

→ 画像 C

空间结构
分区冰箱 + 混用冰箱并存，兼任协调者

已有管理方式
纸质清单 + 备忘录 · 分类 · 提醒 · 复位

主要失效方式
旅行打断计划；混用冰箱失序；维护劳动集中在一人

U02

→ 画像 B

空间结构
9 人多冰箱，个人分层，门侧混用

已有管理方式
餐次规划 · 位置记忆 · 熟悉后借位

主要失效方式
食物淡出注意；担心群消息像抱怨而不发声

U03

→ 画像 A

空间结构
个人分层，冷冻 / 门侧较灵活

已有管理方式
购物前查看 · 短周期使用 · 转冷冻

主要失效方式
长期自制食物难判断；搬走后遗留大半学期

U04

→ 画像 A

空间结构
多台冰箱，多数时间独用小冰箱

已有管理方式
三天规划 · 少量多次 · 固定分类

主要失效方式
期末高负荷；开封物发霉；无人认领

U05

→ 画像 D

空间结构
无分区 / 软分区，关系发生变化

已有管理方式
拍照处理 · 共同清理 · 后期尝试个人一格

主要失效方式
超量购买；软规则失效；冲突后退出使用

U02 / COMMUNICATION

A reminder can sound like blame.

Reduce the social cost of raising a concern.

U01 / COORDINATION

Care falls to the person who notices.

Make the next shared action visible.

U05 / BOUNDARIES

Vague rules can become conflict.

Keep ownership and permission explicit.

Research synthesis → a system that helps people declare a plan and ask, while keeping uncertainty visible.

Support the critical moment instead of tracking everything.

A complete inventory depends on repeated data entry. I reduced the commitment to a few moments when a record can help.

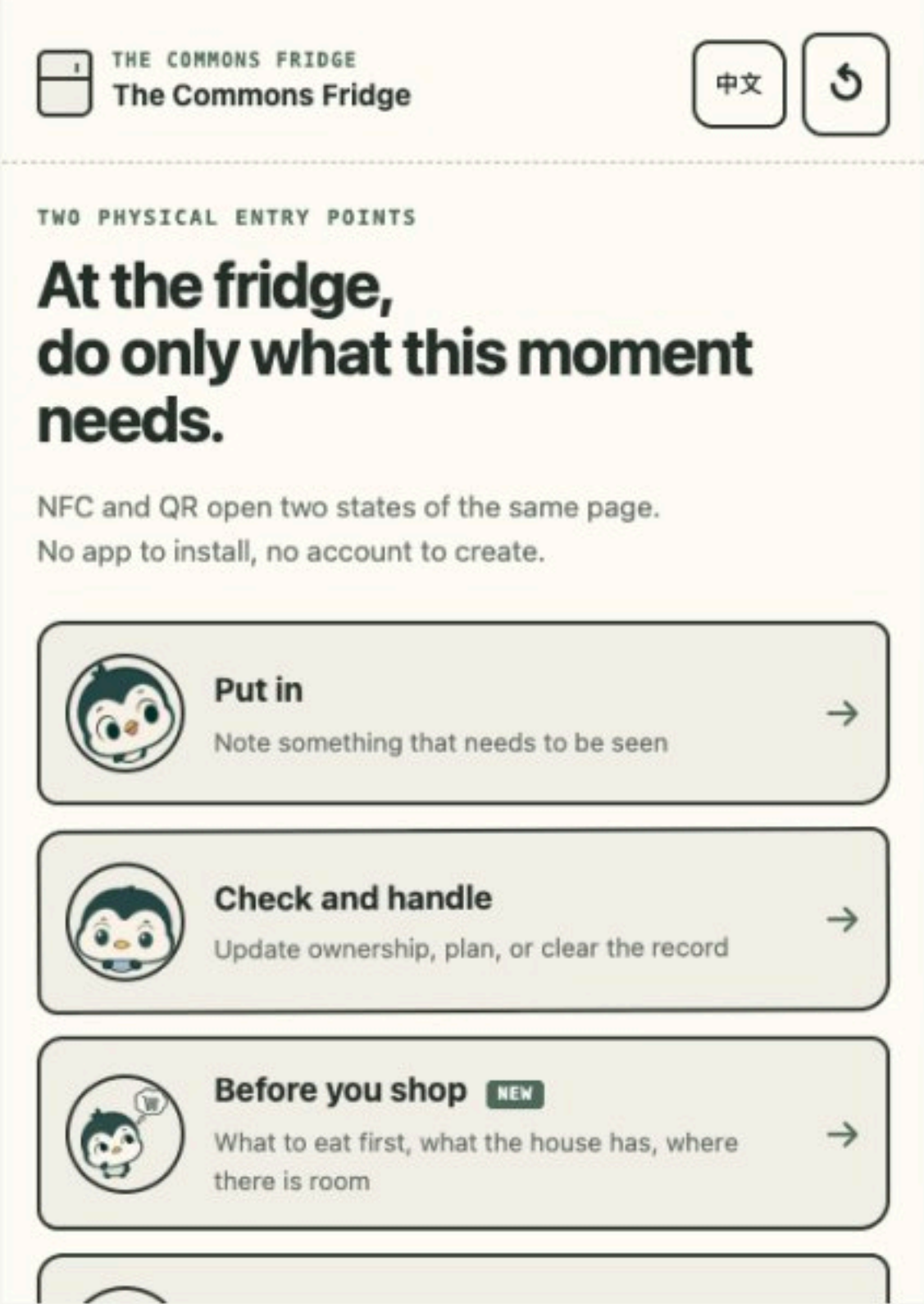
EARLY DIRECTION / COMPLETE INVENTORY

Log every item

Maintain quantities and dates

Keep the record continuously current

Concept summary of the earlier direction



Put in

Record a chosen plan.

Check + handle

Review what needs attention.

Before shopping

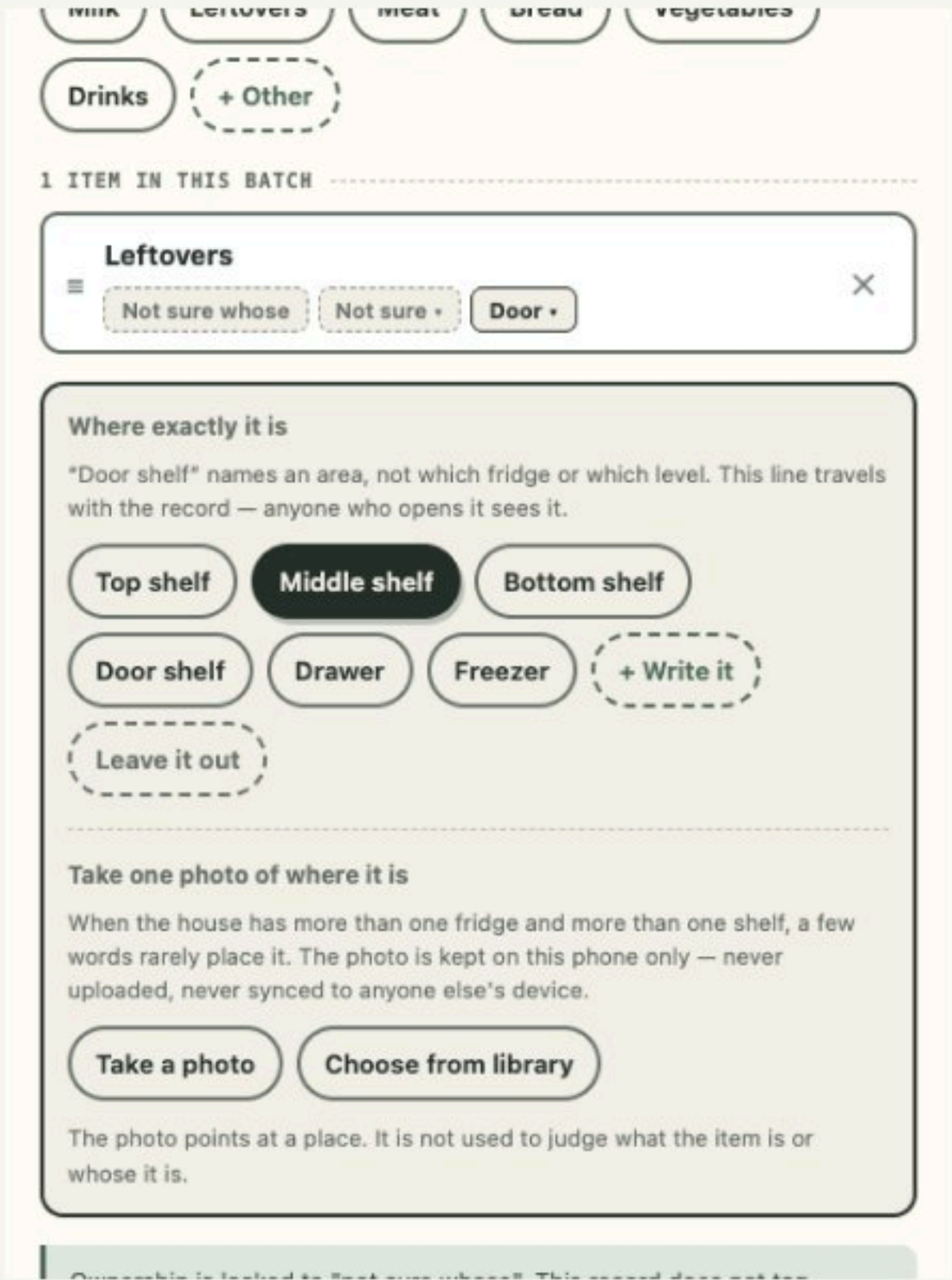
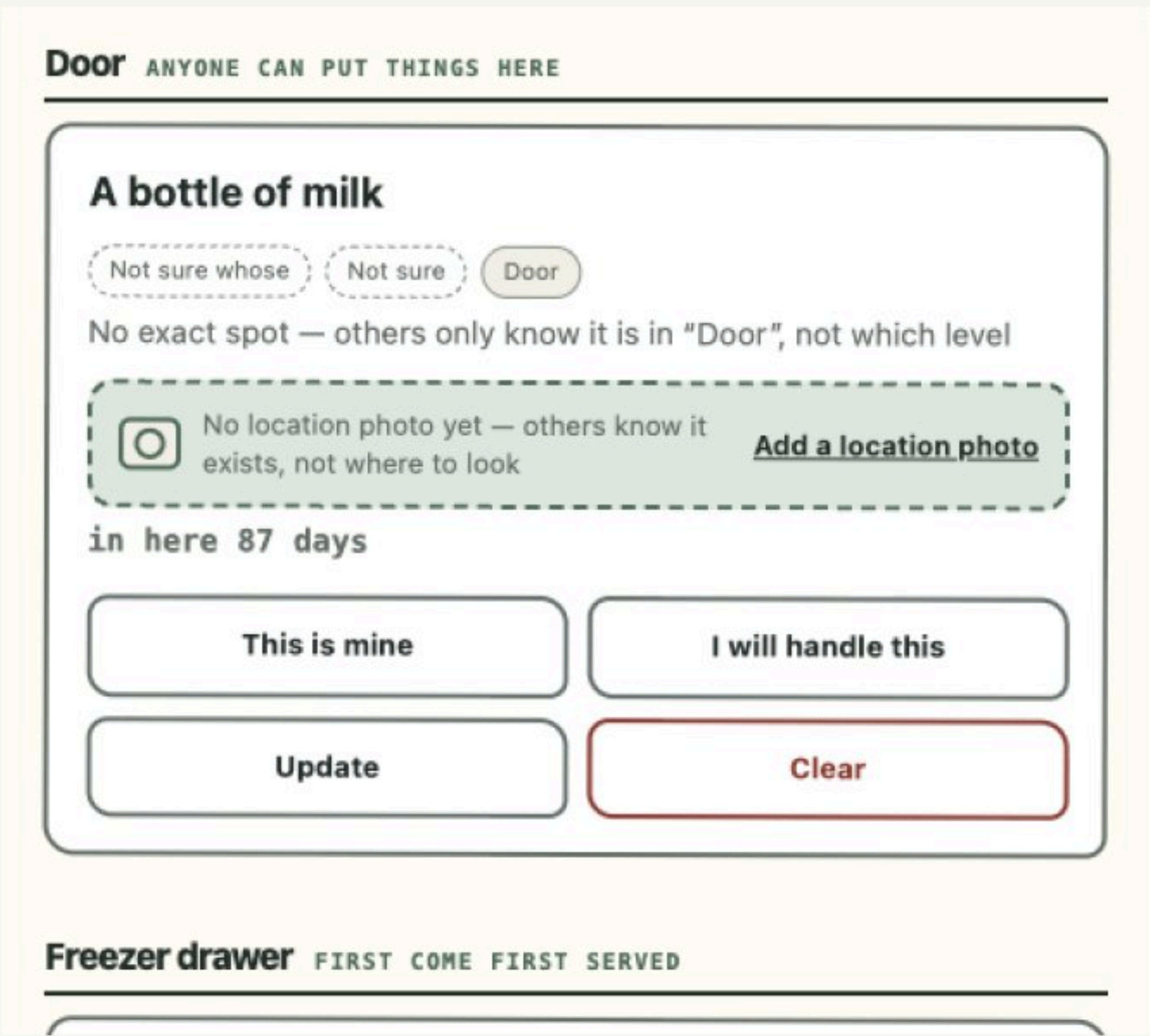
See what is already there.

Found something

Raise uncertainty without assigning an owner.

Visibility and permission are separate decisions.

The House view groups items by area. Being able to see something does not establish ownership or authorise disposal.



Locate

Area and exact spot help someone find an item.

Keep uncertainty

An unclaimed item remains unknown until it is explicitly claimed.

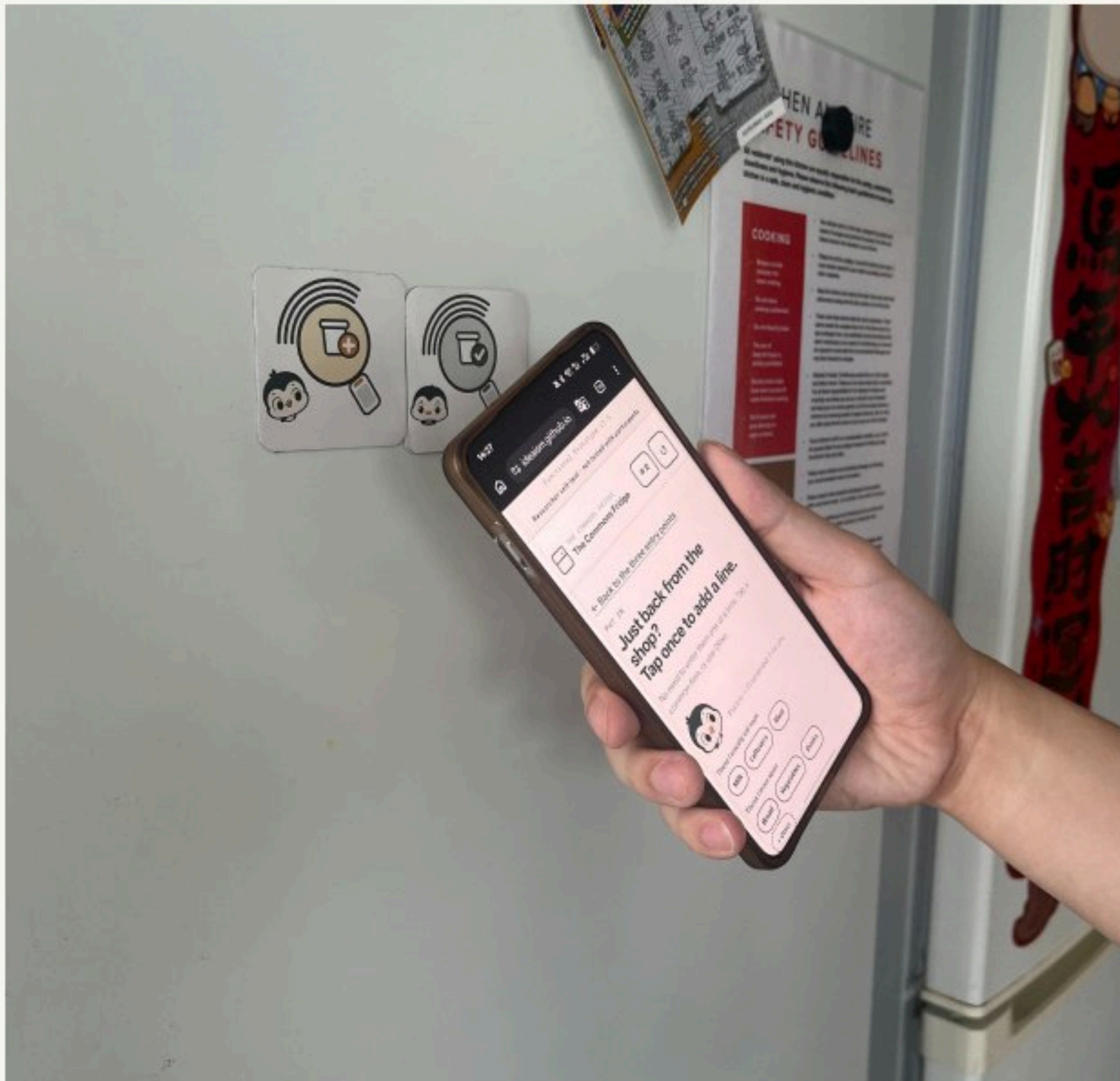
Ask or declare

This distinction also matters in consent flows and shared-account permissions.

COMMONS FRIDGE / PHYSICAL + DIGITAL

Put the entry point where the action happens.

Two visible fridge touchpoints open the relevant mobile route. NFC and a QR fallback connect the physical prompt to the phone.



ADD / RECORD AN INTENTION

A short route while putting food away.

The touchpoint makes the moment of entry concrete.



MANAGE / CHECK TOGETHER

A separate route for handling what is there.

The character offers a caring, neutral presence.

COMMONS FRIDGE / CHARACTER + MOTION

Give the character a useful role in the interaction.

I developed a consistent penguin system through AI-assisted visual exploration, selection and refinement, then extended it into motion studies.



INVITE



ACKNOWLEDGE

A small behavioural vocabulary

Invite an action, acknowledge a record and offer a shared moment of care. Next explorations: tactile feedback and assisted input.

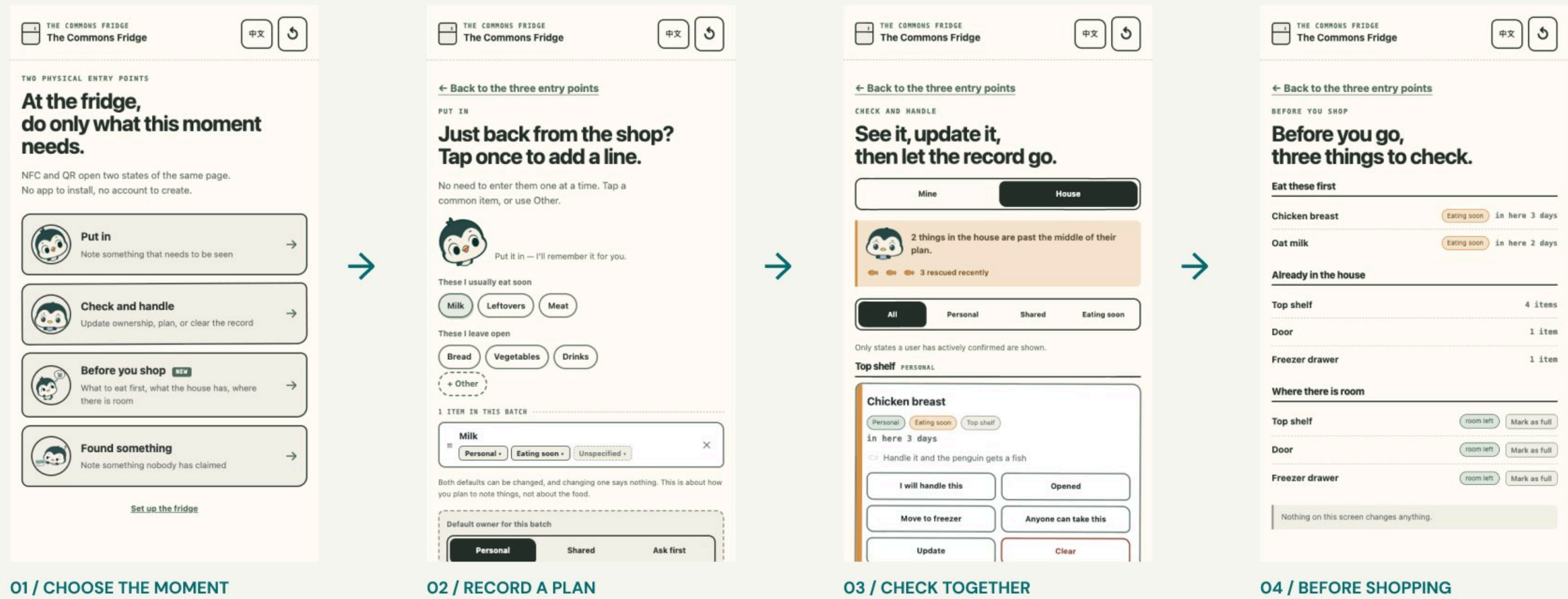


EXHIBITION MOTION STUDY / SEPTEMBER 2026

COMMONS FRIDGE / FUNCTIONAL PHONE FLOW

Record a plan, review it, then let the record go.

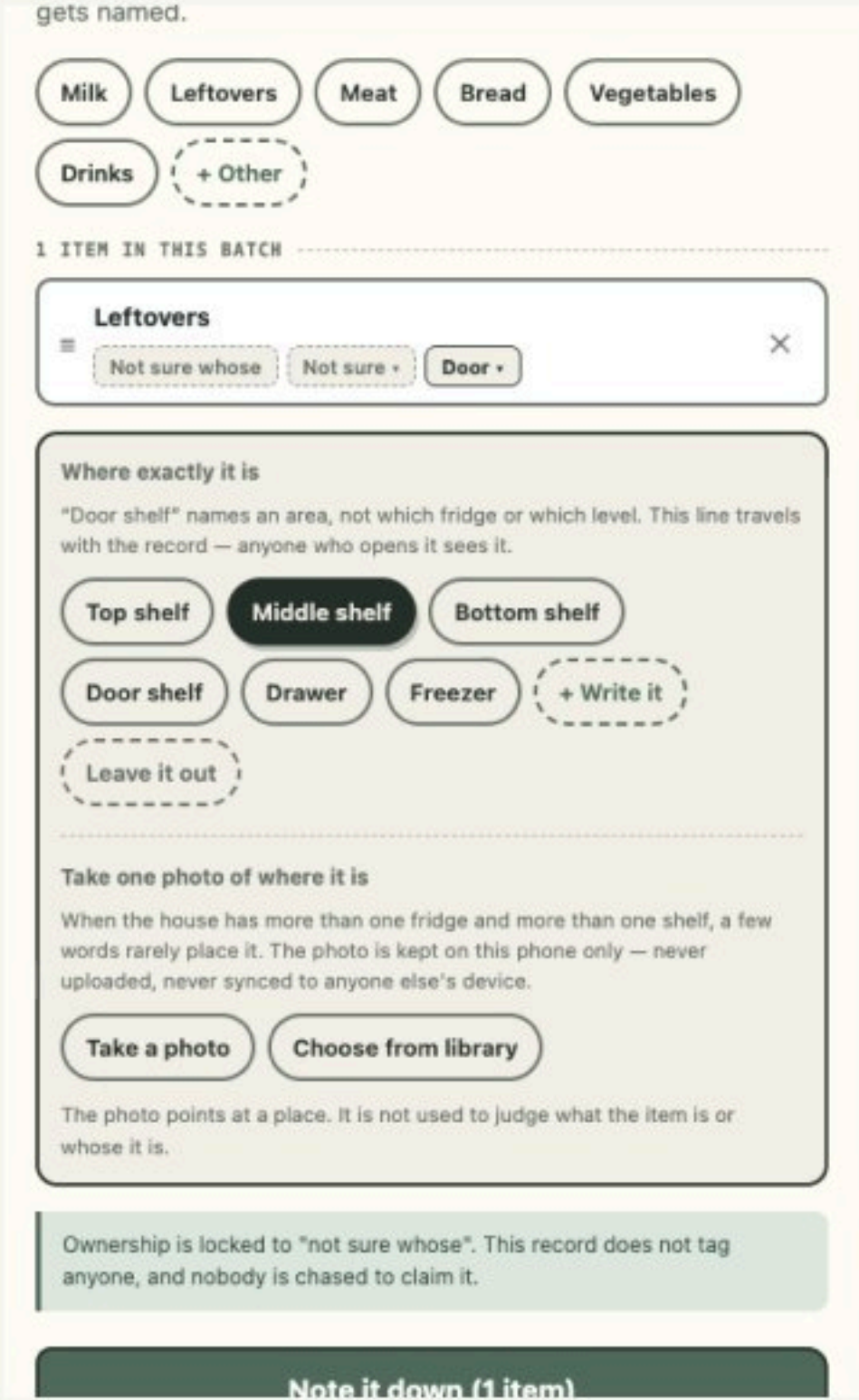
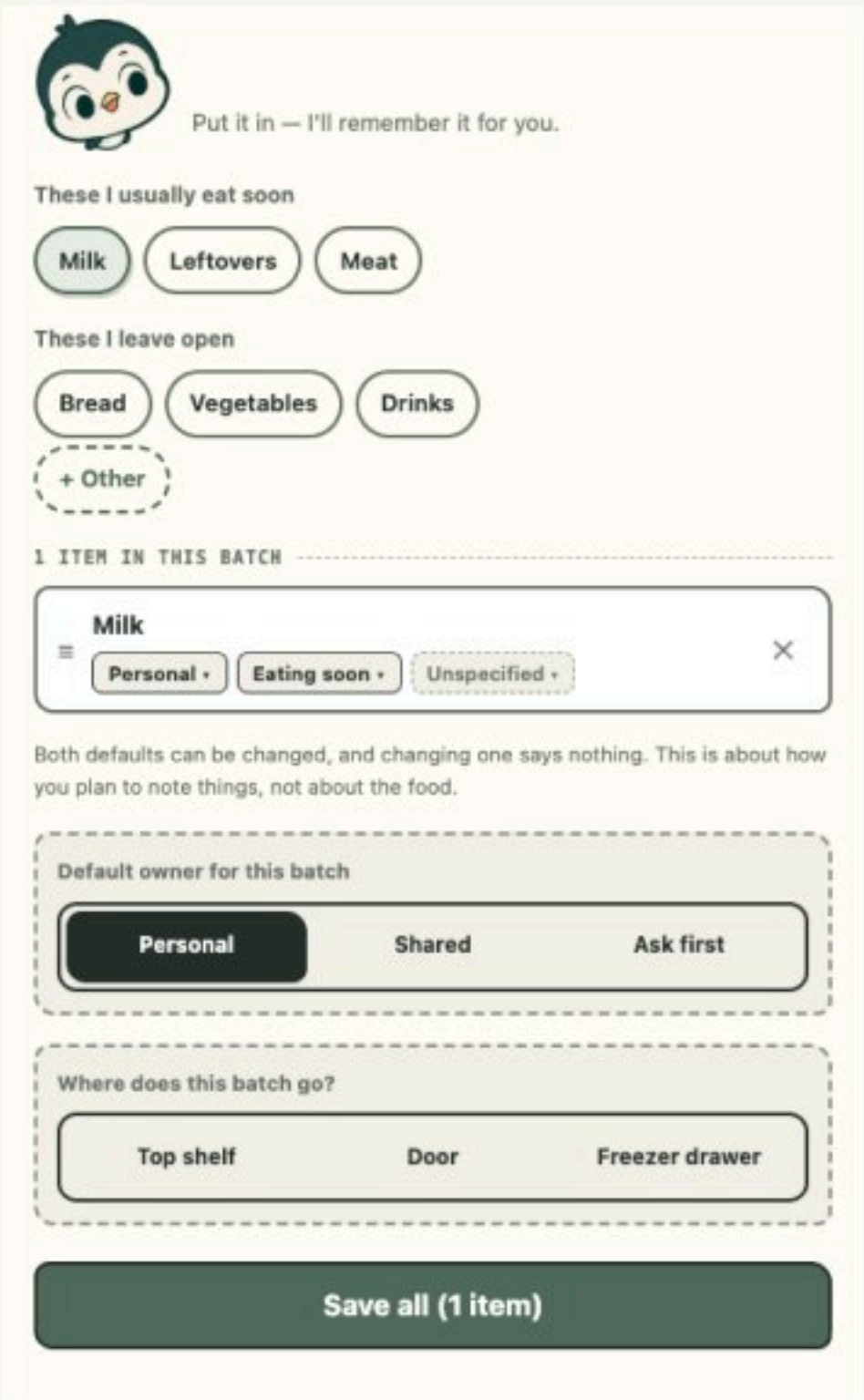
The current v1.7 prototype connects a chosen plan to review, shopping and found-item handling in English and Chinese.



COMMONS FRIDGE / OUTCOME + NEXT ITERATION

The prototype now has participant testing to build on.

Research, interface rules and physical touchpoints have become a working prototype, followed by participant testing.



Delivered

Five habit interviews; a character-and-touchpoint system; a bilingual functional prototype. The later v1.7 build adds exact-location text and an optional local photo.

Latest stage

I have carried out participant testing and am continuing to refine the design.

Limits & next steps

The prototype stores records locally in one browser. The next iteration will connect test observations to specific changes; household coordination and longer-term use remain the broader evaluation questions.

I turn designs into products people can actually use.

Claude Code and Codex are part of how I design: I define the rules and states, build a working version, test it, then iterate.



01 / COMMONS FRIDGE

A working prototype, built in nine versions

v1.0 → v1.8 with Claude Code. Opens in the phone browser from an NFC tag or QR code on the fridge, with no app or account.

ideaism.github.io/commons-fridge-functional-v1



02 / THIS PORTFOLIO, AS A WEBSITE

Built with Codex in Chinese and English. Original screens become clickable flows and live demos.

yucheng-feng-portfolio.vercel.app

01 Rules and states in Figma → 02 Build with Claude Code / Codex → 03 Test on a real device → 04 Version, review, iterate

AI writes most of the code under my direction. The scope, interaction decisions and testing are mine.

YUCHENG FENG / TOBIE

Clear structure. Explicit decisions. Thoughtful interaction.

I'm interested in product design where business complexity needs to become something people can understand and control.

Structure

Model reusable business units and preserve their meaning.

Behaviour

Connect tasks, states and consequences across a product.

Judgement

Use research and constraints to choose what deserves attention.



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Portfolio website (Chinese / English)