

D-HEART REDESIGN REPORT

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1.

REFRAMING

1.1 Reframe Persona

1.1.1 Semi-structured interviews

In *check point 1*, we focused on a **specific user scenario** too narrowly, and design requirements were not closely related to that scenario. To verify whether we could continue designing based on this niche market, we visited several gyms and pharmacies to do semi-structured interviews and understand their thoughts on shared portable ECG devices. From these interviews, we drew the following conclusions:



- 1/ There is not enough space inside the gym to set up a place for ECG self-testing;
- 2/ Most gyms have partnerships with medical institutions for affordable ECG testing, and they also have an in-house doctor available at reasonable price;
- 3/ ECG testing is not a frequent demand for gyms, and they don't want to invest time and effort in operating this service.



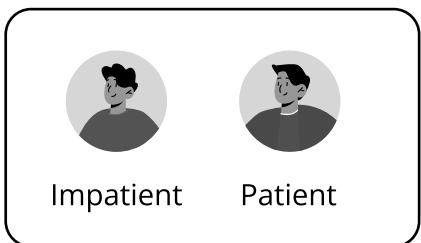
- 1/ The presence of a health worker is required to conduct the ECG on patients, making it more reliable. However, the use of an operator results in high costs for the pharmacy;
- 2/ They're already using more calibrated machines, supplied and recommended by health facilities.

Conclusion:

The sharing mode of the ECG device is not very feasible. Therefore, we decided to broaden the user scenarios and focus on addressing user needs and system-related issues.

1.1.2 User mapping to model primary user

We analyzed the demographic information and behaviors of participants to identify the primary user that our redesign could target. First, we extracted some commonalities: they are almost all **inexperienced users of ECG** and **without medical background**. Then, we found some important variations in behavioral variables:



One is that some users are **impatient** with the process, especially when encountering some problems and tedious user flows, and they express negative emotions during the user test; Other users tend to be more **patient** with the problems occurred, they tried multiple times to complete the tasks.

Another variation is that some users with **limited tech skills**, they find it challenging to get started with new devices, like D-heart, they're easier to express upset and confusion; Other users who **are skilled in** electronic products tend to express less anxiety and confidence.



In the end, we decided to **narrow down to the type of users with impatient attitudes and poor tech skills**, in the meantime, they are **novice users without medical background**, as it can lead us to gain insight into the specific needs of our target users, which if solved could also address the core requirements of secondary users.

1.1.3 Persona of primary user



Name: Mavis Barry

Occupation: Student

Age: 23

Experience: Novice user of ECG

Location: Europe

Family:

Family members with a history of heart disease

Pain Points

- Too shy to ask for help
- **No medical background**
- Afraid to make mistakes
- Prone to **anxiety**

Behaviors

- Easily **puzzled** by the **interaction logic**
- **Frustrated** with tedious user flow
- Frequently express **confusion and seek assistance**

Attitudes and Skills

- Tend to be **impatient**
- Not familiar with medical devices
- **Poor skills** in technology
- Concerned about her health

Goals

- Keep track of heart health **regularly**
- Complete tests **conveniently and independently**
- Get **reliable** and **fast** medical reports

1.2 Reframe Problem & Vision Statement

1.2.1 Problem statement

The current product **fails to engage novice users** (young adults) to perform the ECG test successfully and sufficiently, especially for **those who are not patient enough** and **without medical background**. Since they tend to frustrate from the unclear guidance and tedious process flow.

1.2.2 Vision statement

The redesigned product aims to enhance **usability and experience** of the ECG testing for novice users (young adults), especially for those **who lack patience, have poor tech skills and possess no medical background**, by eliminating learn curve, offering intuitive guidance and emotional design.

1.3 Reframe Design Requirement

Based on the insights from user test, we identified clusters of user problems, and tried to view these problems from the product's perspective and analyze the underlying user needs, which leads us to define the design requirements.

User Needs and Problems	Design Requirement
Lack of guidance	Ease of learning
Tend to encounter errors when wearing the device	Provide clear placement guidance before ECG recording
Difficult to distinguish different Bluetooth connection status	Display distinct and intuitive signifiers about different status
Tend to feel confused about pairing the device	Point out how to pair the device and provide error recovery approaches
Difficult to understand the professional terms of ECG results	Provide understandable conclusion and explanation about the ECG results
Struggle to memorize the tutorial due to its excessive length.	Provide step-by-step guidance for users to follow easily

User Needs and Problems

Hindered by usage friction

Difficult to find some functions, such as start testing, Bluetooth connection...

Set passwords several times unsuccessfully in registration phase

Caregivers have to fill in their own patient profile which is unnecessary

Design Requirement

Efficiency

Provide a clear hierarchy to help users find key and basic functionalities

Provide clear requirements checklist and give real-time feedback

Give users the freedom to skip some unnecessary steps.

Absence of feedback

Don't know whether their actions are correct or not

Don't know what to do when an error occurs.

Timely feedback

Give simple and apparent feedback on results once a task is completed

Clear error messages to effectively guide users toward correct actions

Lack of emotional support

Think current interfaces are a little dull, rigid and cliché.

Easy to feel bored and distracted during the usage.

Need further and deepening support from professionals

Want to share their own experience and learn from the experience of others

Engagement

Incorporate components tailored to the preferences of young users

Improve the level of involvement, interest, and interaction

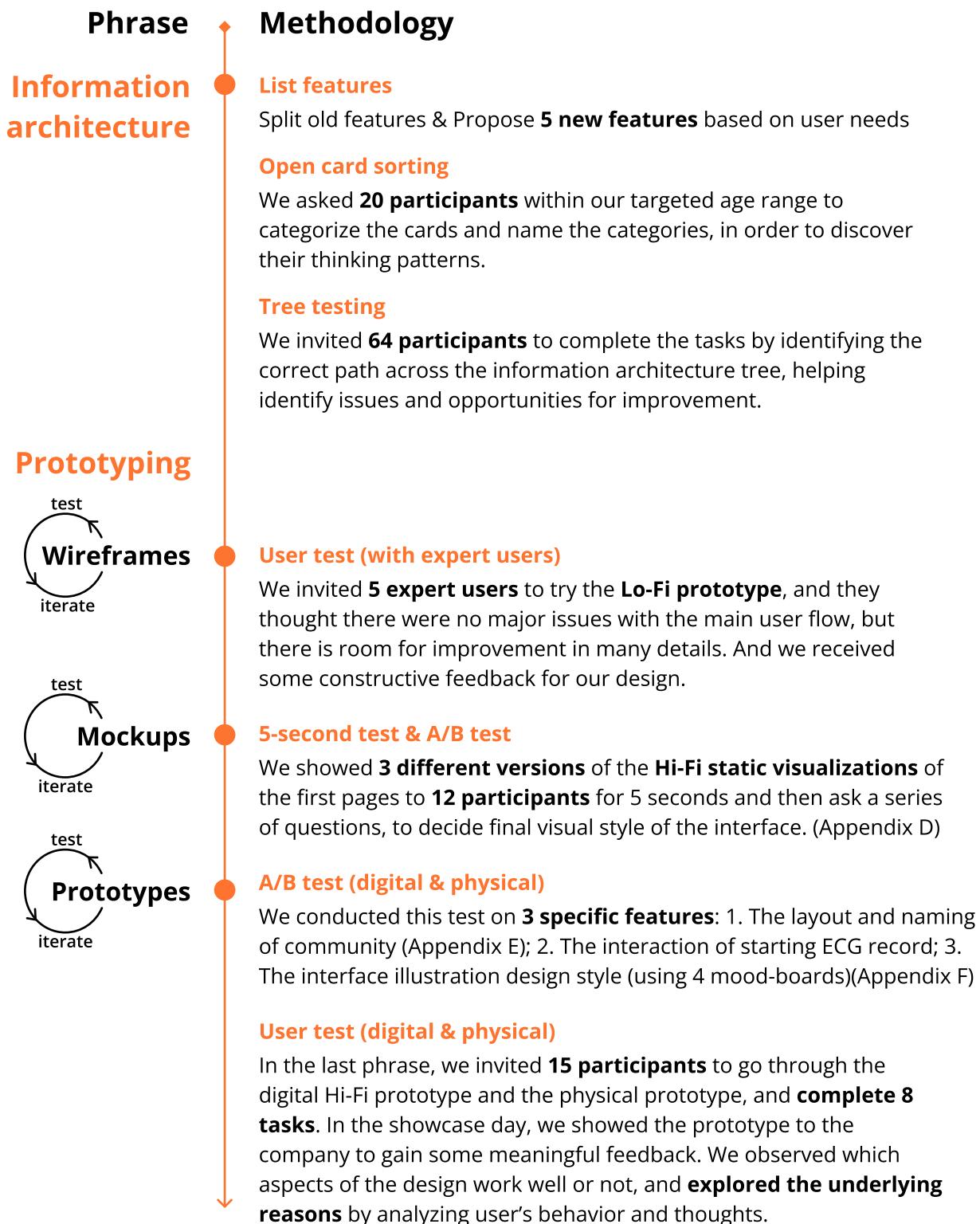
Bridge the gap of users and experts

Facilitate communication and interaction among users

2.

METHODOLOGY

During the redesign process, we applied the following methodologies as formative evaluation to iterate our solution step by step.



3.

KEY FINDINGS IN INFORMATION ARCHITECTURE

3.1 List Features

Old features	New features
Statistics Previous tests Start test Settings View & Edit account Patient list Get more report Send ECG record & get report Bluetooth connection Save, print and share record Record ECG Reminders ECG settings Device status Sign out	Community Premium Overall index of heart Knowledges Note Emergency call

Reasons for new features

1/Community:

Based on our user interviews, we discovered that many individuals seek a basic understanding of their ECG results and related professional knowledge. Additionally, they expected other user's sharing their experiences regarding ECG testing or health-related information. This sharing would allow them to learn from others' experiences and **find relatable references** directly.

2/Premium:

In line with our refined vision and business statement for the company, we introduced another strategic way to increase the sales of cardiologist's reports;

3/Overall index of heart:

In order to provide understandable conclusion and explanation about the ECG results, we added this feature to help users understand their heart health more clearly and simply based on the analysis of previous ECG tests;

4/Knowledges:

Officially releases information related to ECG, enhancing users' trust in the product;

5/Note:

Help users log down their daily symptoms and feelings, aiding cardiologists in more accurate diagnoses; Users can also refer to their notes for future reference.

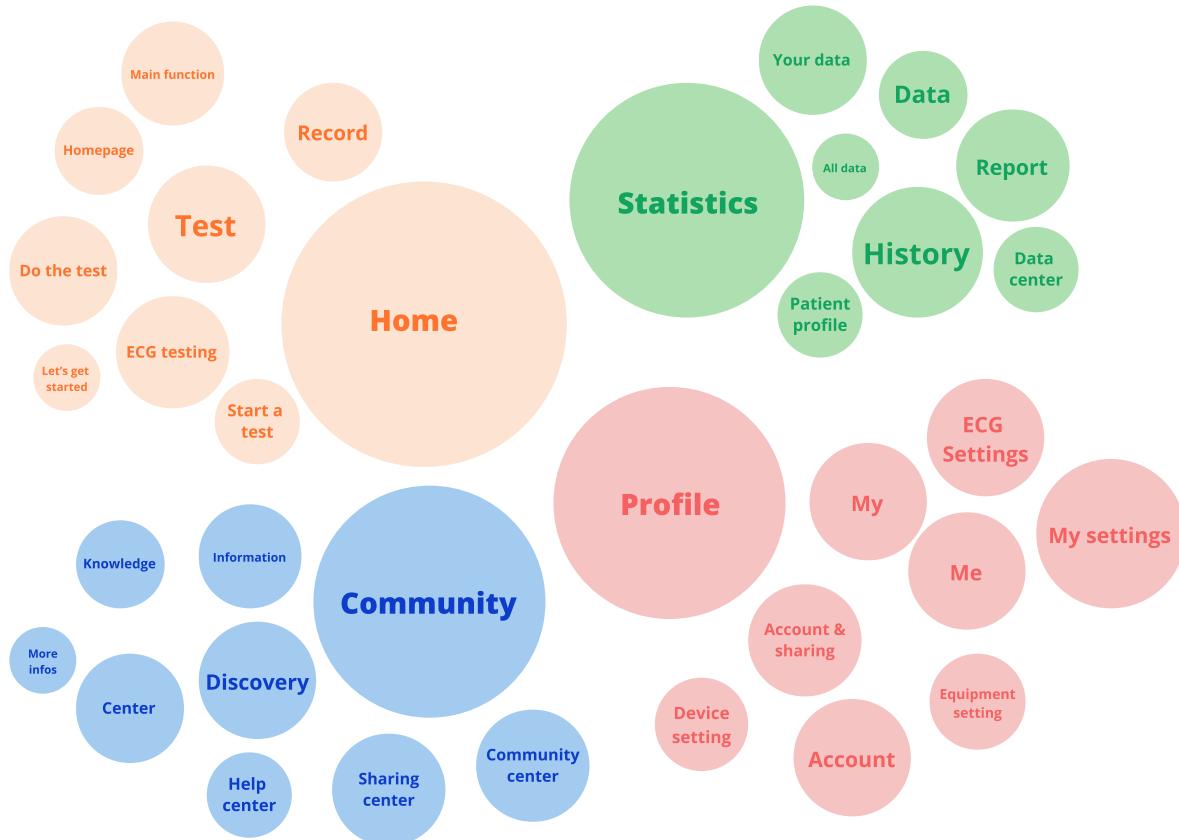
6/Emergency call:

Provide users with a sense of security and reassurance.

3.2 Open Card Sorting

In the open card sorting, a total of 20 participants filled out the questionnaire, but considering the time taken to complete the questionnaire, there were only **16 valid participants**.

The participants have different names for the categories, but it's possible to discern approximate categories.



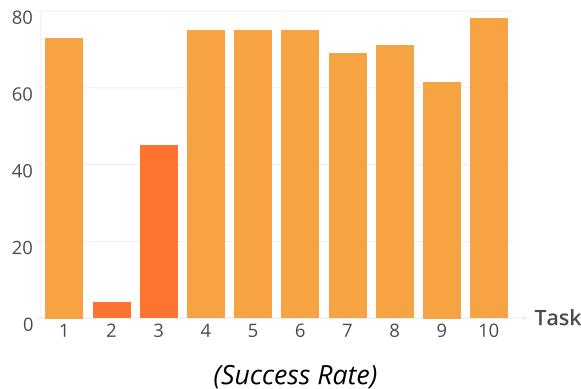
And then we count the **percentage** of the appearance of the features in each categories. Based on this statistics, we proposed the first version of information architecture. (Please view the detailed 1st version in [Appendix A](#))

3.3 Tree Testing

To validate that our information architecture (IA) aligns with users' expectations and mental models, we conducted tree testing. Through this process, we refined our IA based on the feedback received from participants.

We created the tasks outlined in [Appendix C](#) for participants to complete by using our defined Tree Structure.

In the tree testing, we collected responses from **64 participants**. The task success rate is below:



By analyzing how users navigate through our IA, we identified areas of confusion and made corresponding iterations to improve clarity and usability. Then we defined **four main categories** and each of their subcategories as follows, based on the first version of IA. (Please view the detailed final version in Appendix B)

Analysis

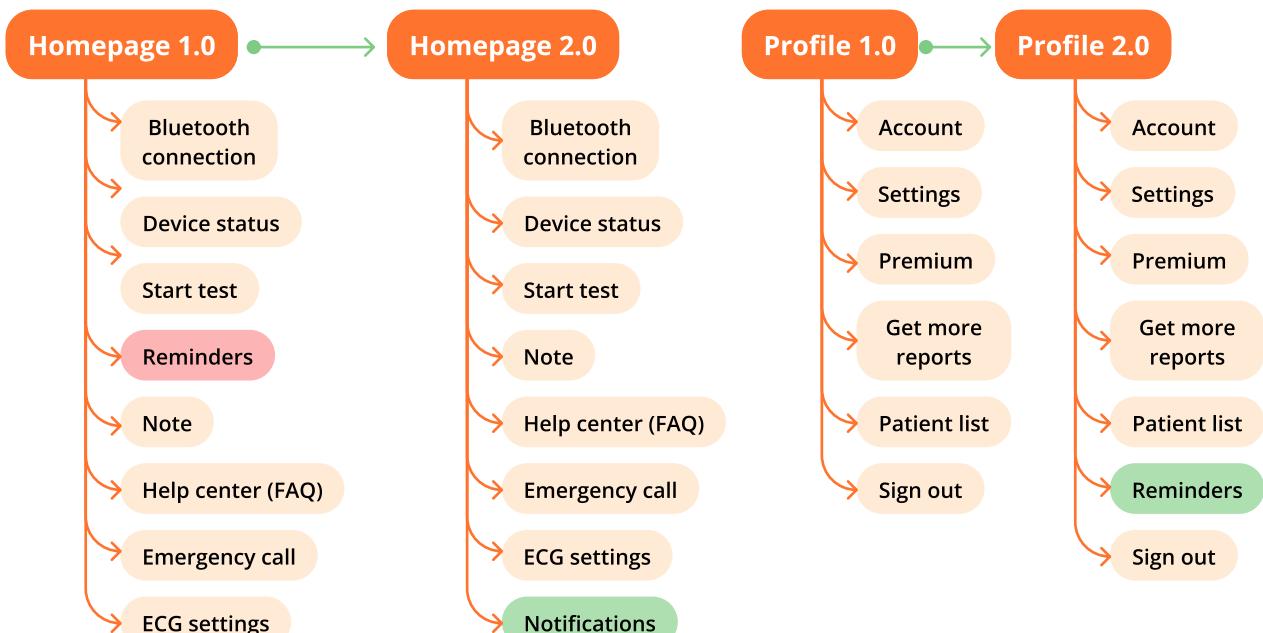
1/ The success rate of task 2 is the lowest, because most users wouldn't expect the cardiologist's feedback of the ECG record sent by the user to be in **Community**, this is counterintuitive.

2/ Although most users can find **reminder** in the **Homepage**, but another large group of users expects to find reminder in the **Profile**, as they do not consider it a frequently used tool.

Iterations

1/ We think it's better to put the **notifications** of cardiologist's feedback in a more obvious position: **Homepage**.

2/ We find users actually do not often modify the reminder from user testing, so we put the **reminder** in the **Profile**, and at the first page of Profile, make sure it's easy to find.



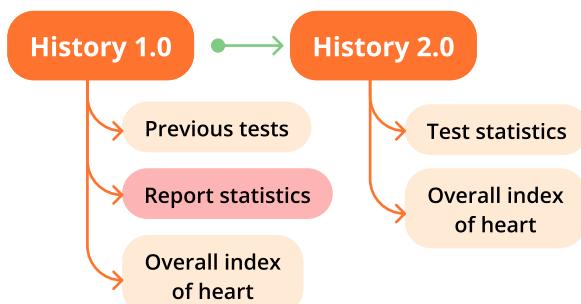
Analysis

3/ The success rate of task 3 is 45%, because some users tried to find report statistics in **Previous Tests**, they were confused about the difference between **Previous Tests** and **Report Statistics**.



Iteration

3/ After consideration, we found the ECG tests can be divided as "**sent to doctor**" and "**not sent**", and we can attach the report content in the former one.



Analysis

4/ During the testing, some users expressed their needs to **save** the meaningful and useful posts



Iteration

4/ We added a new "**Saved**" feature to allow users to save the posts they need.



4.

KEY FINDINGS IN PROTOTYPING

We initially structured the digital interface's tab bar to encompass the four primary categories in line with the IA. Following insights from user testing later on, we renamed them **Home**, **History**, **Explore**, and **Profile**. We conducted user testing combining the digital interface and the physical interface. The refinement of these four sections is demonstrated **from Wireframe to Mockup, and finally to Hi-Fi prototype**.

4.1 Physical Interface

4.1.1 Notify user when ECG recording starts

We discovered that many users were unaware that the device had begun recording their ECG. So we implemented sound feedback in the device, **eliminating the need for users to check the device or screen**.

4.1.2 Minimize inaccuracy

According to user interviews with doctors, body movement to interact with a distant screen can result in inaccurate ECG results. Additionally, the current automatic recording function does not always work well, as users being not ready. This prompted us to explore alternatives to **allow users to decide when** to start ECG recording.



4.1.3 Enhance battery level visibility

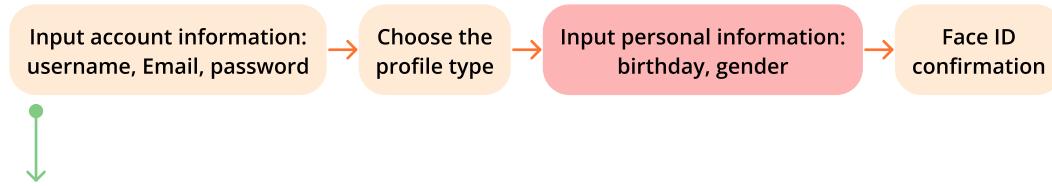
We found that many users are unsure **when the device needs to be charged**. It's also difficult for users to identify low battery levels as the device cannot connect to Bluetooth, leading to **connectivity issues** that are hard to diagnose.

4.1.4 Enhance recognition

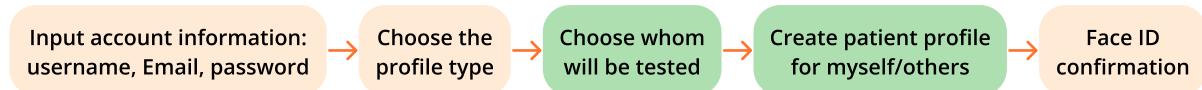
We observed that many users **overlook** the two electrodes positioned behind the device. Additionally, the phone insertion hole is too narrow. The hole also obstructs the information on the screen. Furthermore, first-time users find it **challenging to locate the charging area on the back**. These problems prompted us to make modifications accordingly.

4.2 Registration

The user flow 1.0



The user flow 2.0



Analysis

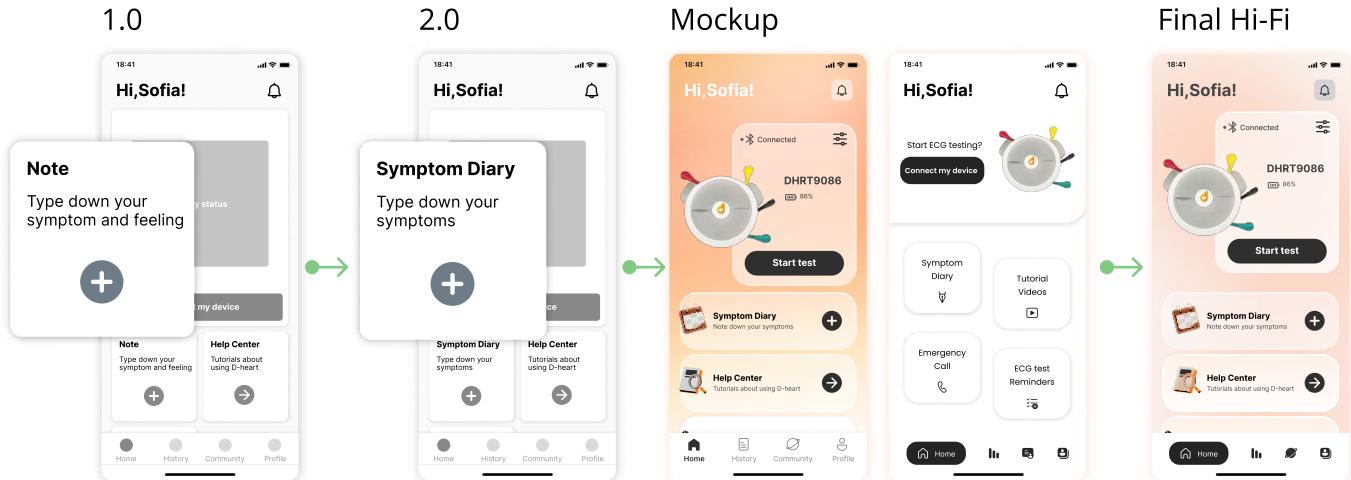
- 1/ During the user testing, we found it's better to **distinguish the account profile and the patient profile**.
- 2/ Users tend to connect Bluetooth and start testing immediately after finishing registration, and **ignore the creation of patient profile**.

Iteration

- 1/ We decided to not include the personal information (birthday, gender) in the account profile, since it's important for patient profile, and we wanted to distinguish between these two.
- 2/ We decided to insert the creation of patient profile in the registration flow, and give users the freedom to skip.

4.3 Home

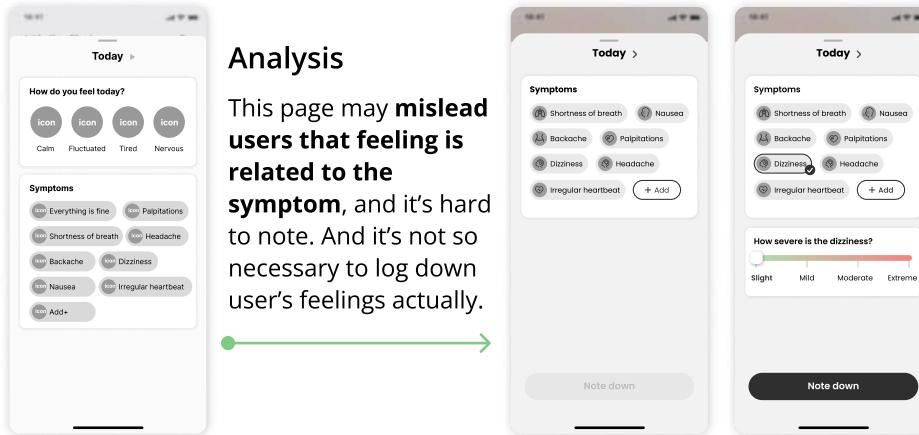
4.3.1 Home page



"Note" lets users **misunderstand** its meaning, and it's hard for users to associate it with logging down symptoms, so we refined its name into "Symptom Diary".

During the 5-second test for the mockup, we found it important to **make the hierarchy clear** and ensure the layers are **contrasted enough**.

4.3.2 Symptom Diary



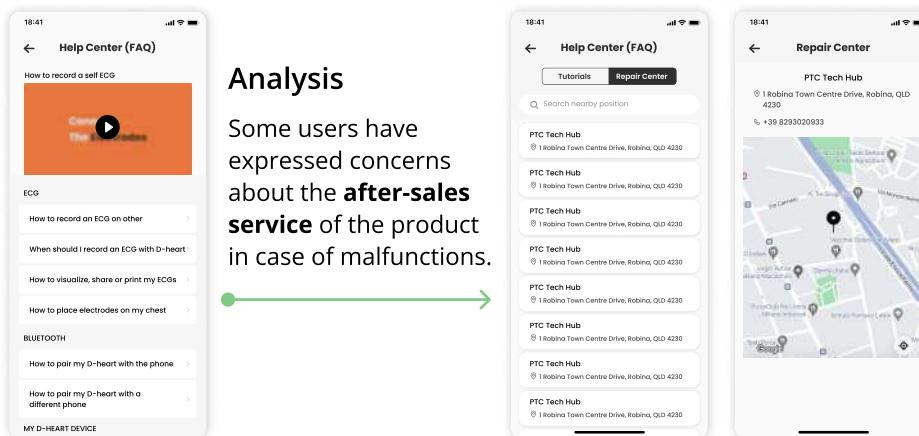
Analysis

This page may **mislead** users that **feeling** is related to the **symptom**, and it's hard to note. And it's not so necessary to log down user's feelings actually.

Iteration

We **removed the note on feelings** and added the **severity of symptoms**, which makes more sense for the diagnosis base.

4.3.3 Help Center



Analysis

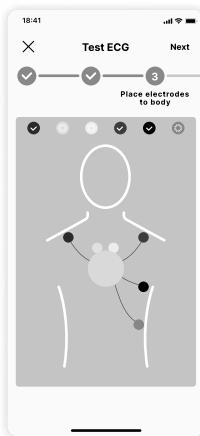
Some users have expressed concerns about the **after-sales service** of the product in case of malfunctions.

Iteration

We think D-heart could collaborate with some **repair centers**, making it easier for users to access repair services.

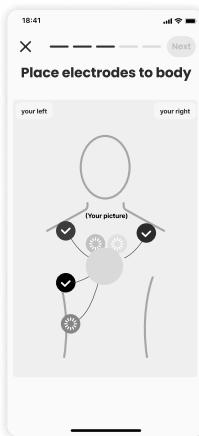
4.3.4 Testing

1. Electrodes placement page:



Analysis

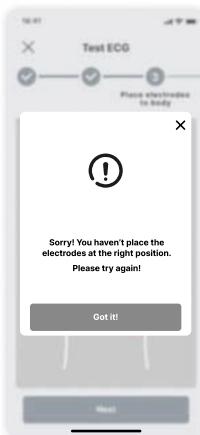
We found that it **costs time for users to associate** the electrodes of different colors, and the dots are **too tiny** to see.



Iteration

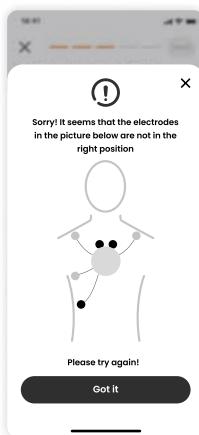
We put the process icons on the dots to make it more intuitive for users, and added the **directions** to help users understand the guidance picture.

2. Electrodes incorrect placement pop-up:



Analysis

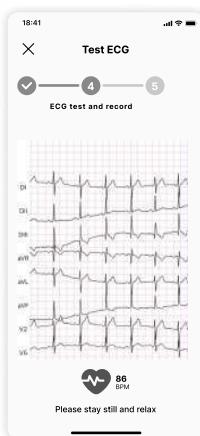
We found this feedback was **not obvious enough**, since it didn't specify which electrode was not properly placed.



Iteration

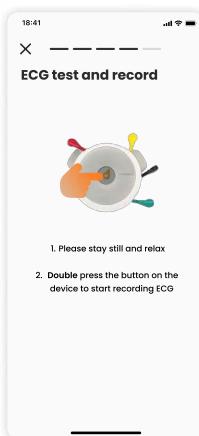
We added an illustration with blinking electrodes, to **accurately inform** users which one was incorrectly placed.

3. Start recording page:



Analysis

We found some users can **not prepare well** for ECG recording, they still need time to relax themselves and confirm the start of recording.



Iteration

We wanted to add a start trigger on the device to give users the **time to react** from the previous step, and **prevent users from affecting test results** by moving their body and clicking "Start Recording" on the screen.

Through the A/B test, most users prefer this way: **double press the button** to start recording, which has a significant difference from 'turn on/turn off' and is easily noticeable.

4. Recording page:

Analysis

Most users found it confusing since there were **two countdown timers**. Some thought the first countdown timer was already recording.

Iteration

We tried to **combine the two phrases** together to help users stay calm while recording their ECG.

5. Recording complete page:

Analysis

Some users may **confuse the term 'doctor' with their family doctor** and might not realize that sending a record to a doctor requires a certain amount of credits.

Iteration

We modified the term to '**cardiologist**' and displayed **the number of remaining reviews**. (Compared to the previous term 'report,' users understand 'reviews' more easily.)

6. Cardiologist's review notification:

Analysis

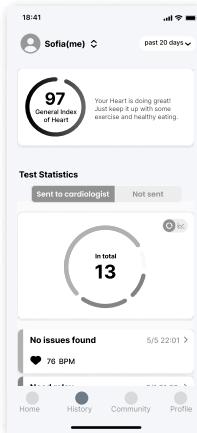
Some users want to ask experts **additional questions** about their test results, but there is no option for this.

Iteration

Considering the company's and experts' **profitability**, we added a **premium feature**. This not only increases D-Heart's revenue but also allows users to **leave messages** for experts and receive targeted responses.

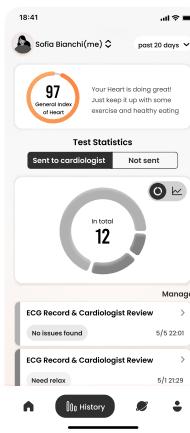
4.4 History

4.4.1 Homepage



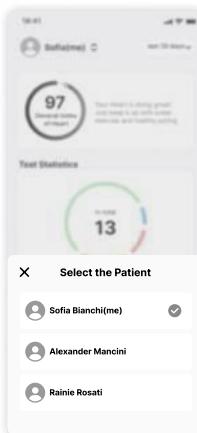
Analysis

1/ Most users **did not realize** that '**No issues found**' referred to the **cardiologist's review** of the ECG test, because we did not explained well.



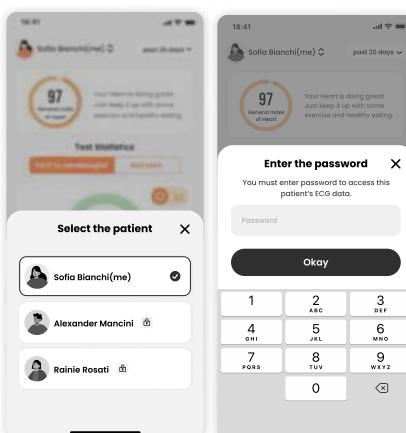
Iteration

1/ We addressed this issue by changing the title to '**ECG Record & Cardiologist Review**'. Labeling the cardiologist's review allows users to see it directly from this page.



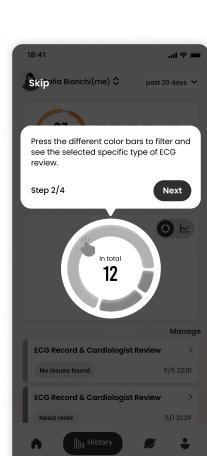
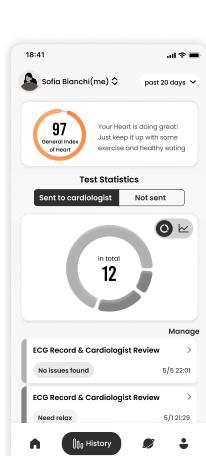
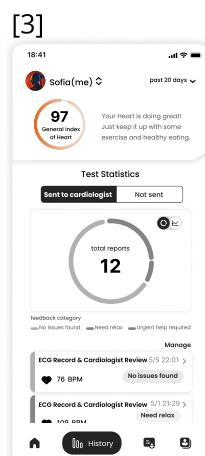
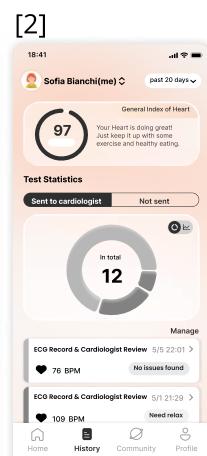
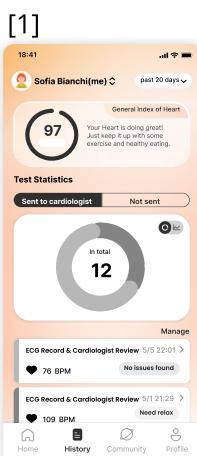
Analysis

2/ Some users expressed concerns about **data privacy**, which we lacked consideration.



Iteration

2/ We added the entrance of **password setting** to protect user's data.



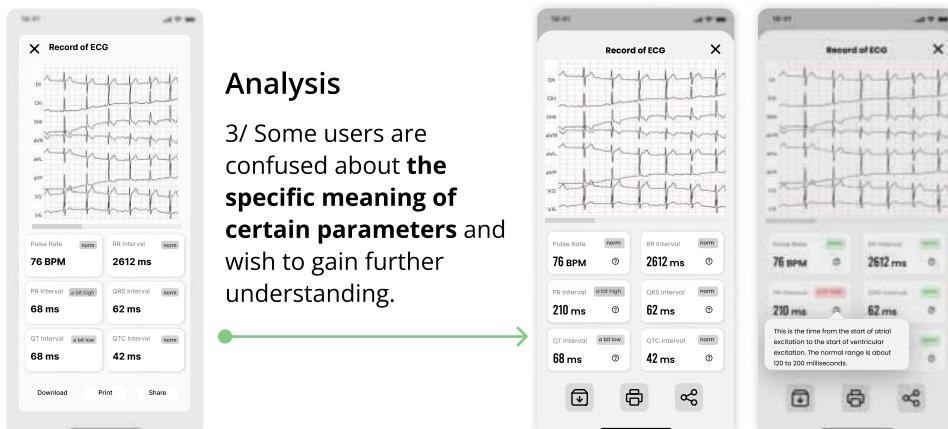
Analysis

During 5-second testing for the mockup, 9/12 chose the [3] version, and also expressed intention towards **less text** and **more obvious hierarchy**.

Iteration

So we modified it and tested again, finally adding a **novice layer** to introduce the function of clicking different color bars.

4.4.2 Test details



Analysis

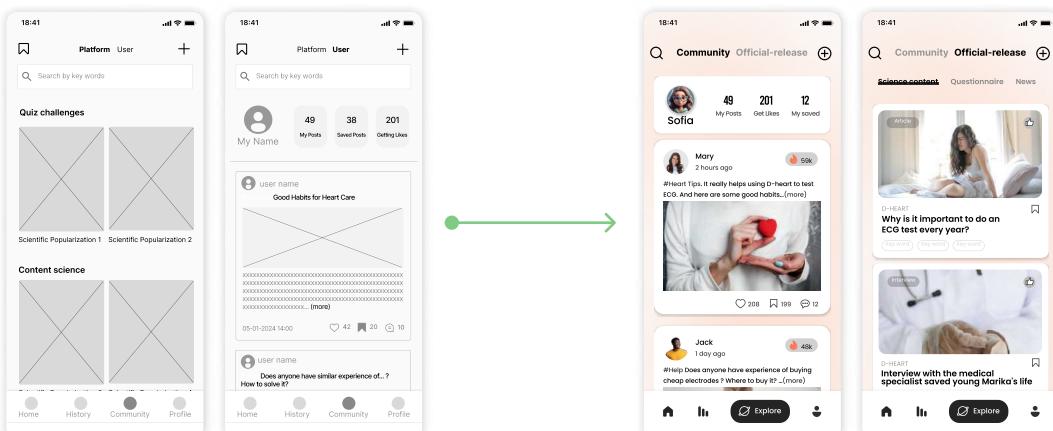
3/ Some users are confused about **the specific meaning of certain parameters** and wish to gain further understanding.

Iteration

3/ We added the icon that users can **click to view details** about the parameters.

4.5 Explore

4.5.1 Homepage



Analysis

1/ Users felt confused about the name of the tab labeled "**community**." They thought it was a space solely for user communication, but it also contained content published by the company.

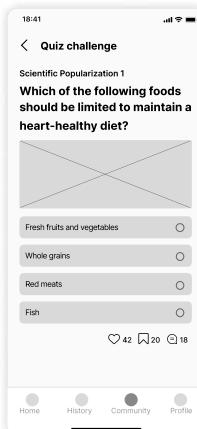
2/ During the **5-second testing** of the mockup, we found that users tended to prefer posts with **big pictures** rather than the two-column layout.

Iteration

1/ Through the **A/B test**, we found the solution: it's better to use "**Explore**" as the tab name. We also renamed the "**User**" tab to "**Community**" and the "**Platform**" tab to "**Official Release**," which proved to be more intuitive.

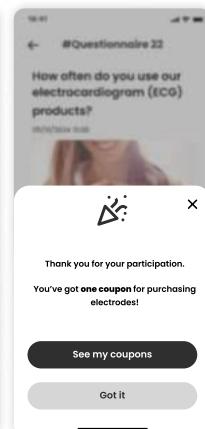
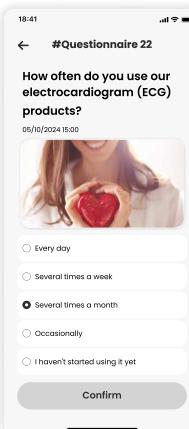
2/ We changed the post's layout into **one-column layout**, allowing for bigger images and more impactful visuals.

4.5.2 Questionnaire



Analysis

We found that the **quiz challenge** did not bring any benefits to the company.

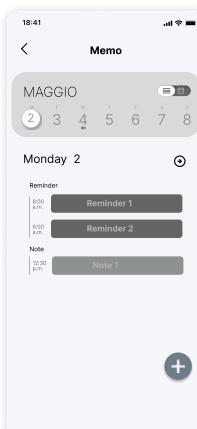


Iteration

We implemented **questionnaires on topics** of significant **interest to the company** for users to complete. Additionally, we incentivized user participation in this service by **offering coupons**.

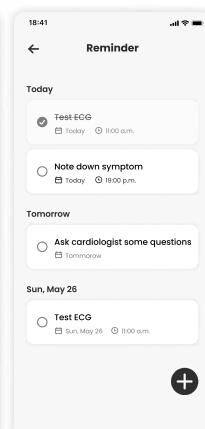
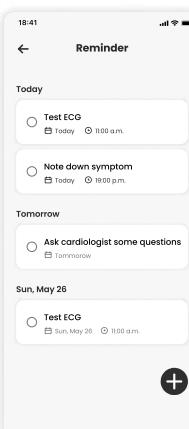
4.6 Profile

4.6.1 Reminder



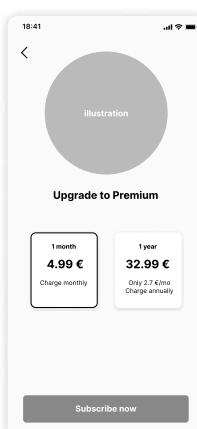
Analysis

Users tend to see all the reminders in this page, and whether each one is done. And they are accustomed to the **layout of reminders** on their phones



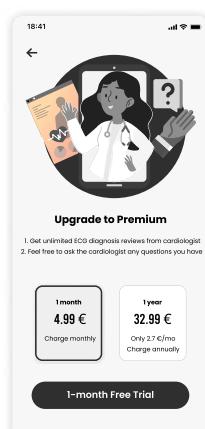
Iteration

We reorganized the reminders into a **to-do list** format, allowing users the **flexibility** to set exact time or not.



Analysis

Most users **hesitate to subscribe** to the premium service because they are unsure if the experience is worth the cost. And they are used to **a trial period** before subscribing to a membership.



Iteration

We added a **free trial** to encourage users to try the premium features, helping them understand its value and convert to paying customers.

4.7 IP Character Design

Characters are frequently used as a marketing tool because they can provide **friendly and positive images** by applying them to services or products. In the past, while characters were treated as things for young children, now the culture of consuming character-related products is more focused on the **20-30s**.

Based on user testing, we found most participants conveyed their **acceptance** of the present characters as suitable for their age and their **affection** for them, which features the D-heart device shape.

4.8 Interface Illustration Design

Taking into account the preferences of younger audiences, we explored the idea of incorporating interface illustrations into the interface. However, understanding the specific preferences of young users regarding illustrations in a healthcare app proved to be challenging. To tackle this issue, we designed **4 unique moodboards** (Please see Appendix D) for users to choose from, accompanied by **inquiries into their selections**. Through this process, we gained valuable insights:



Humanization

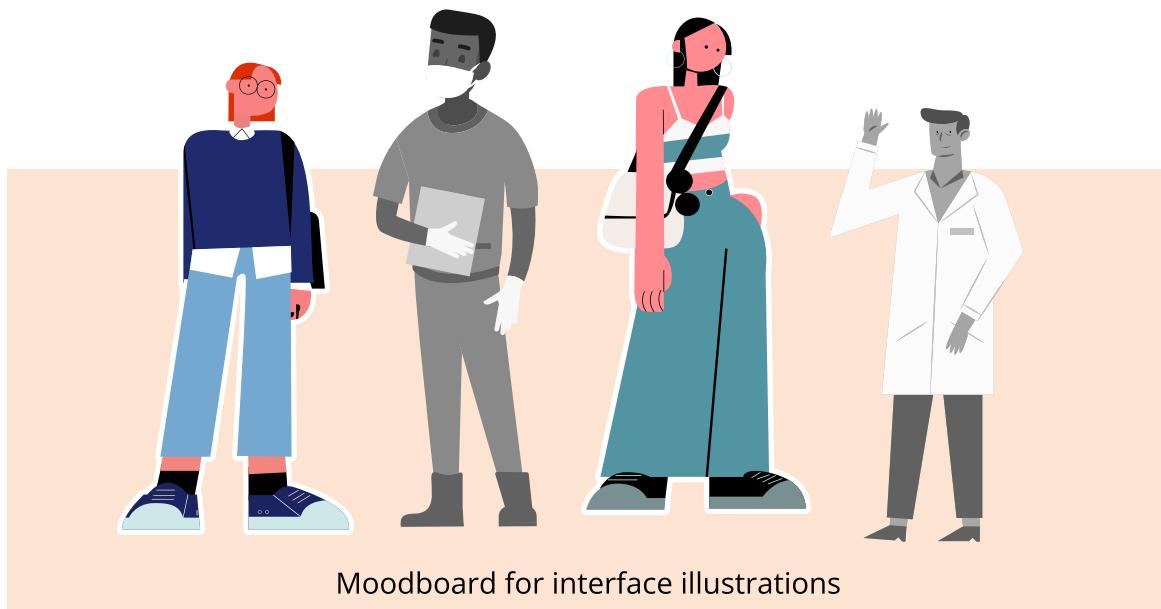
Most participants expressed their preference for **human-like features**, which fosters a sense of **familiarity, comfort and profession**.



Minimalism

Most participants indicated a preference for **minimalism and simplified shape**, which utilizes fundamental design elements to create a **clean and uncluttered** visual aesthetic.

Based on the results of user testing, we have developed the following moodboard direction for the illustration design style:



5.

KEY CONCEPT OF REDESIGN

Based on the **design requirements** identified during the initial user testing and the **key findings from the formative evaluation** conducted during the redesign process, we iterated the digital & physical interface step by step and arrived at the key concept for the redesign.



Progressive disclosure

Guide users through a process step-by-step. Ensure that users are not overwhelmed with information all at once and can **focus on completing one step at a time** with clear guidance and understanding of their current progress.



Simplicity

- Remove unnecessary elements and steps to make the user flow as **direct** as possible;
- Use **straightforward, jargon-free** language for text elements to avoid confusing users;



Sense of control

- Provide **contextual help**, offer guidance and **explanations** to help users learn how to use the interface more effectively
- Give users control over their **personal data**



Timely and clear feedback

Provide **clear feedback** on results immediately after completing a task, assisting inexperienced users in understanding the effectiveness of their actions and **identifying any mistakes** they may have made.



Emotional design

Create more **empathetic and supportive** interactions that evoke emotional resonance and engagement from users to enhance satisfaction and loyalty



Inclusivity and communication

Foster a **collaborative environment** where users can share information, exchange insights, voice their concerns, provide feedback, and assist each other, enhancing user **engagement, trust, and satisfaction**

5.1 Physical Interface

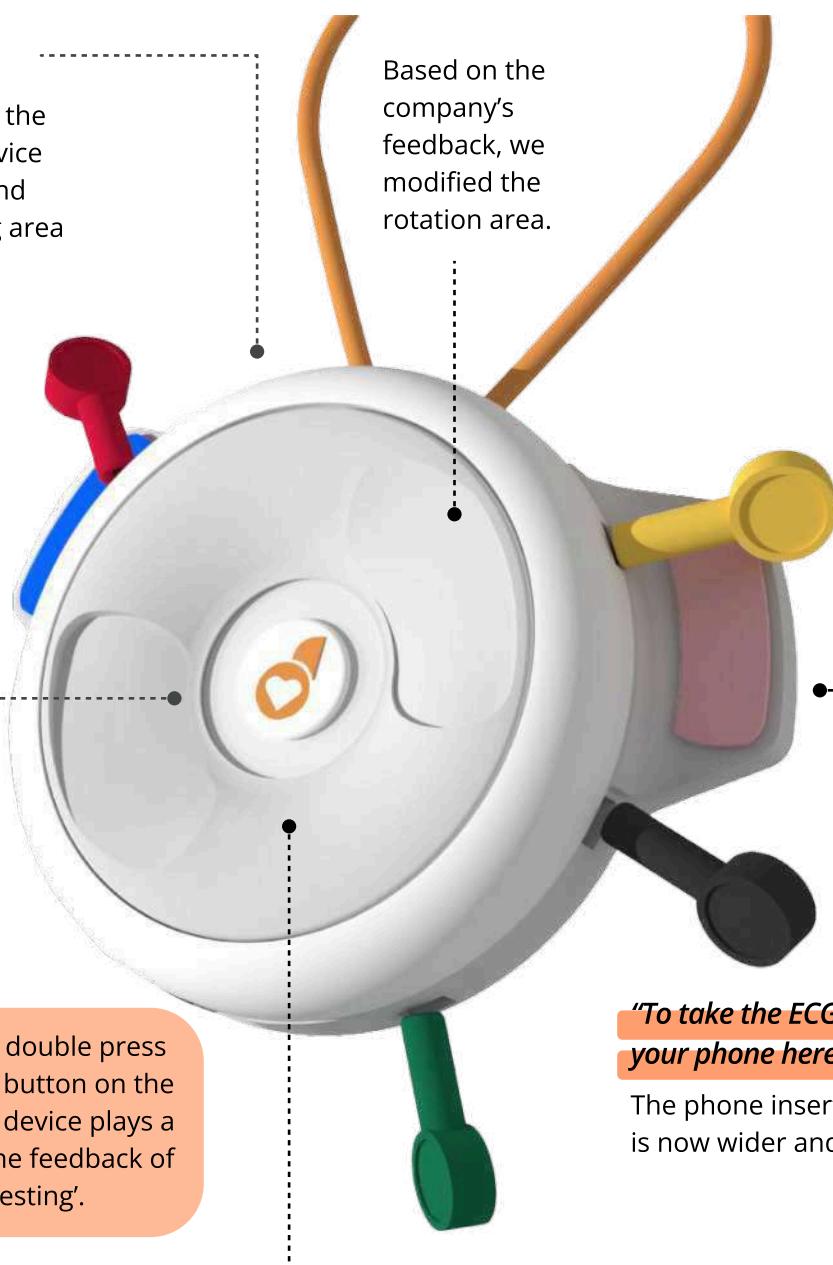
To enhance usability and user experience, we improved device status communication. We also improved the packaging by clearly labeling the phone insertion and charging areas, addressing user neglect identified during testing.

Charging area

We also smoothed the back side of the device for user comfort, and labeled its charging area



Based on the company's feedback, we modified the rotation area.

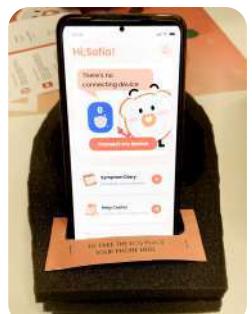


Sound

When the device is **switched on or off**, it plays a sound to provide feedback.

Enhanced device appearance

To address users **neglecting** the two electrodes, they are now colored for easier identification.



Sound

After users double press the central button on the device, the device plays a sound as the feedback of 'start ECG testing'.



Double press to 'Start Testing'

To help users prepare properly for ECG recording and **prevent distant phone interactions** that could affect test results, we introduced a double-press function.

Device Charging Status



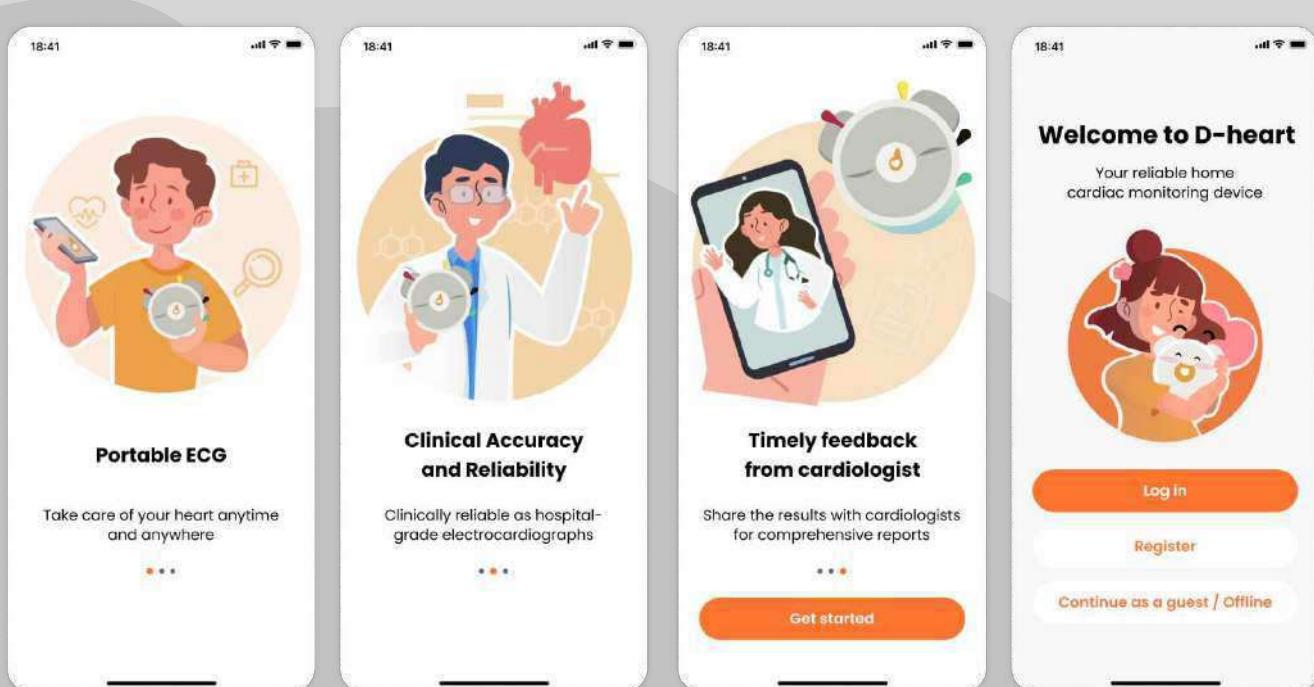
The LED ring **turns red** if the battery is below 20% and **green** if it is fully charged, when you **switch on** the device. This feature also helps users identify low battery as the cause of Bluetooth connection issues.

5.2 Onboarding

Before



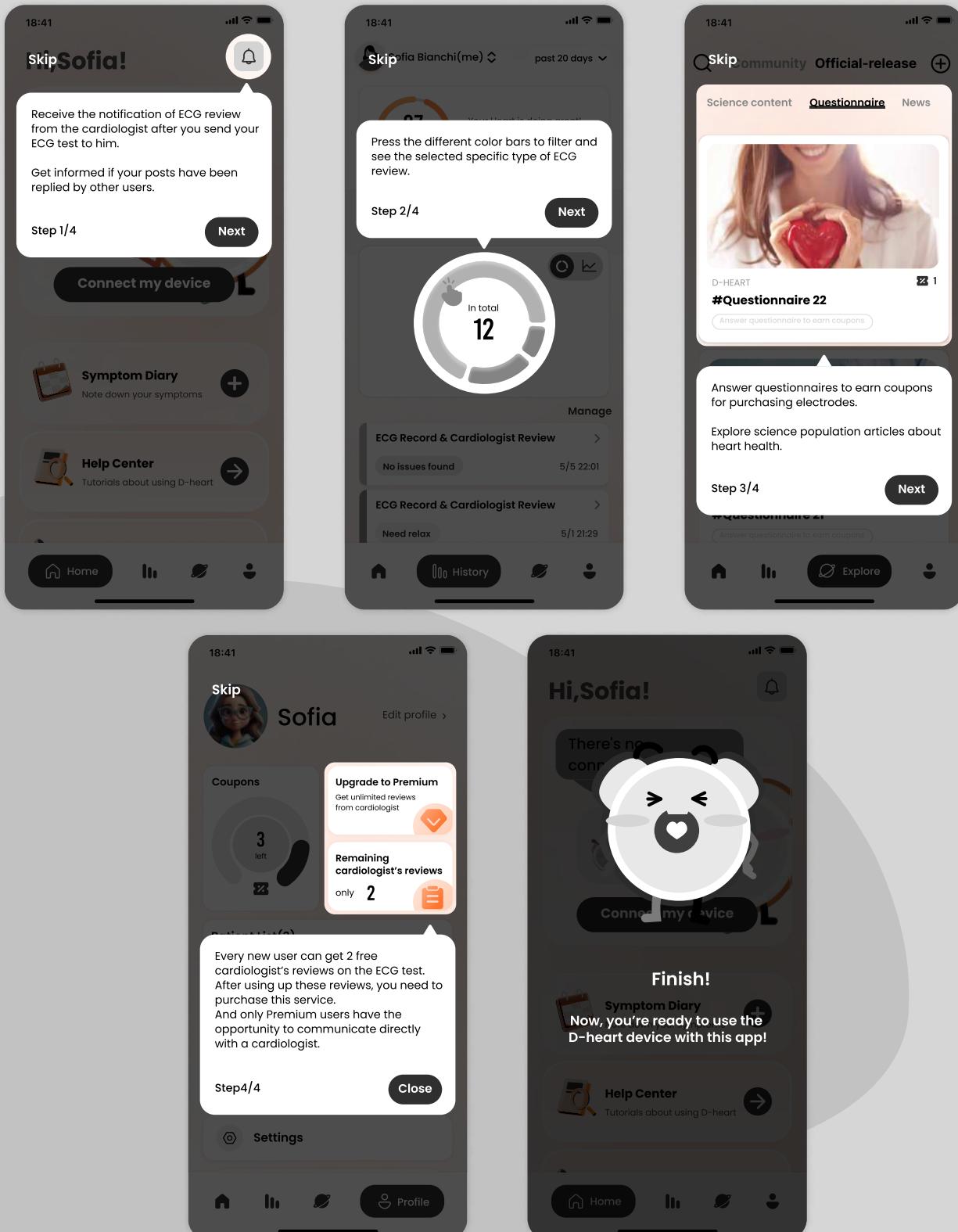
Now



Emotional design -
Use **humanized flat illustration design** to add visual interest and appeal, help capture users' attention.

5.2 Onboarding

Now



Progressive disclosure -
Use **new user guidance overlay** to help novices to be familiar with product's functionality and reduce the cognitive burden

5.3 Registration flow

Before

The original registration flow consists of three screens. The first screen asks the user to choose between being a 'STANDARD USER' or a 'HEALTH PROFESSIONAL'. The second screen is for 'STANDARD USERS', prompting for personal information such as gender, birthday, address, phone number, country, profession, and secondary email. The third screen is for 'HEALTH PROFESSIONALS', asking about their health status including height, weight, smoking, physical activity, blood pressure, diabetes, and medications.

Now

1. Progressive disclosure - Use progress bar to show the profile setup progress

The redesigned registration flow uses a progress bar to guide the user through the setup process. It starts with choosing profile usage (Standard or Professional), then selecting whom to test (Myself or Others). For 'Myself', it prompts for personal data like name, gender, and birthdate. For 'Others', it prompts for the same information for another person. Finally, it asks the user to set a password for the new patient profile.

4. Sense of control - Set password to access ECG data

Help protect patients' privacy information.

2. Emotional Design - UI illustrations

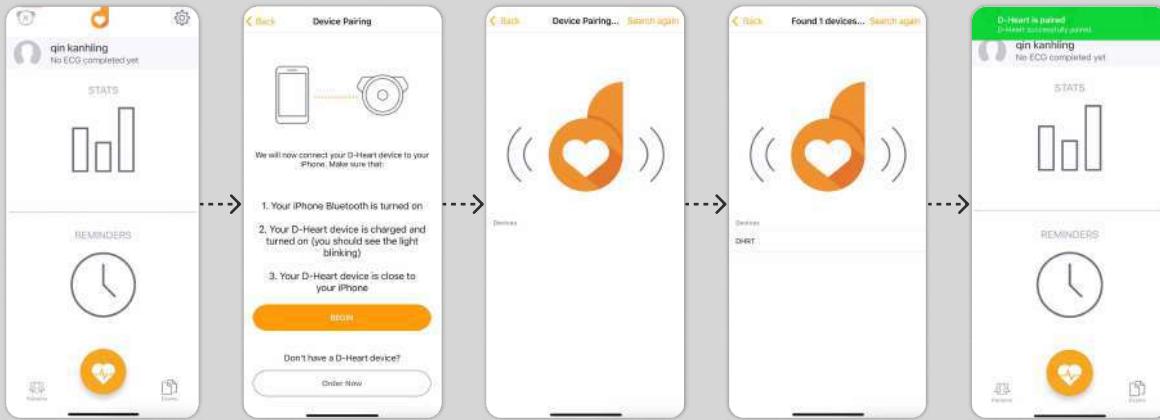
- Make the interface more intuitively understandable and visually appealing;
- Improve the overall aesthetic appeal of the application

3. Simplicity - Reduce unnecessary steps

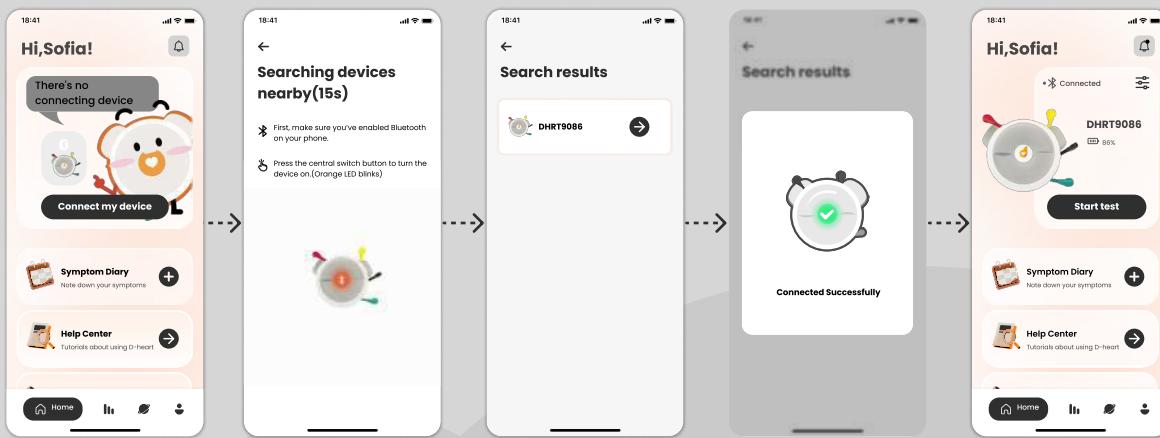
If the user chooses "Test on others", he will only fill in the personal/health data of others. (No need to fill in his own personal/health data.)

5.4 Bluetooth connection

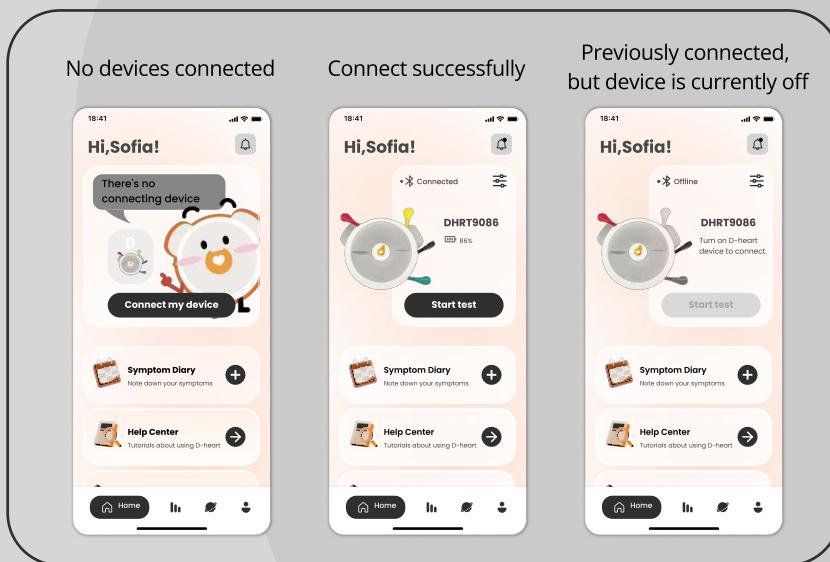
Before



Now



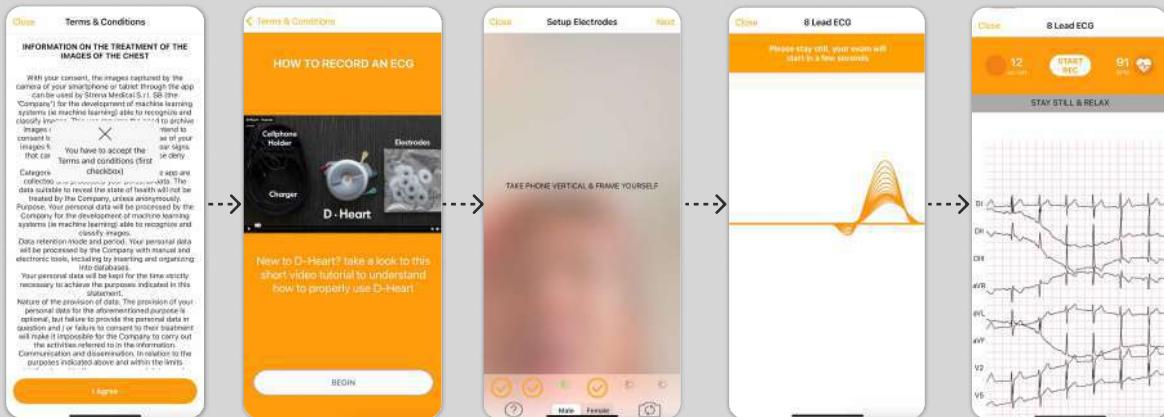
1. Sense of control - Use clear prompts to assist users to connect via Bluetooth
2. Emotional design - Animation makes the interaction more engaging and enjoyable.



3. Simplicity - Show the device pairing status separately and directly

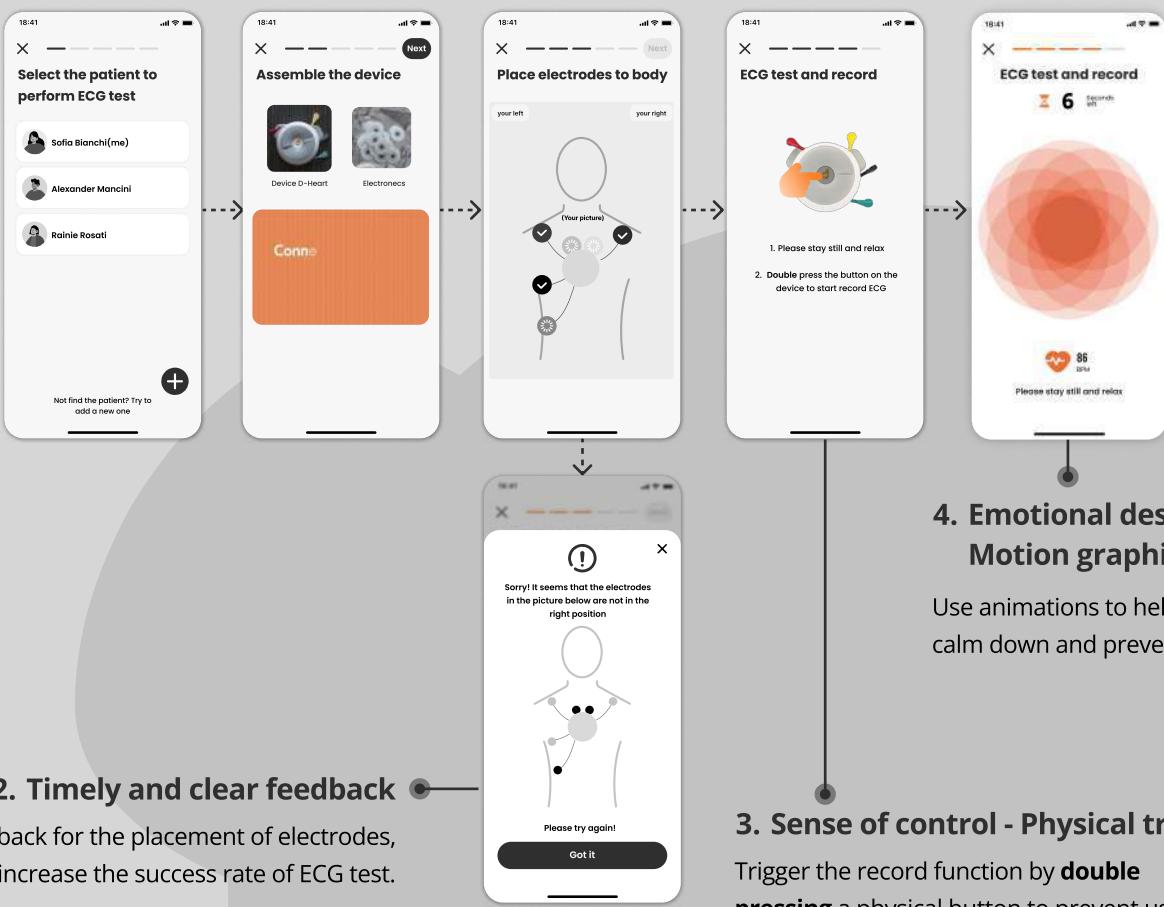
5.5 ECG test

Before



Now →

1. Progressive disclosure - Break down the testing process into separate steps with guidance and clearly indicate the current step stage



2. Timely and clear feedback

Feedback for the placement of electrodes, helping increase the success rate of ECG test.

(orange dots blink)

4. Emotional design - Motion graphic

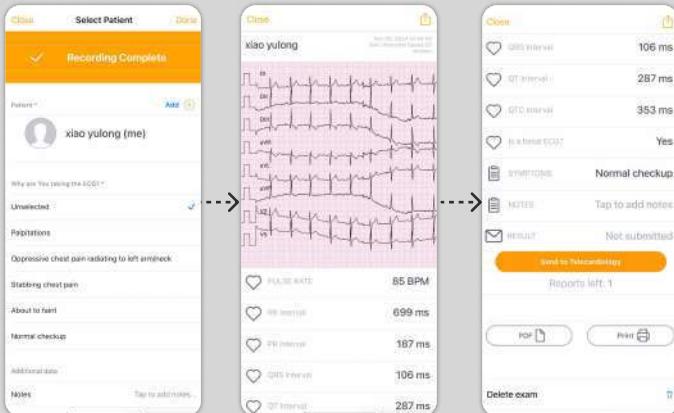
Use animations to help users calm down and prevent anxiety

3. Sense of control - Physical trigger

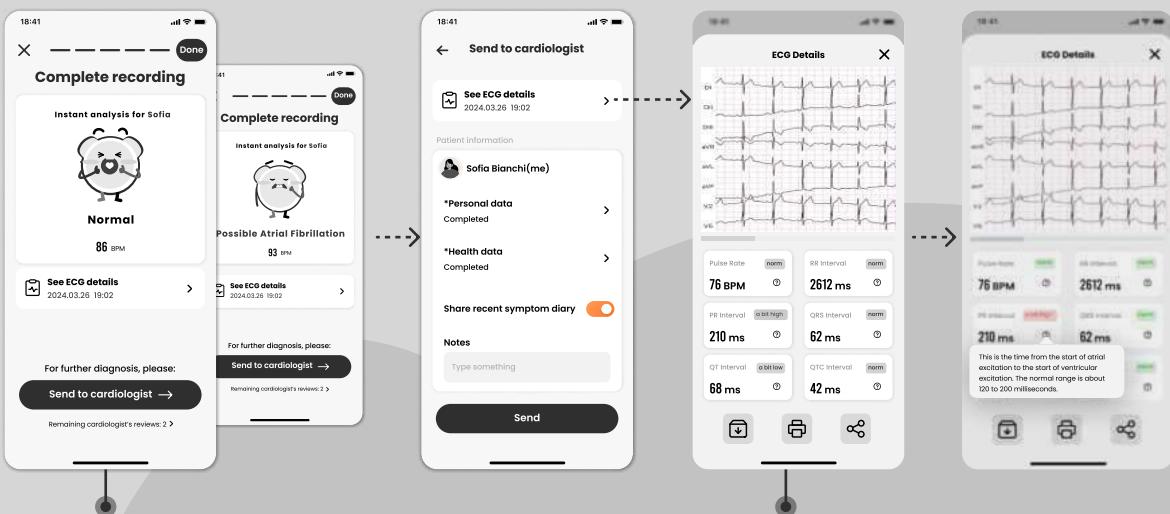
Trigger the record function by **double pressing** a physical button to prevent users from leaning forward to tap the distant phone screen, reducing body movement and helping users stay still.

5.6 Send results

Before



Now



1. Emotional Design - IP character

Evoke emotions and create a connection with users;
Convey the result of ECG test more effectively.

2. Timely and clear feedback

Provide users with immediate preliminary ECG result
feedback to reduce their anxiety and encourage their
regular detection

3. Simplicity - straightforward word

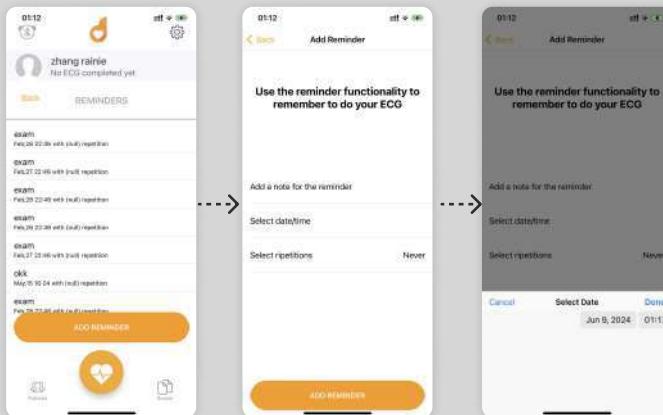
Replace "Report" with "Review" for simpler wording
that users can easily understand.

4. Simplicity - Parameter explanation

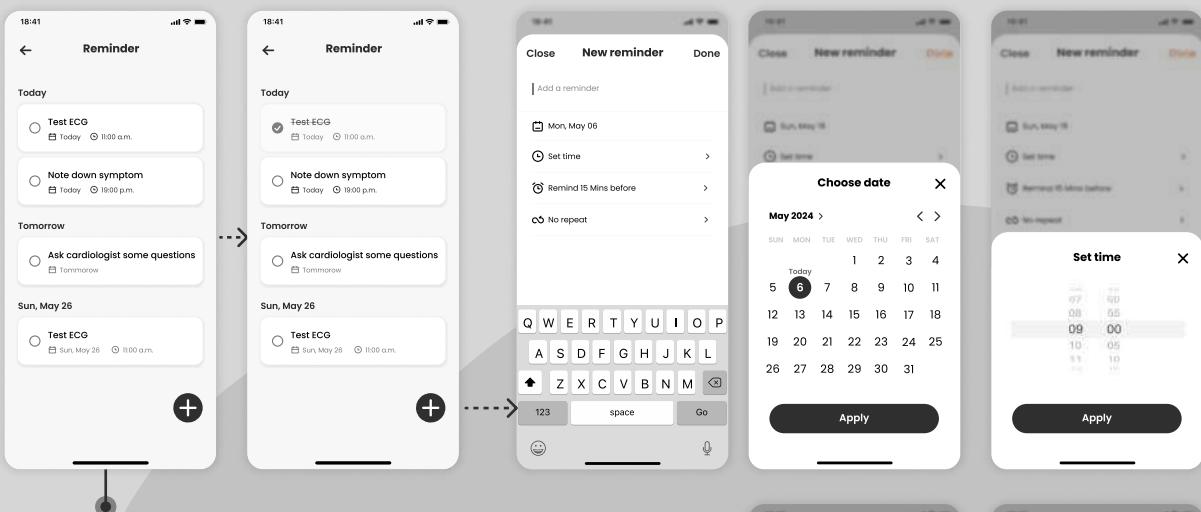
- Display the range of values to give users a preliminary understanding;
- Provide detailed explanations of the parameters to help users comprehend.

5.7 Reminder

Before



Now



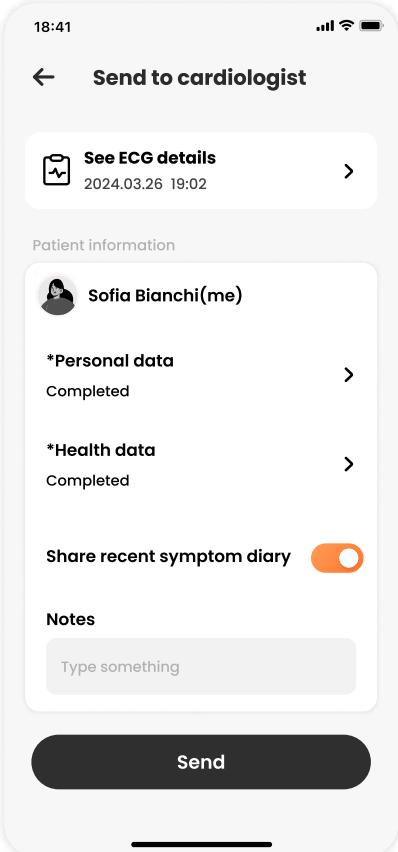
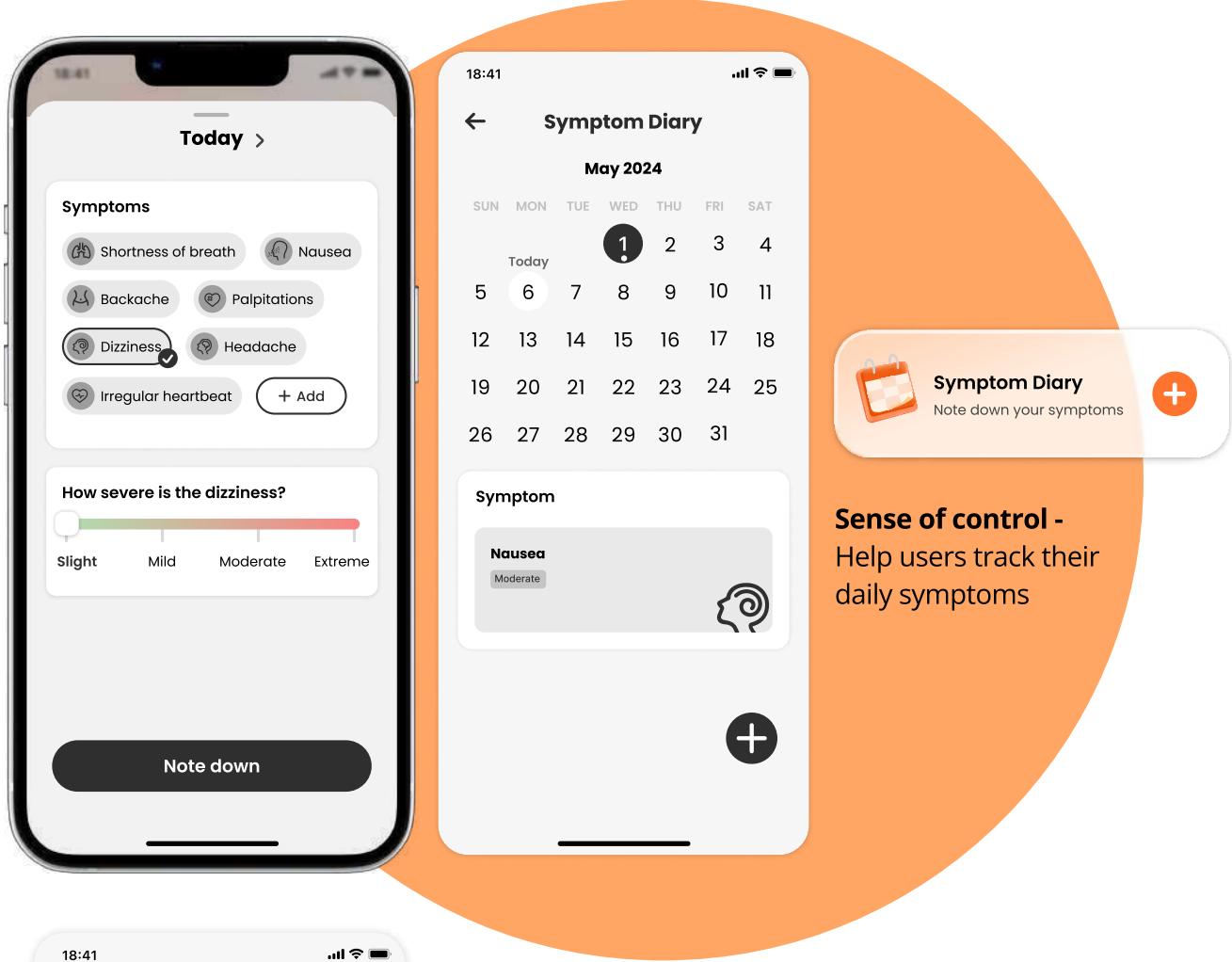
1. Simplicity - List view

Display a clear hierarchical list.

2. Timely and clear feedback

If the user completes an ECG test, the reminder will automatically be marked as completed.

5.8 Symptom diary

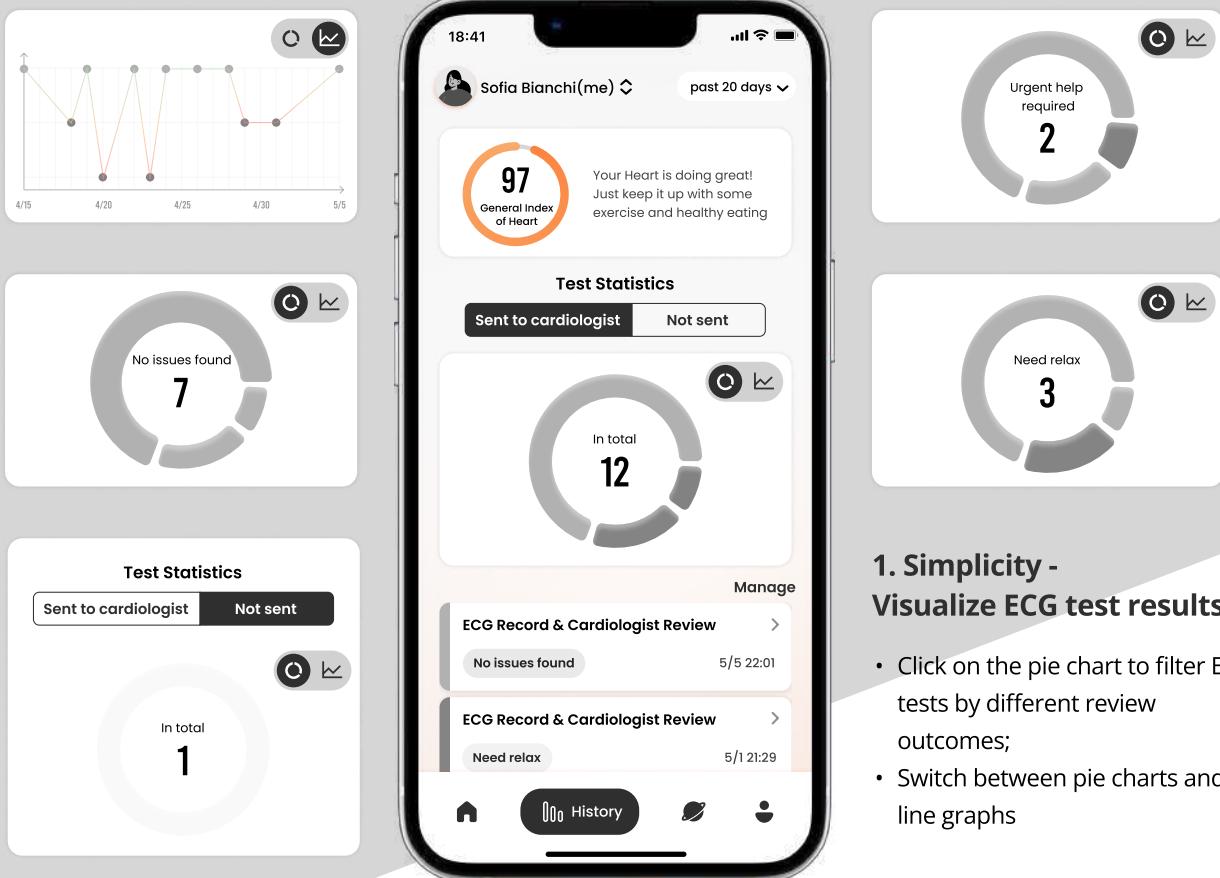


Simplicity -

When sending ECG to cardiologist, it assists cardiologist in diagnosing more accurately and effectively

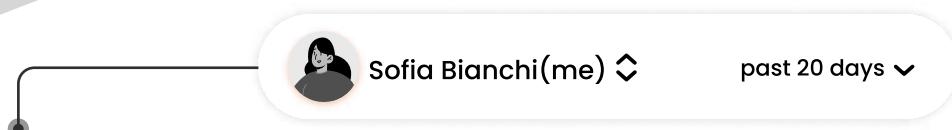
Share recent symptom diary

5.9 History



1. Simplicity - Visualize ECG test results

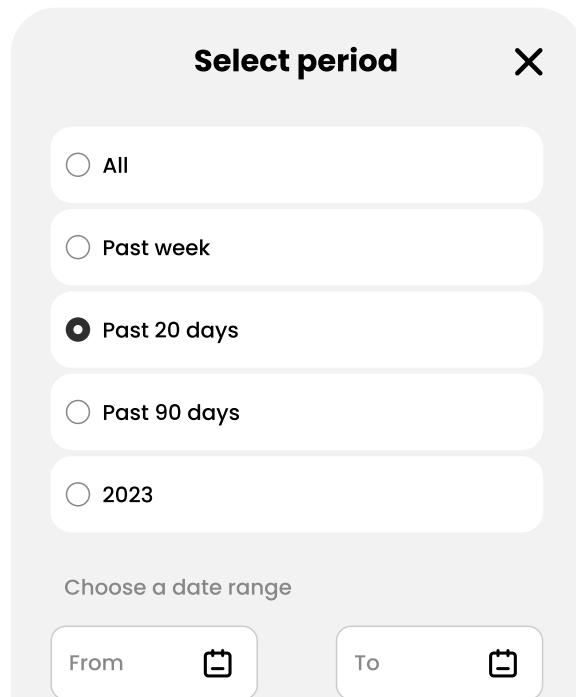
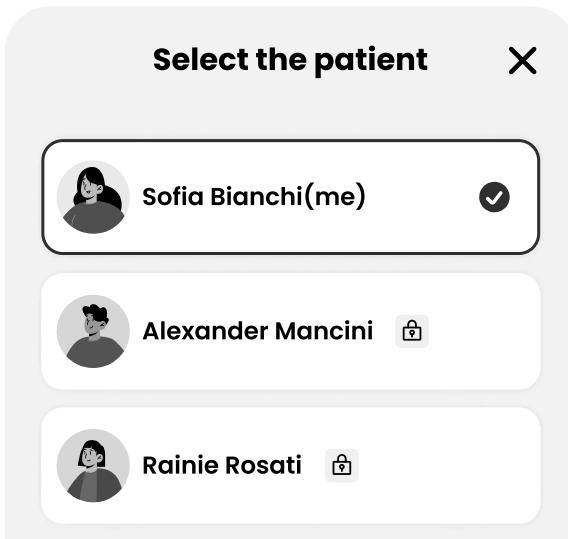
- Click on the pie chart to filter ECG tests by different review outcomes;
- Switch between pie charts and line graphs

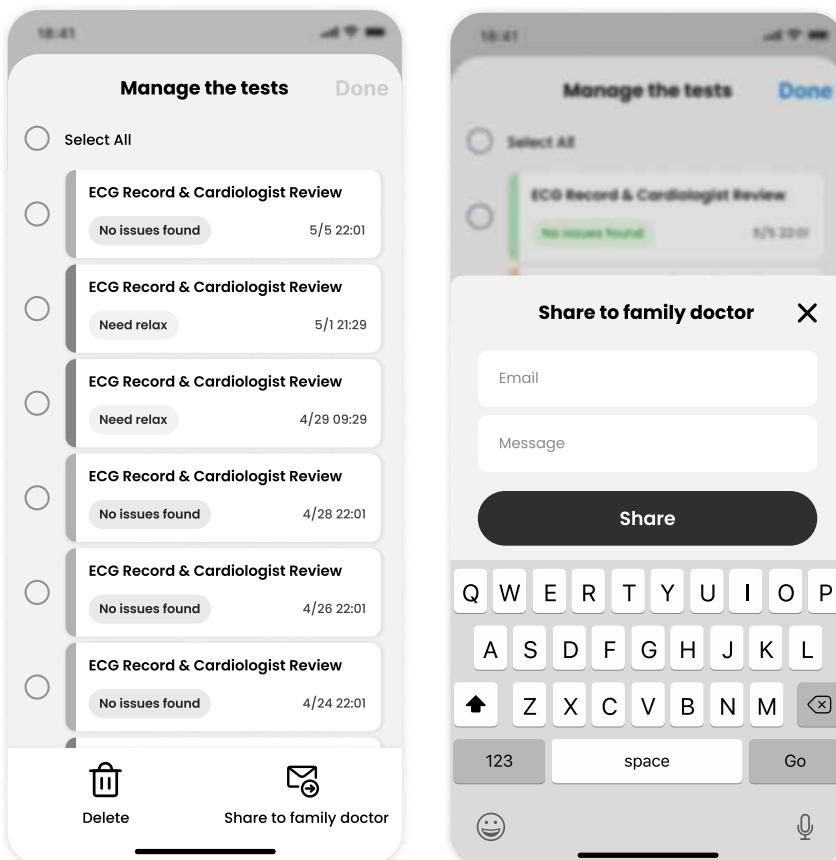


2. Sense of control - Filter

Users can filter the test data by

- Different patient (with password protection)
- Different period





3. Sense of control - Share selected tests to family doctors via Email

- Contribute to user's heart health;
- Increase user's willingness to use this software.

Test details

Sofia Bianchi(me)

Record of ECG
2024.04.26 19:02

❤️ 76 BPM Normal

Record of ECG
2024.04.26 19:02

❤️ 76 BPM Possible Atrial Fibrillation

Record of ECG
2024.04.26 19:02

Reported by DR. GIOVANNI RAMUNNI
Need relax
Result:
ECG recording within limits: it's not required any action at the moment
Suggestion:
Have to relax yourself.
Urgent help required
Result:
ECG recording within limits: it's not required any action at the moment
Suggestion:
Please take care.

Cardiologist's Review

Reported by DR. GIOVANNI RAMUNNI

Reported by DR. GIOVANNI RAMUNNI

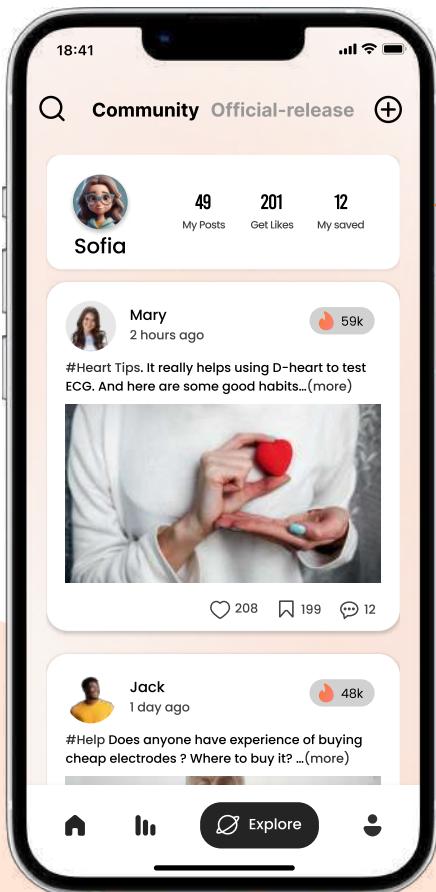
Reported by DR. GIOVANNI RAMUNNI

Delete this test

4. Simplicity -

Include the cardiologist's reviews of each ECG test in the test details for users to access easily.

5.10 Explore



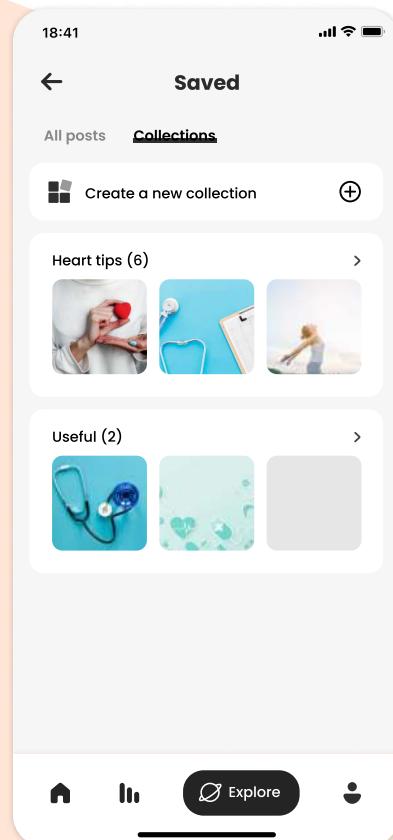
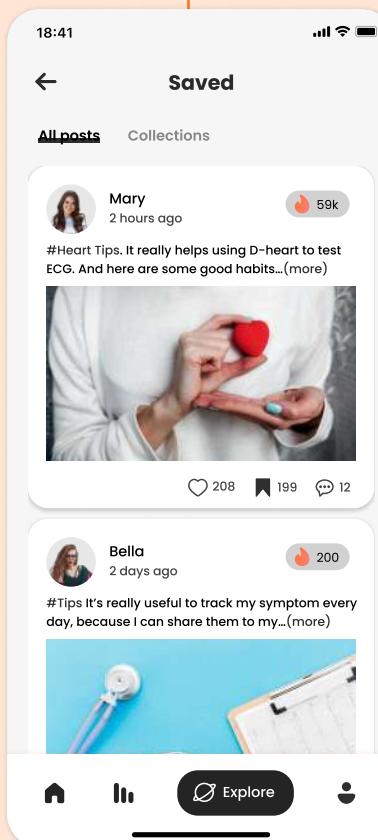
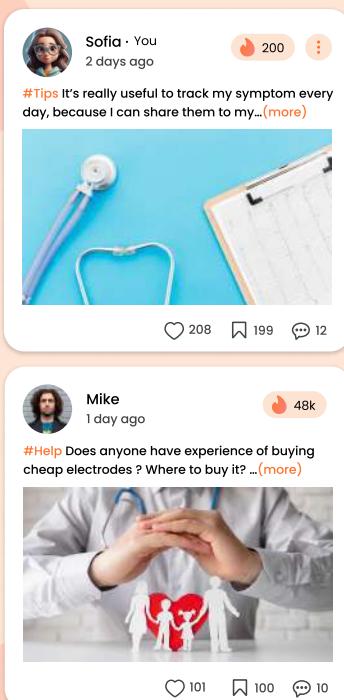
5.10.1 Explore - community

1. Inclusivity and communication - Facilitate communication and interaction among users

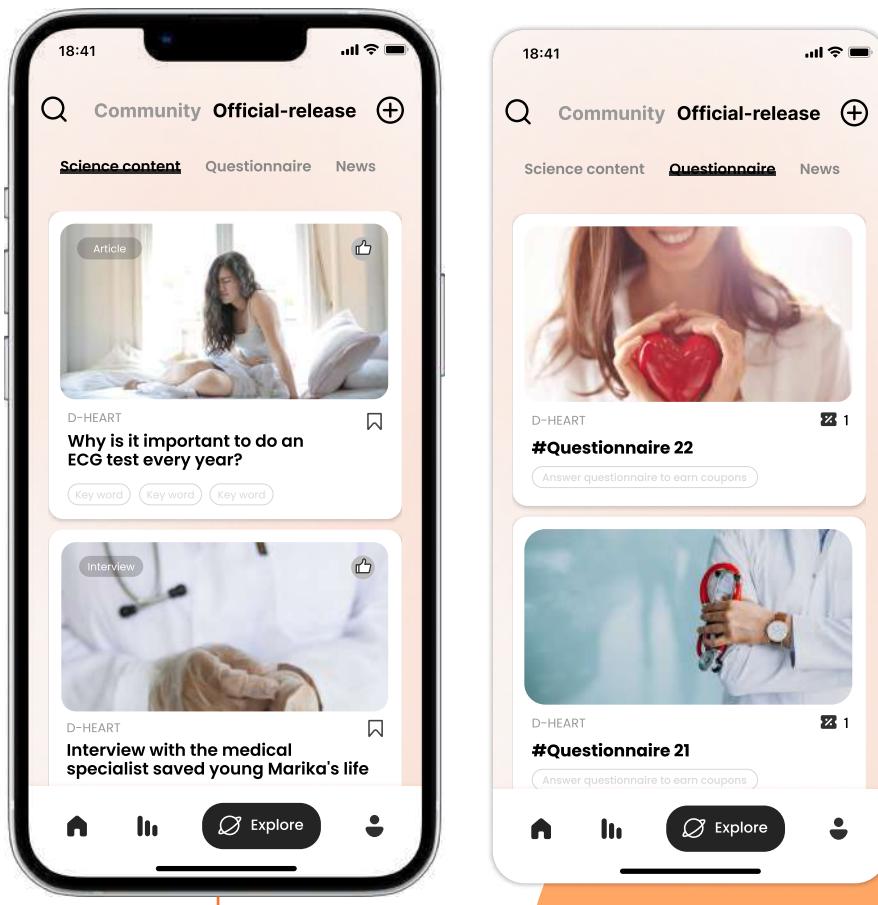
Meet users' needs to share their own ECG experience and learn from the experience of others.

2. Sense of control - Manage saved posts

- Users can save and organize useful posts into collections.
- Users can create their personalized collections.



5.10.2 Explore - Official release

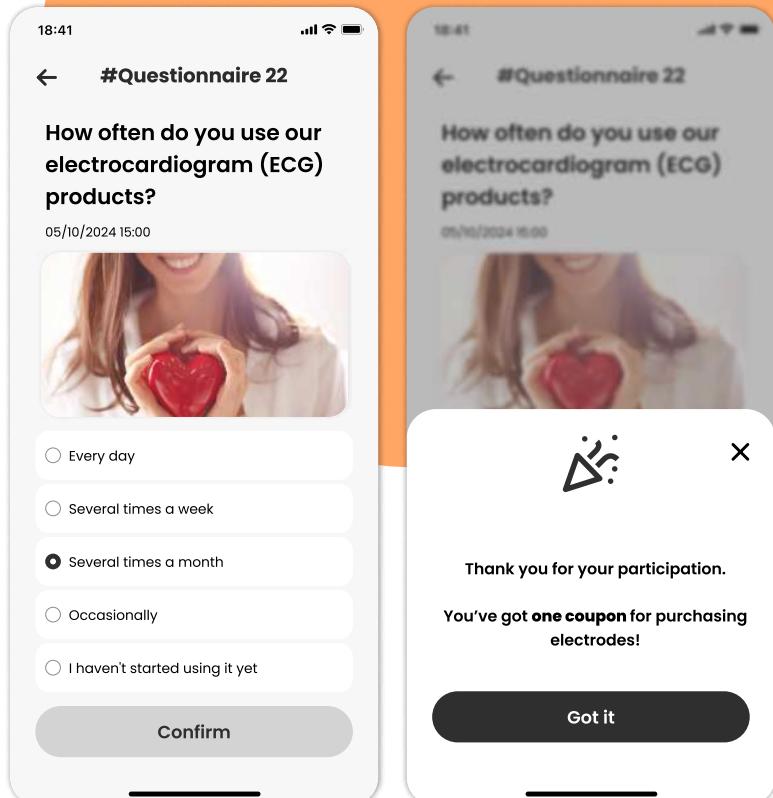


1. Inclusivity and communication - Facilitate communication between company and users

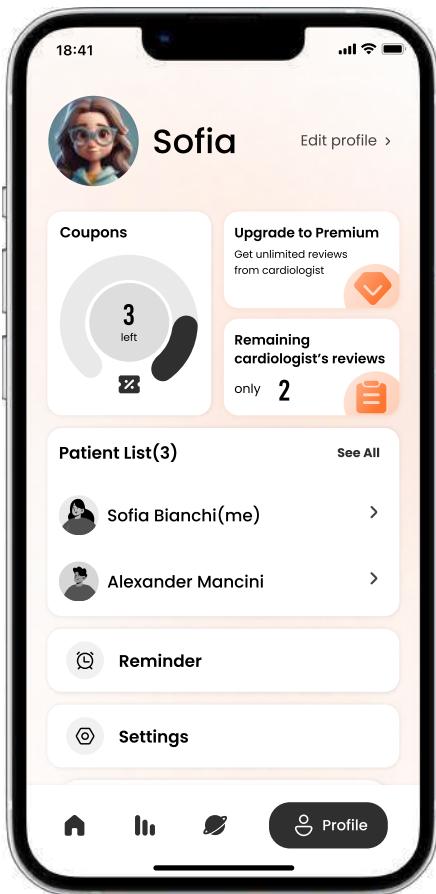
Users can access expert knowledge in the 'Science content'

2. Engagement - Incentivize participation

- Company can gather user information through questionnaires;
- Users are encouraged to answer the questionnaire, as they can get a coupon.



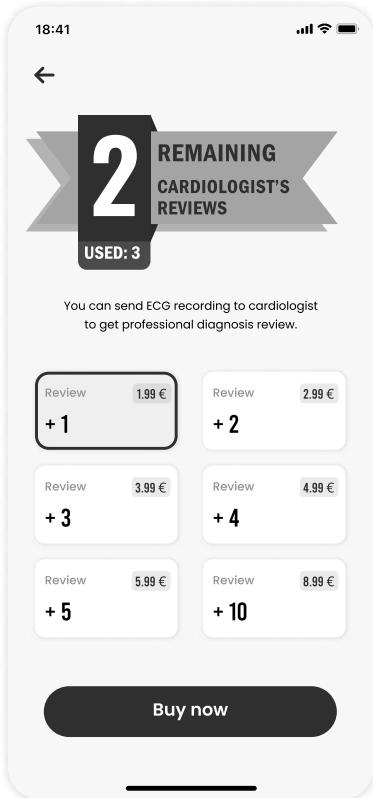
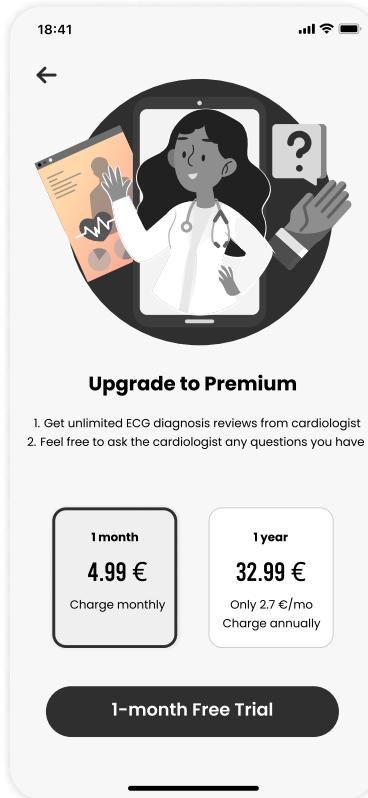
5.11 Premium, Purchase reviews & Coupons



1. Simplicity

- Users have access to ECG cardiologist's reviews at more affordable prices and options.

- Give users the freedom to choose between membership or just review's purchase.



2. Engagement - Coupons

Users can earn coupons by answering questionnaires published by D-heart, which can be used to purchase electrodes or cardiologist's reviews at a discounted price.

APPENDICES

Appendix A - Information Architecture (1st version)

[Link](#)

Appendix B - Information Architecture (last version)

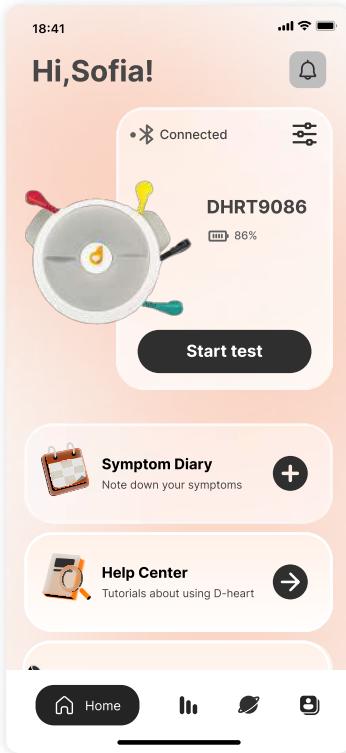
[Link](#)

Appendix C - Tree testing tasks

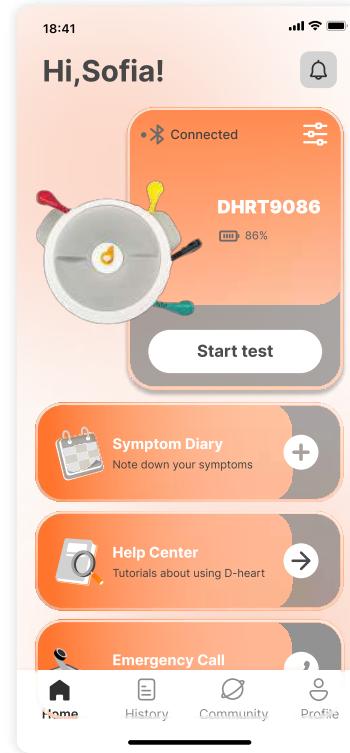
1. You've just purchased D-heart and want to conduct an ECG test. Please connect the D-heart product via Bluetooth before start the test.
2. After completing ECG test and sending the record to the doctor, you will receive a report with the feedback, Where you can view the previous report.
3. You have performed some tests and received some reports from the doctor, where to see the final data analysis of all the reports.
4. As a new user, you still don't quite understand how to use D-heart. You want to check the tutorial.
5. You always forget to take an ECG test every week. Therefore, you want to set a reminder for yourself using the app's reminder function.
6. The patient notices heartbeat abnormalities during the day or while performing exercise and proceeds to note their situation or symptoms within the app.
7. You have to perform ECG test on your mother, please create a patient profile for her.
8. You want to check the ECG test you took on this day last month. Where can you view it?
9. Your health information has changed, so you need to update your health data in the app.
10. You have received 3 free feedback reports from the doctor. To continue receiving reports, you will need to purchase more ones.

Appendix D - Mockups for 5-second test

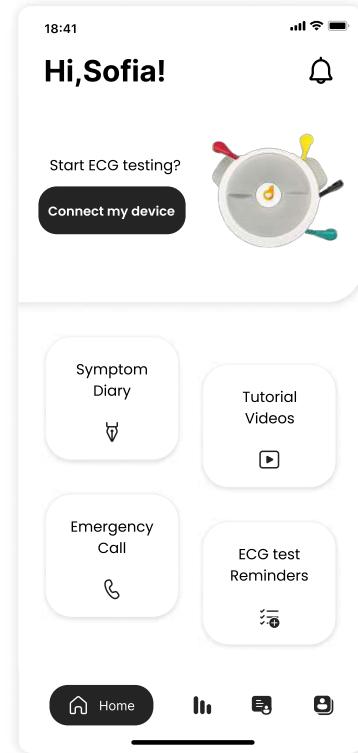
[1]



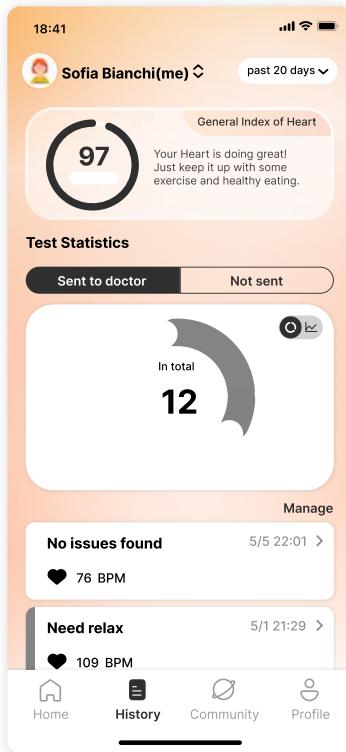
[2]



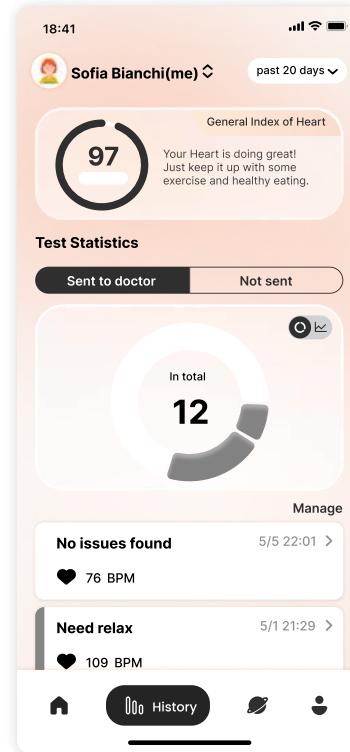
[3]



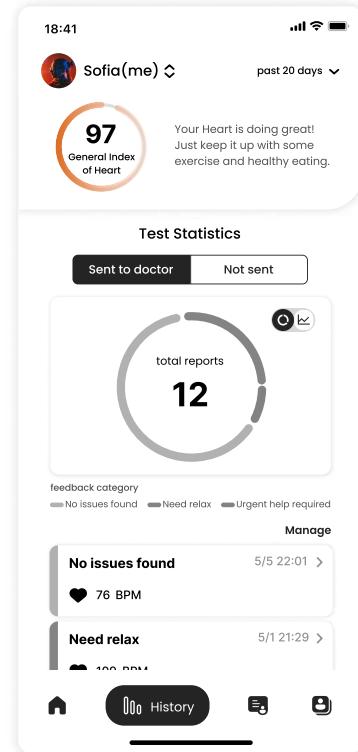
[1]



[2]

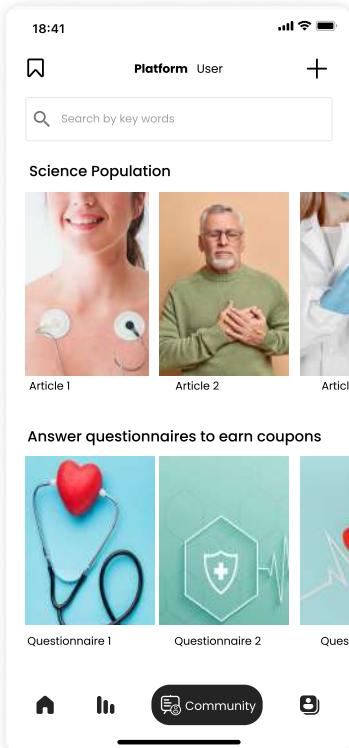


[3]

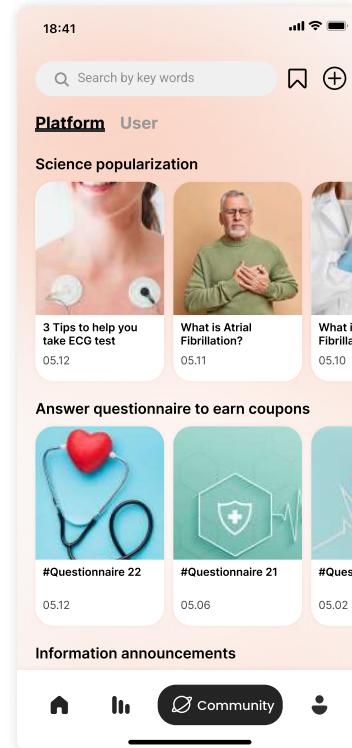


Appendix D - Mockups for 5-second test

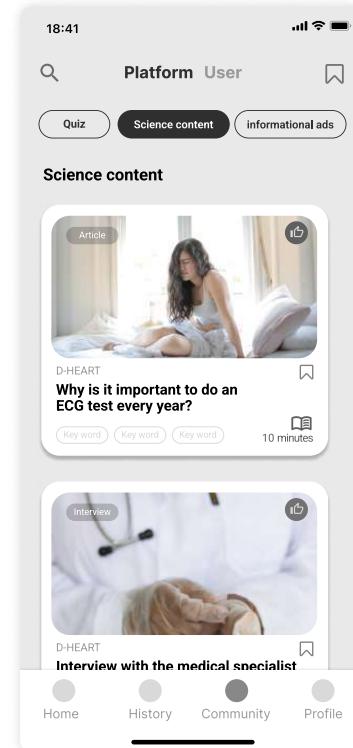
[1]



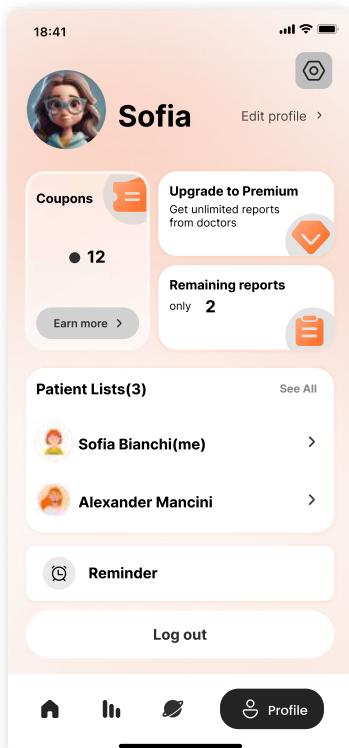
[2]



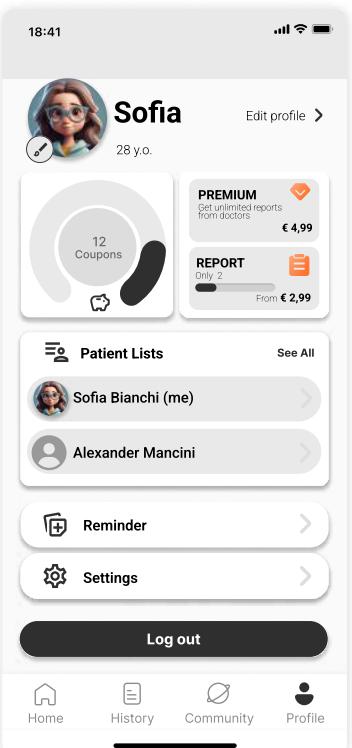
[3]



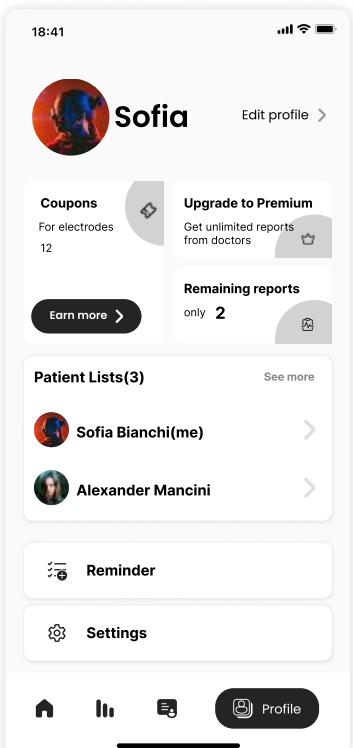
[1]



[2]

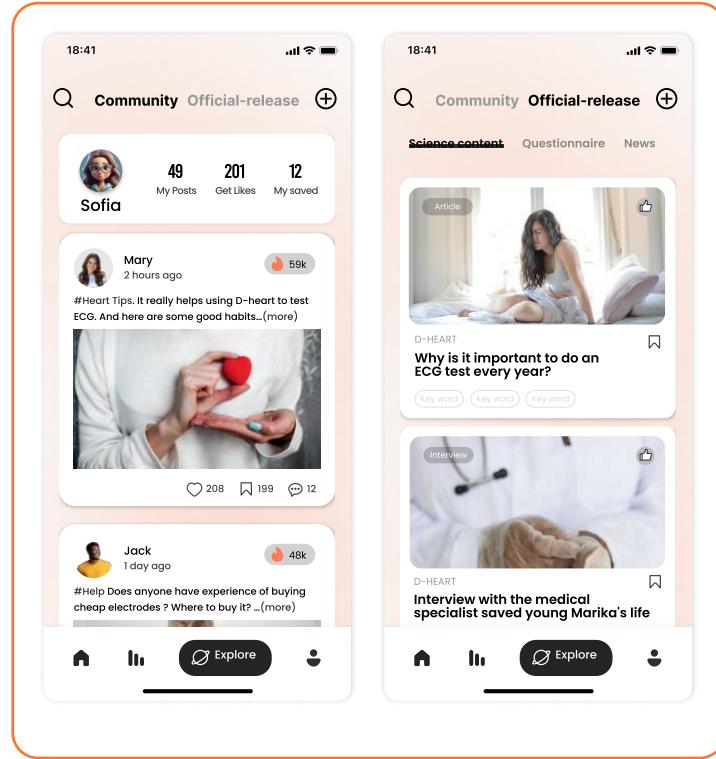


[3]

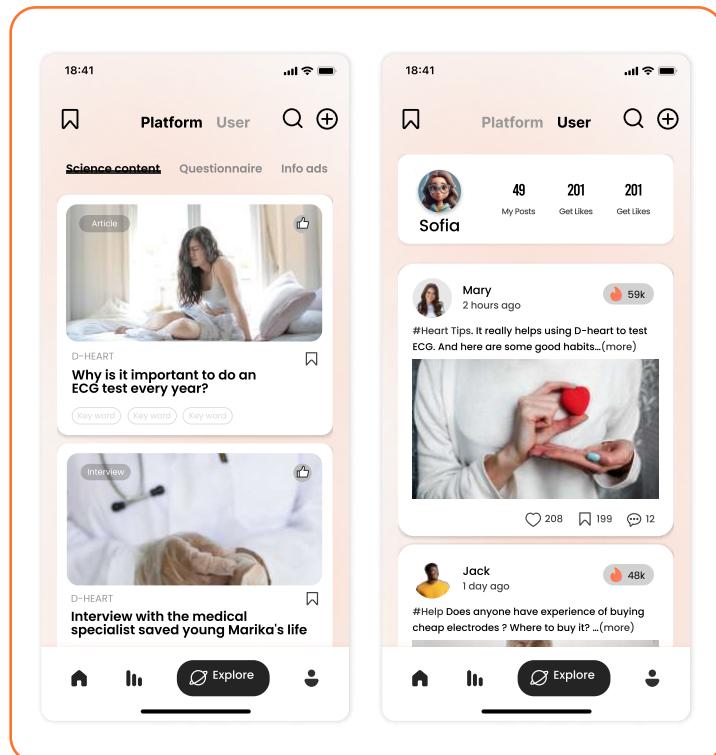


Appendix E - A/B test for “The layout and naming of community”

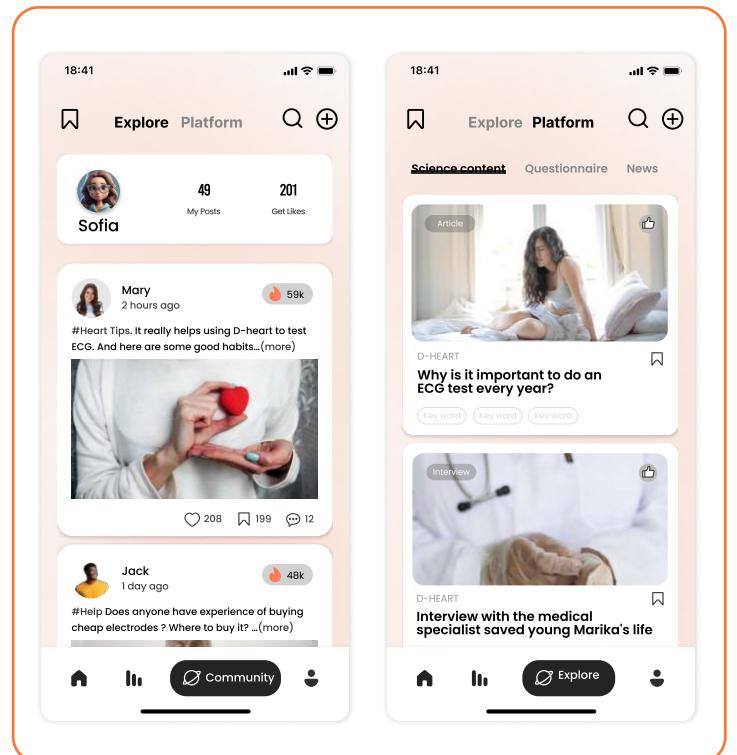
[1]



[2]



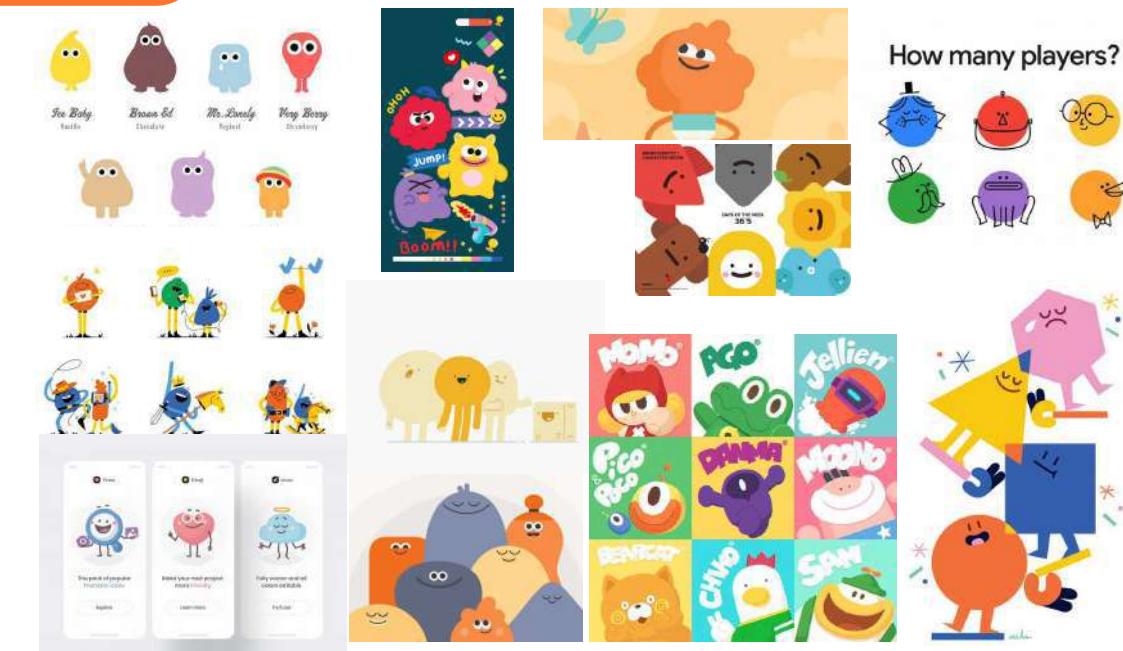
[3]



Appendix F - A/B test for the style of interface illustration design

We used 4 moodboards to ask users about their preference and the reason.

Moodboard 1



Moodboard 2



Appendix F - A/B test for the style of interface illustration design

We used 4 moodboards to ask users about their preference and the reason.

Moodboard 3

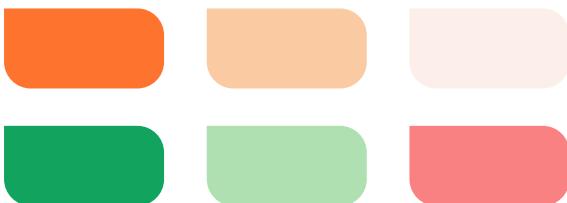


Moodboard 4



Appendix G - Design system

▪ Colour



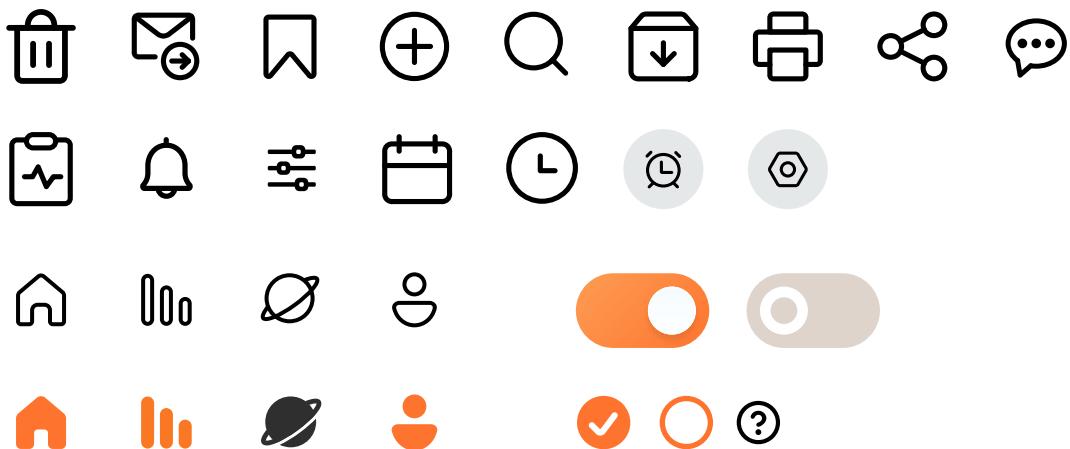
▪ Fonts

Poppins

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u v w x y z
0 1 2 3 4 5 6 7 8 9 ! ? ()

12px/18px/21px/24px/28px

▪ Icons



Appendix G - Design system

▪ Components

Register

Username: Sofia

Pulse Rate: 76 BPM (norm) PR Interval: 210 ms (a bit high)

Review + 1: 1.99 €

Review + 3: 3.99 €

1 month: 4.99 €
Charge monthly

1 year: 32.99 €
Only 2.7 €/mo
Charge annually

Record of ECG
2024.04.26 19:02 See Detail >

Heart rate: 76 BPM Status: Normal

Symptom Diary
Note down your symptoms

Help Center
Tutorials about using D-heart

Emergency Call
Call your emergency contact

ECG Record & Cardiologist Review
No issues found 5/5 22:01

See ECG details 2024.03.26 19:02

DHRT9086

Sofia Bianchi(me)

Device Name DHRT9086

Cardiologist [New report] 1 2 minutes ago

Alexander commented your post 3w

Interface and Display

Note down symptom Today 19:00 p.m.

Appendix G - Design system

▪ Illustrations

