Masimo Watch W1

Healthcare   Mobile   Watch

Watch

App

Processes

2020	Research
12. 2020	**Analysis**
12. 2020	**Design - Concepts**
12. 2020	**User Flow**
01. 2021	**Design - Mid Fidelity**
03. 2021	**Prototype**
03. 2021	Testing
04. 2021	**Design - High Fidelity**
now	Developing

Team

3 UX Researchers

2 Project Managers

1 UX Sr Director   **1 Design Manager**

2 UX Designers   **3 Industrial Designers**

5-6 Engineers

4-5 Marketing

Problem

How to intrigue target users and standout from the strong competitors

How can we stand out?

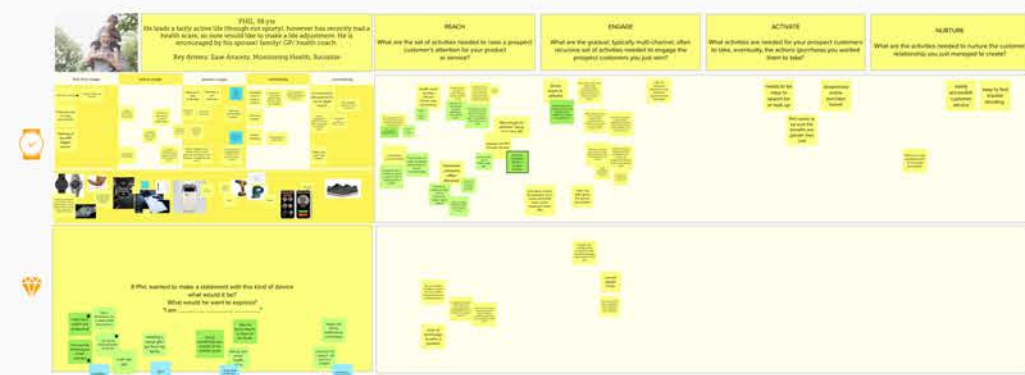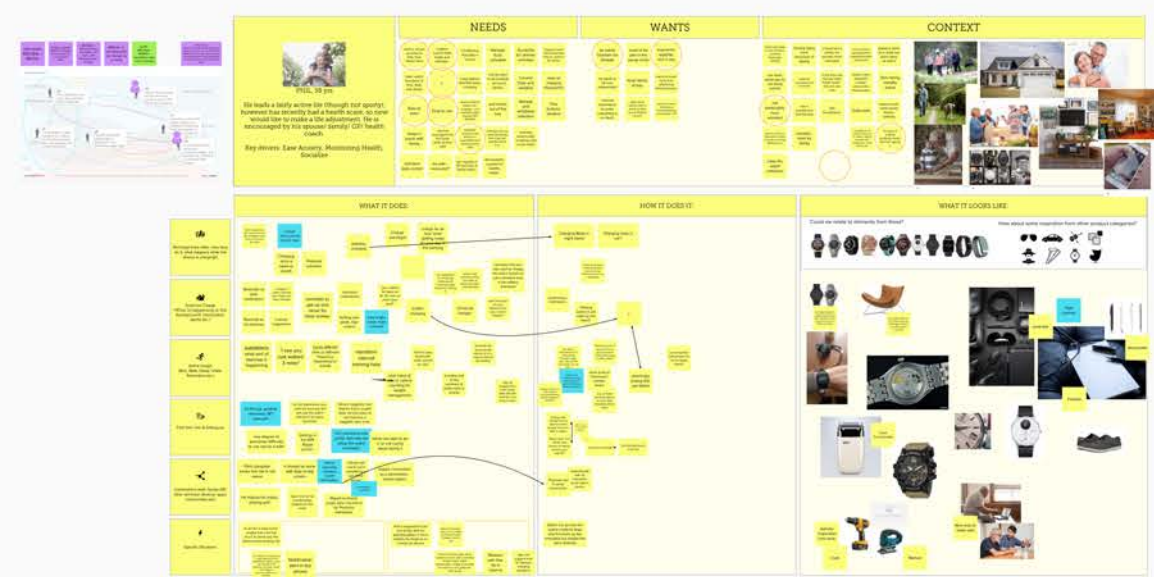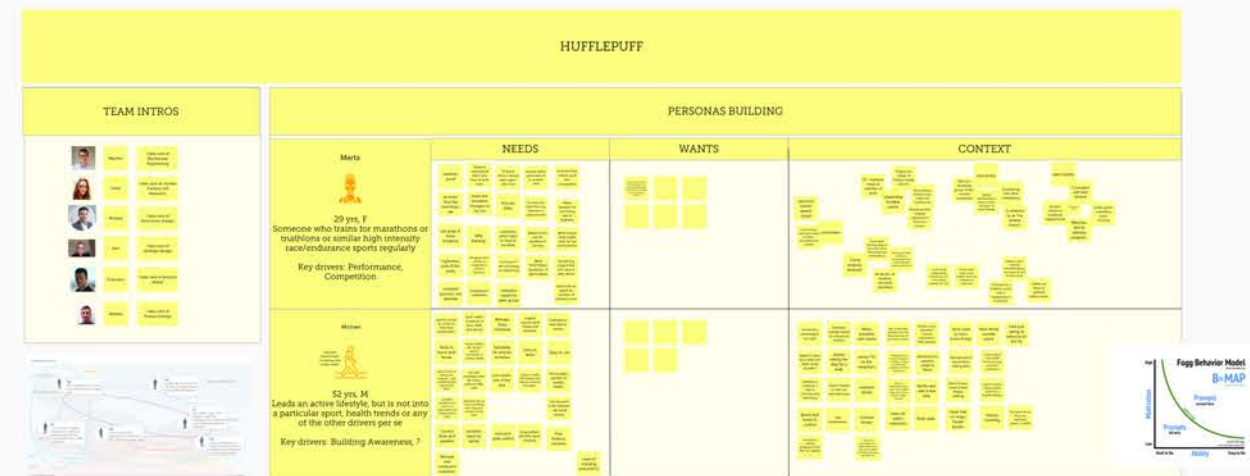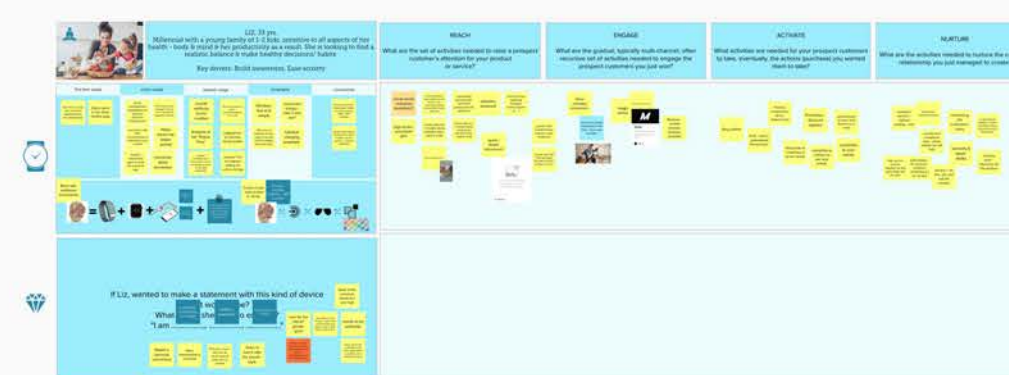|	Motive for owning	Setup & Pairing	Wakeup and use frequency	Physical activities	Other data tracked	Sleep tracking	Sharing	Charging	Watch features & other uses	External apps	Dedicated mobile app	Importance of data security	Importance of measurement accuracy
P1 — Apple Watch 6, Female, 27, 2 months	• Durability • **Past negative experience with Fitbits falling apart** • Measurement capability - O2, heart rate, ECG • Used Apple points • Integration with other devices • Watch design	• Setup notifications • Limit notifications • **Pairing issue ambiguous (wouldn't connect)**	• Haptic alarm wakes her up • Welcome message greets her • Sees time, weather, and remaining battery • Upcoming appointments • Wears all day, other than shower • Looks at watch more than phone now	• Goals: - 45 min exercise daily • Pilates - **Wishes more distinction between different types** • Tracks activity, sets, exercise minutes, distance, flights of stairs • Heart Rate - use to increase/decrease workout intensity • Walking • **GPS tracking, watch shows pace as red, yellow, green and she picks up.**	• Standing activity • Heart arrhythmia • Steps • O2, periodic auto collect doesn't look at it frequently or use, "fun to see it" • Activity info for workout • Uses rings feature for tracking	• Wears when sleeping • Sleep app • Had issues with headaches, initially used sleep app for this • "cohesive with alarms and sleep schedule" - sends bedtime reminders	• Doctor - shared in person, screen, general activity levels, O2, minutes of exercise a day • Friend -Ring data, activity notifications	• Average once a day • During morning or shower • When static, at desk • Lasts a day and a quarter	• Timer - cooking, self care routines • News • Work & phone notifications • Maps • Apple Pay • Digital assistant Siri • Separate Cellular/wifi	• **Zombies, Run! App** - Likes the motivation it gives	• Apple health app to share health with doctor	• Not concerned with data privacy more than usual - not sure what people would do with health record • Uses airplane mode	• Expects accuracy, but not perfection (80% correct)
P2 — Garmin Vivoactive, Male, 30, 9 months	• Upgrade previous device • On sale • Wanted GPS feature for runs • Good reviews • Fan of brand, customer service • Durability of devices	• No connection issues • Measurement info requested during setup, could skip but no issue entering	• Wakes up with separate phone based alarm • Wears watch all day • Completely satisfied, if broke would get another	• Goals: - PreCovid: 5/10k marathon - Current: to stay in shape • Running - meet a certain distance a week • **GPS location, mapping path, distance, uploading to Strava, "why I have the watch"** • Cycling • Strength train - bodyweight, kettlebell • Water resistance important, sweating	• Daily steps • Heart rate • **GPS not good when cloudy, or certain times doesn't work** • Stationary notification - gets up if alerted • During run, looks at pace to modify his speed to meet goal • Elevation	• Initially wore watch during sleep for sleep tracking • Doesn't use sleep tracking now • "maybe I don't understand it", doesn't know what to do with info • If I take off watch its for sleep	• Strava activity, run distance - can receive "kudos" from others - run areas can become competitive, with leaderboards - Choose to share to followers, passively shares through app when collected - run time/distance, path	• Average once a day • During showers • From 20-80% in 15 minutes • **Charging battery "a little annoying" "GPS drains battery, other watch charged once a week"** - wont use GPS if battery low • One day full use is acceptable, **2 days would be ideal** • **Standardize charge port**	• **Phone notifications** - reads, doesn't respond on watch but likes he can • Stop watch/timer - activities requiring a certain time limit to do - time management, clean • **Customizable watch face, bands** • No speaker = not important • **Song switching mid run** • Design of watch important • Durability important	• **Strava** - motivates to be active - Follows athletes, friends - Seeing their activity - On phone • **Swift** - indoor cycling - motivates like game, has avatar - $10 a month • Apps are like "social media" sites • Nike training app, - Routine/workout info - not connected to watch	• Garmin Connect - infrequent use - For setup, add watch face- to track run stats, distance per heart rate average - uses strava/swift more • Expects to see: - summary of current day activity, or previous day - proximity to daily goals • Overall uses strava, data he wants to see is in this app - uses Strava over Garmin for social media	• Important for banking info, passwords • Ok sharing activity locations, not too personal • Doesn't mind that being shared • Ok with info collected if it improves watch	• Doesn't have to be exact • Expects close, hopefully fairly accurate • Doesn't need exact measurements • "I'm not a professional athlete" • Likes reliability, no glitches
P2 — Apple Watch 6, Female, 46, 4 months	• Missed previously returned Apple Watch 3 - returned due to cost - felt she was wearing "another phone" • Wanted O2 awareness (thinks had covid in March) • Owned a Misfit device, lost it	• Unboxing was great, packaging pleasing • Starting up and syncing product was easy • Feels it was a streamlined process • **Wishes she managed what apps carried into it better during setup** - currently overwhelmed by apps	• Haptic alarm wakes her up, but stays in bed until phone alarm - doesn't mind it • Usually wears all day, during night • **Feels like shes "in the apple club"**	• Outdoor cycling • Elliptical • Core, free weight training • Yoga, pilates • Circuit training • Walking • Plans water activity, expects water resistance	• HR - looks during eliptical and burpees, lower activity if too high • Not sure what rings are about • Calories • O2 - doesn't check a lot, but would go to hospital if alerted • **Wants better diet tracking in watch, but she may be unaware of ability to do so**	• Doesn't do this • Tried, but doesn't use the data	• Lose it and Pelaton apps will passively share data • Doesn't look at shared data • Not sure what to share or why	• Once a day • During showers • Only takes 15-20 minutes to charge • Satisfied with charging	• **So many apps, confusing, limits use of watch** • **Breathing exercise reminder is annoying** • **Standup notification annoying, watch can't tell she was active earlier** • Favorite: seeing the time • Likes controlling next song playing on external speaker • Connection to other apple devices • Social media, weather, notifications • Watch design	• Weight watchers - enter foods into a point system • Expects to see HR, O2, steps, history • Looks at calorie circle, but uses other apps more - wishes it had fitness program, workout vids, like weight watchers - wishes app tracked foods • Lose It App, meal tracking - can't figure out if she can get app on watch itself	• Apple watch app • Didn't like the multiple apps required by apple • Looks at it whenever she wants to see stats	• Worries about data security, but doesn't do much to secure it herself • Banking info is most important to secure • More concerned about phone security than watch • Not concerned with fitness or health info	• Expects accuracy, on previous Misfit it would incorrectly input
P2 — Fitbit Blaze, Female, 23, 2 years	• Used device from ebay • Price important, doesn't want to pay more than $100 • Mother had two Fitbit Versas • Owned series 1 apple watch but wasn't fitness focused - all she cares about is steps • Watched videos on youtube	• Easy setup • Had a previous fitbit account where tracking was from phone • Just chose to add watch from app • Both apple watch and fitbit pairing processes were "simple and to the point"	• Wears for walking but not to sleep • Only wears during day	• Main watch purpose is the tracking step count - 3-4 times a week - 3-4 miles a hike - Not sure how far shes going without this tracking • Did crossfit but no use of fitbit • Watch not water resistant	• HR - stopped looking at it because she didn't know what to do with it being high	• Doesn't track sleep anymore • Doesn't wear to sleep • Used it to track deepness of sleep when having headaches - haven't since pandemic - didn't know what to do with info	• Liked fooducate's community of people sharing what they are eating • Favorite thing: fitbit phone app share-able challenges - old coworkers or friends would challenge each other to meet similar fitness goal	• Once every 4 days • Charges at night	• Tracked period, doesn't have it loaded currently • For camping • **Didn't like apple watch telling her to speed up, she only cares about steps** • Wants watch to look like a watch • Text message notifications • **Wishes she could log food into watch** • **Would be nice to have more watch face options, currently just black and white screen**	• Uses fooducate, but it asks for a lot of detail • **Doesn't like Fitbit's manual food/calorie tracking** • Wants to be specific with what shes eating, but not all the detailed info (just calories) • Likes that the fitbit just "does its thing", doesn't interfere • **Didn't like how My Fitness Pal app would open separate safari window**	• Fitbit app is simple, one all inclusive app • Samsung health more used than watch app - uses for changing health goals (activity, step) • Expects to see where hes at in relation to daily fitness goal	• After a previous data breach, she is less concerned • "when you opt into something you have to be willing to accept the repercussions" • She accepts risk, since data doesn't seem that important	• Really important for competitions, don't want to miss steps for that • Has been concerned with the accuracy degrading over time • Not sure if would pay for more accurate, would need evidence of how much more accurate
P2 — Samsung Galaxy W, Male, 36, 2 years	• Had Mi Band 3 step tracker, given to son • Likes look of watch, 46mm bezel • Likes usability and flexibility of Samsung • "if I want to brick my watch let me do it"	• No feedback	• Wakes up with phone or watch • Watch buzzes at 4, snoozes until 5 • Checks heart rate over course of night • Sleep efficiency	• Bike rides with son • Walking and tracking steps • Goal: - Lose weight - wants to hit watch activity goal every day -meet 85% of set step goal daily • Uses for swimming and shower	• Stairs, steps goals • Activity goal amounts • Stress tracking -stressful year, likes being told to breathe	• Likes seeing if he had deep sleep • **Most interested in seeing heart rate through night** • Looks at data every morning	• Verbal exchange of workout or activity challenges with sister (personal trainer)	• At work during meetings • Multiple chargers, kitchen, bedroom, office, car • 2 days of use before 15% notification • Find my phone feature • 2-2.5 hours to full charge • Doesn't interfere with goals since data syncs from phone	• Uses calendar notifications • Takes calls on watch • Most used feature is voice to text • Music control to external speaker while in shower • Find my phone feature • **Doesn't und erstand bixby, doesn't like it, interferes** - wishes it had alexa integration though • **Wishes it had caloric, food, water tracking** - admits it might have it, but hes not aware	• Facebook Messenger is only external app, for message notifications • **Wants to add family link app for tracking his son**	• Interacts with app when watch or app needs to update • When he needs to add a different song • Samsung health more used than watch app - uses for changing health goals (activity, step) • Expects to see where hes at in relation to daily fitness goal - **would like for it to tell him if hes not doing something he should to meet a goal**	• 90% important • Has nothing to hide • "if people want your info they get it" • No data on watch hes concerned with people getting	• Great, but 80% important • If its not exactly right its not a big problem • Gives you an understanding of what you are doing

We Need

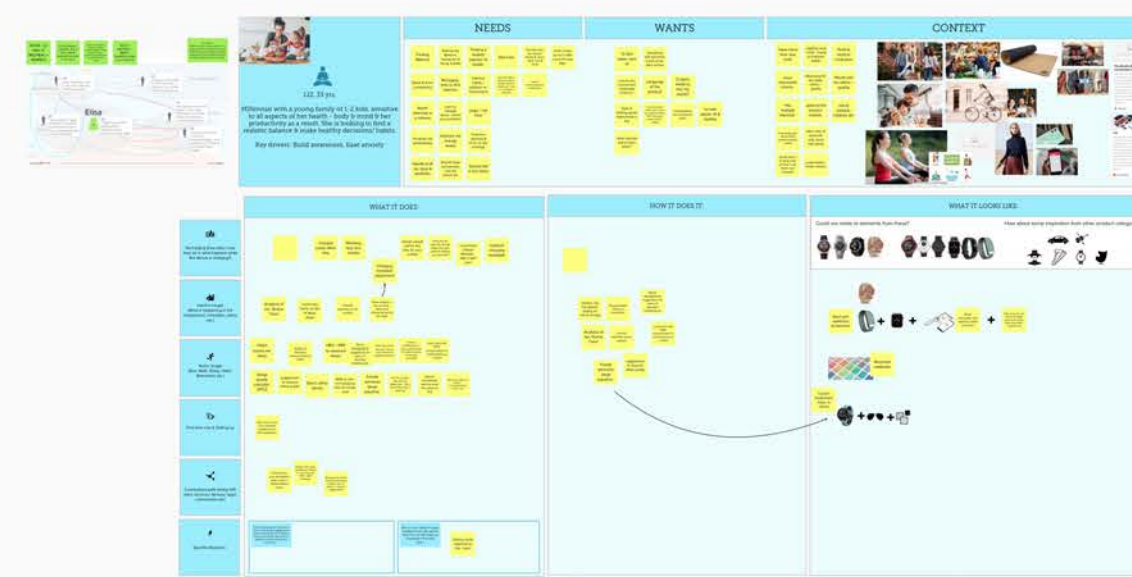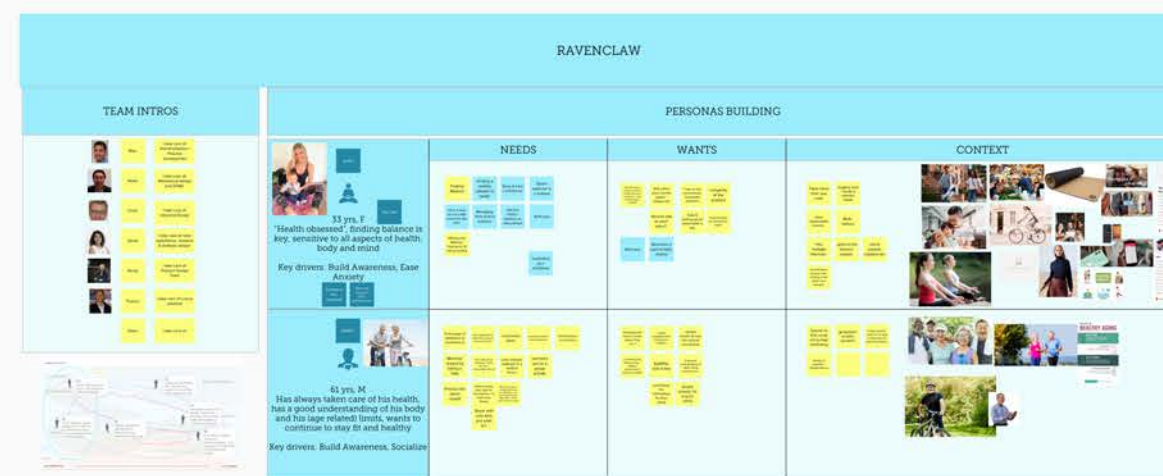Niche market focusing on medical needs

Our Strength
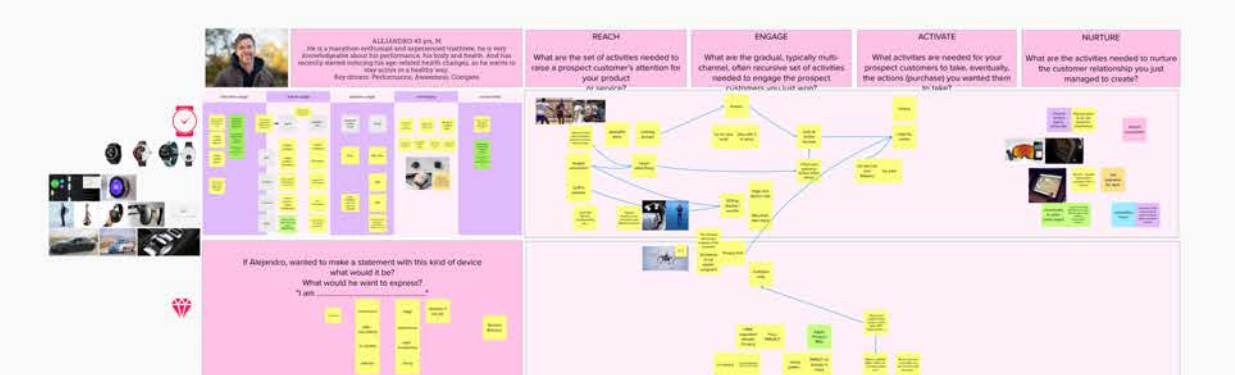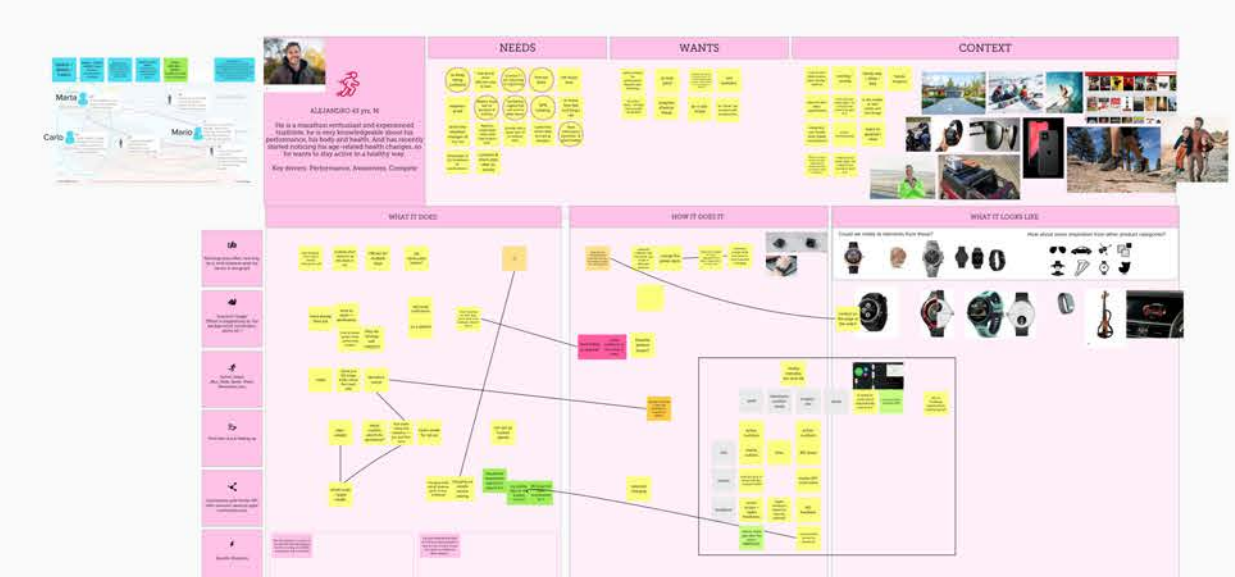
Data Accuracy (sleep tracking, SpO2, etc.)

Personas

Athletes

Patients / Health Focused

Doctors

Assumptions:

- data shared with hospitals and medical professionals that can be read directly at appointments
- mature appearance
- That people will make health changes based on data
- This is going to replace whatever watch people currently use
- How to keep a user engaged with using the product
- Users will value
- Health and
- Tech is better than competitors
- Targeted user market is correct for product/ features
- All the right collaborators involved
- Resources, funding, time sufficient
- There is a market for more wearables
- Users care tech is better

Concerns

- Privacy of health data, who has access?
- Main Target Audience
- disjointed veiw of the project within Masimo
- how can people charge while sleeping
- How to keep a user engaged with using the product
- Not enough features for the consumer types of users.
- Consu... wor... undesta... value of... oxime...

Questions

- How can we further help the users better understand the more difficult health terminology?
- what is the marketing strategy?
- Do people want to understand the detailed vital sign data?
- what can we add that is different from what is already on the market
- What is the price point?
- can we connect our watch with sensors
- can we use dual CPU to extend the hours
- Huawei GT2 pro
- Checkme O2 Wrist Wearable Pulse Oximeter
- What does pulse oximetry mean for a healthy user?
- How much detail of health data does a user a care about?

We Wonder...

Do users want to understand the details of data?

How much detail does a user care?

How to make vital signs meaningful to them?

We Found Out

Do users want to understand the details of data?

Only when alarming

How much detail does a user care?

Not much

How to make vital signs meaningful to them?

Related to sleep quality and exercise outcome

Our Goals

✓ Translate Medical Devices Into B2C products

✓ Actions Around: Accurate Data

My Brainstorming

Following collaborative brainstorming sessions centered on our objectives, I presented an innovative concept: enabling users to interact with medical experts, such as doctors, through the utilization of the Masimo Watch.
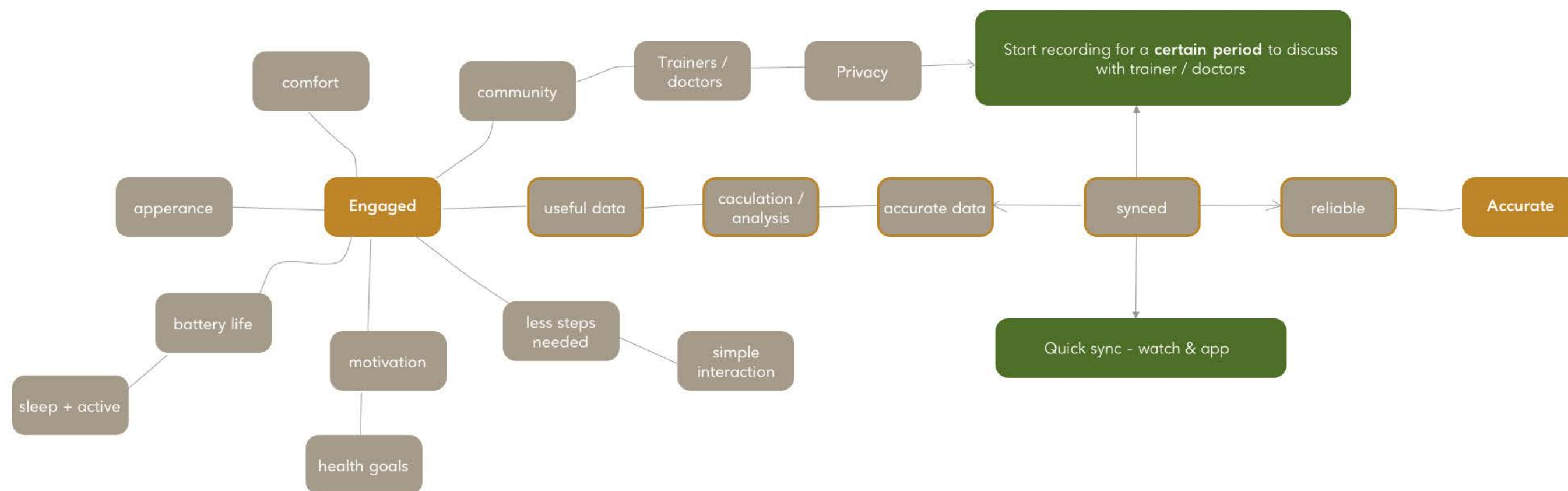
Engage doctors features:

Suggest based on medical reports

Pin / record "moments" For medical needs

Team Decision

Milestone 1

Provide accurate data to patients

Milestone 2

Help athletes with performance

Engage doctors

Milestone 2

Athletes

Milestone 1

Patients / Health Focused

Milestone 2

Doctors

My Assignments

Dashboard

Live Measurement

History

Activities

Sleep

The Other UX Designer

Watch Interface

Menu

Settings

On Boarding

Fitness

Onboarding

|
|

Dashboard

|
|

Menu

Measurement   continues

spot check

Activities   calories

movement

steps

Fitness   sports

vital signs

report

Sleep   analysis

report

History   filter

calender

sessions

Stop Watch

Settings

User Flow

Task: Set up Masimo Watch

Legend
- START
- Watch action
- App action
- DECISION

Power on watch → Select start pairing on watch

App already downloaded? — No → Download Masimo Watch app

Yes ↓

Start Masimo Watch app

Create account / Sign in

Previous account? — Yes → Sign in

No ↓

Create Masimo account ↓ Agree to terms and conditions ↓ Enter email and new password ↓ Confirm account creation

Sign in → Remembers password? — No → Recover password → Enter email → Recover password from email

Yes ↓

Enter email and password ↓ Confirm sign in ↓ Enter name ↓ Enter phone # ↓ Select gender ↓ Enter age ↓ Enter height → Enter weight → Add portrait → Enter address

Pair watch to phone

Enter address → Select pair on phone app ↑ Preferred pairing method? — QR code → Scan watch QR using phone app camera

Auto pair ↑ Confirm auto pair ↑ Issue during pairing? — Yes → Go to troubleshoot pairing page

No ↑ Acknowledge pairing success notification

View app tutorials while pairing? — No → Skip app tutorials

Yes ↓ View watch tutorials on app

Receive app set up completion notification → Tap watch screen to engage in watch tutorials → View watch tutorial? — Yes → View watch tutorials

No ↓ Skip watch tutorials → Receive watch set up completion notification

Dashboard Ideation

During the ideation phase, I presented two alternatives for comparison alongside the one suggested by my director.

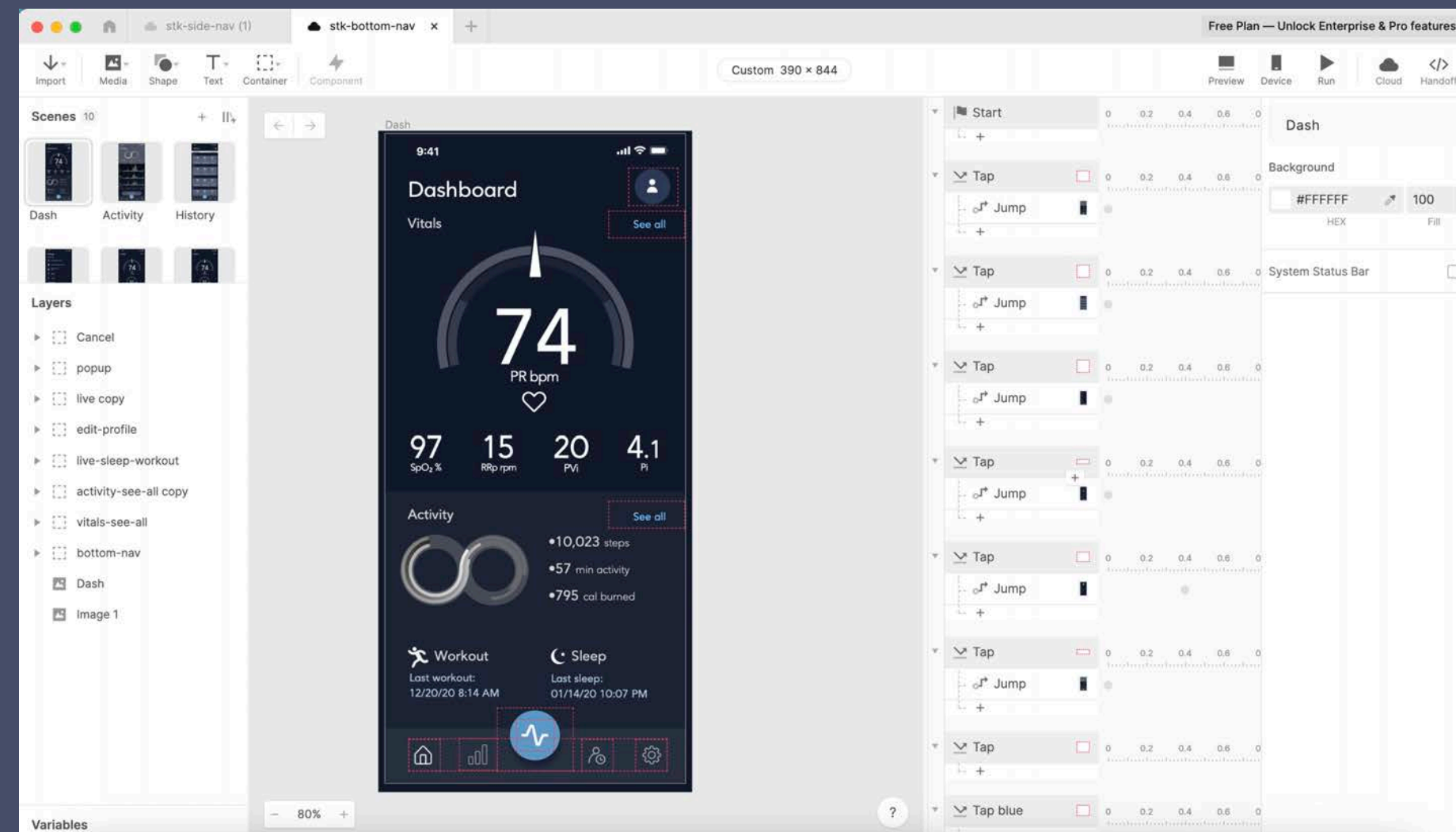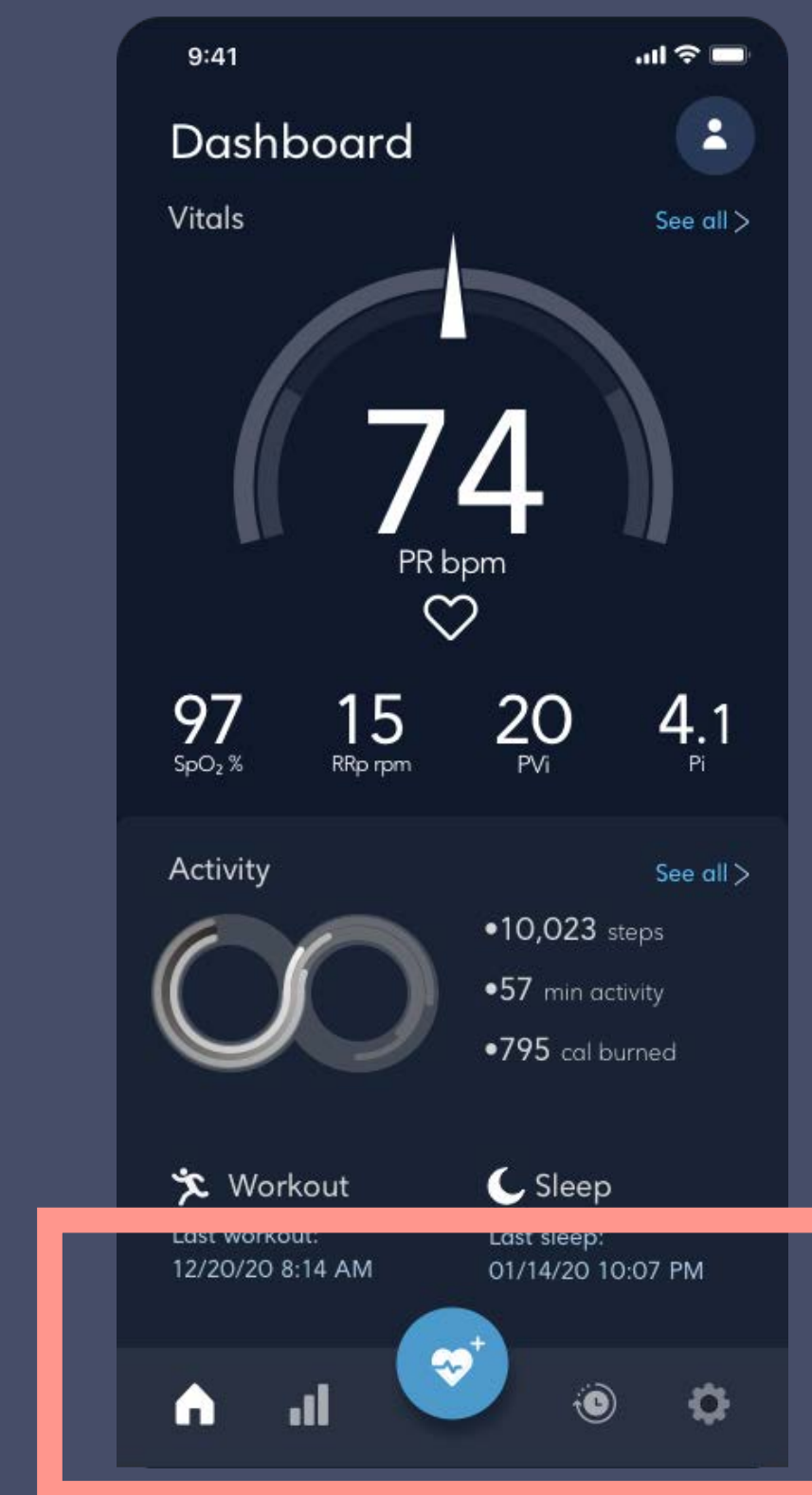Option A (Director)

Option B (Mine)

Option C (Mine)

Peer Review

The team cannot decide between the bottom navigation and the hamburger menu options.Therefore we conducted a A/B testing using Protopie as the prototyping tool.

Option A (Director)

Option B (Mine)

A / B Testing

The result showing that users prefer the
bottom navigation, but they like the card
design that I proposed.

Stakeholder Review

Although users showed a preference for my card design, the VP opted for my director's proposal to ensure improved branding consistency.

Comments From VP:

Consistent With other Masimo Devices

More Professional Looking

My Concepts For Essential Screens
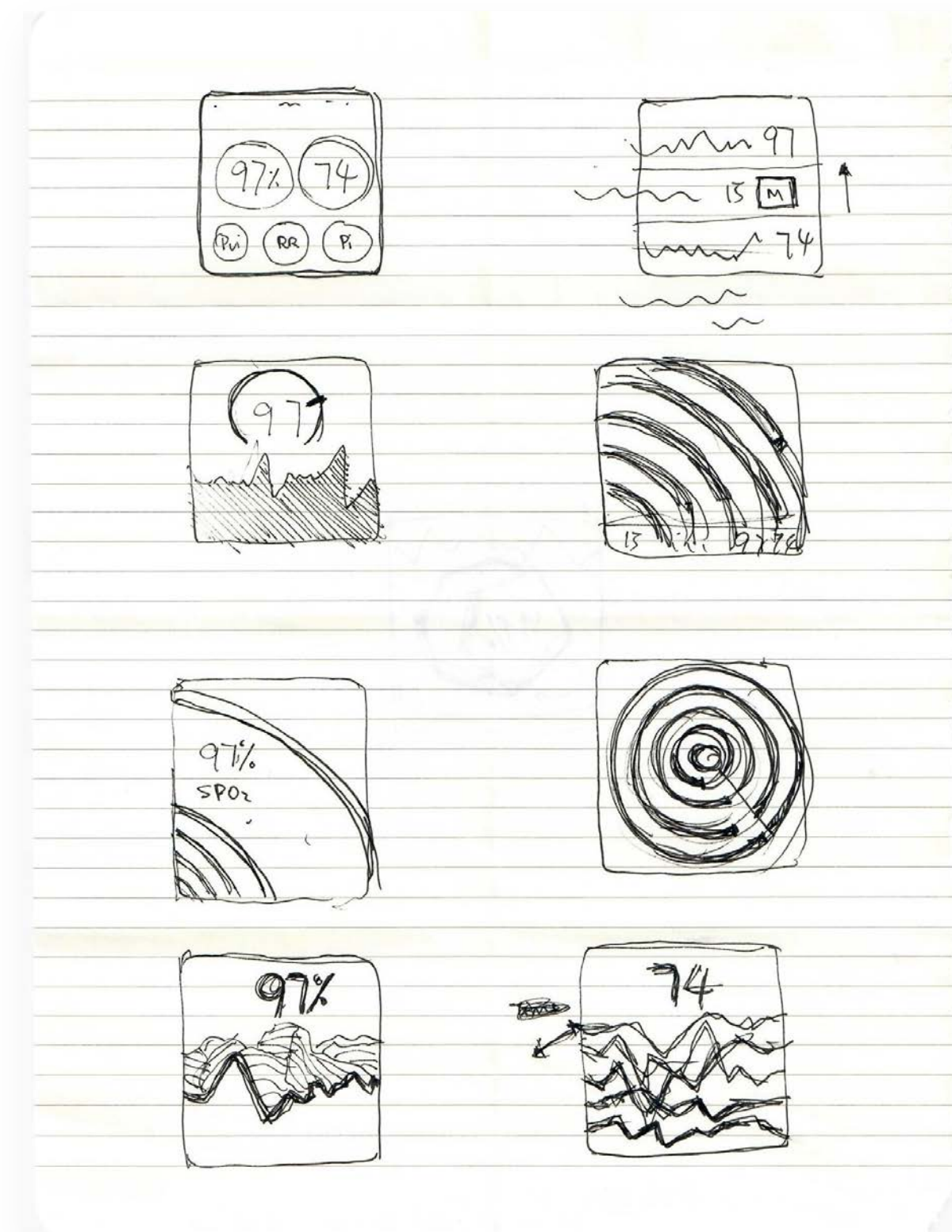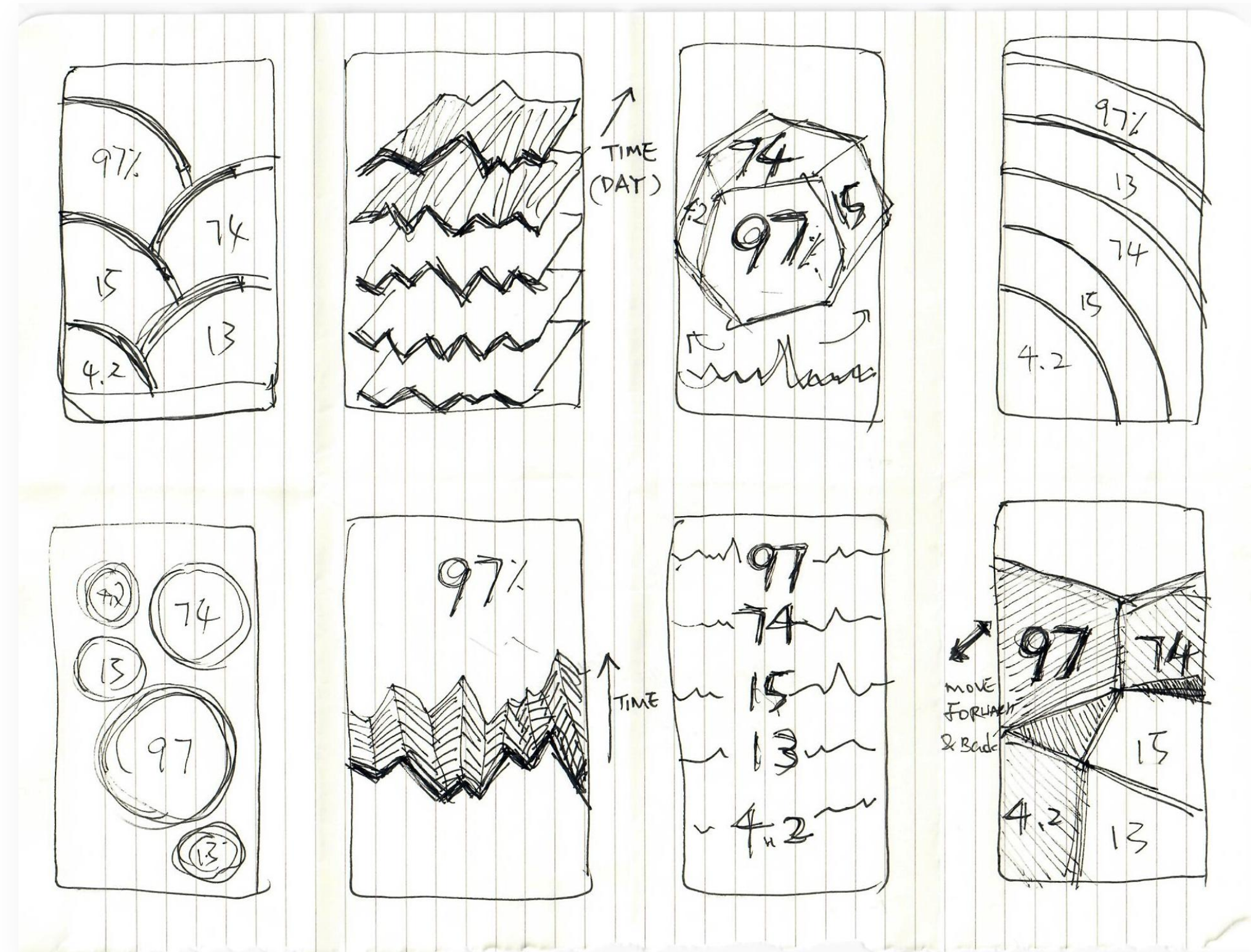
Monitor Screens Ideation

Initially, I introduced an innovative concept involving a 3D waveform to visually present vital history across several days, facilitating vertical comparisons. Nonetheless, its execution was hindered by technical limitations.
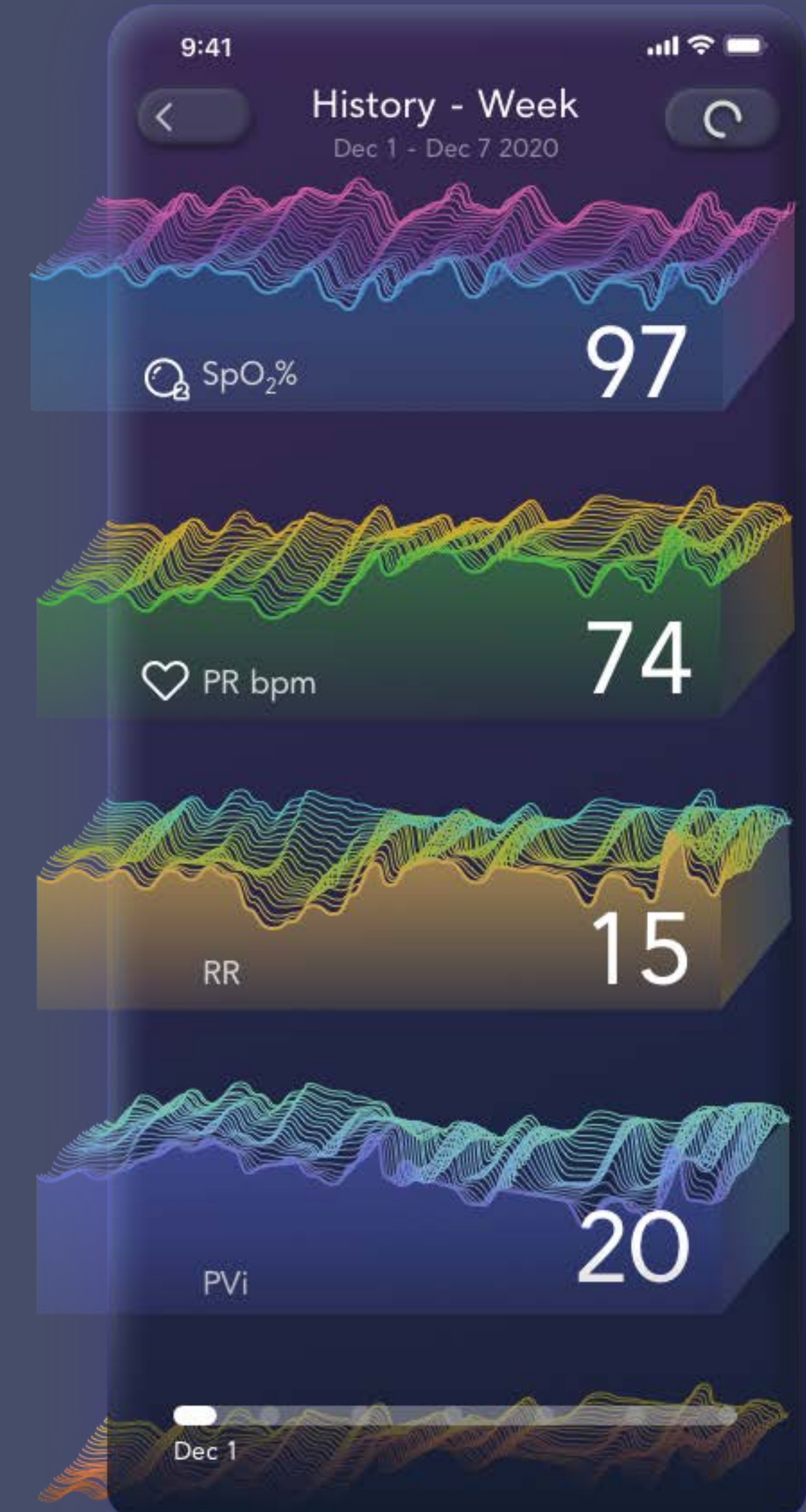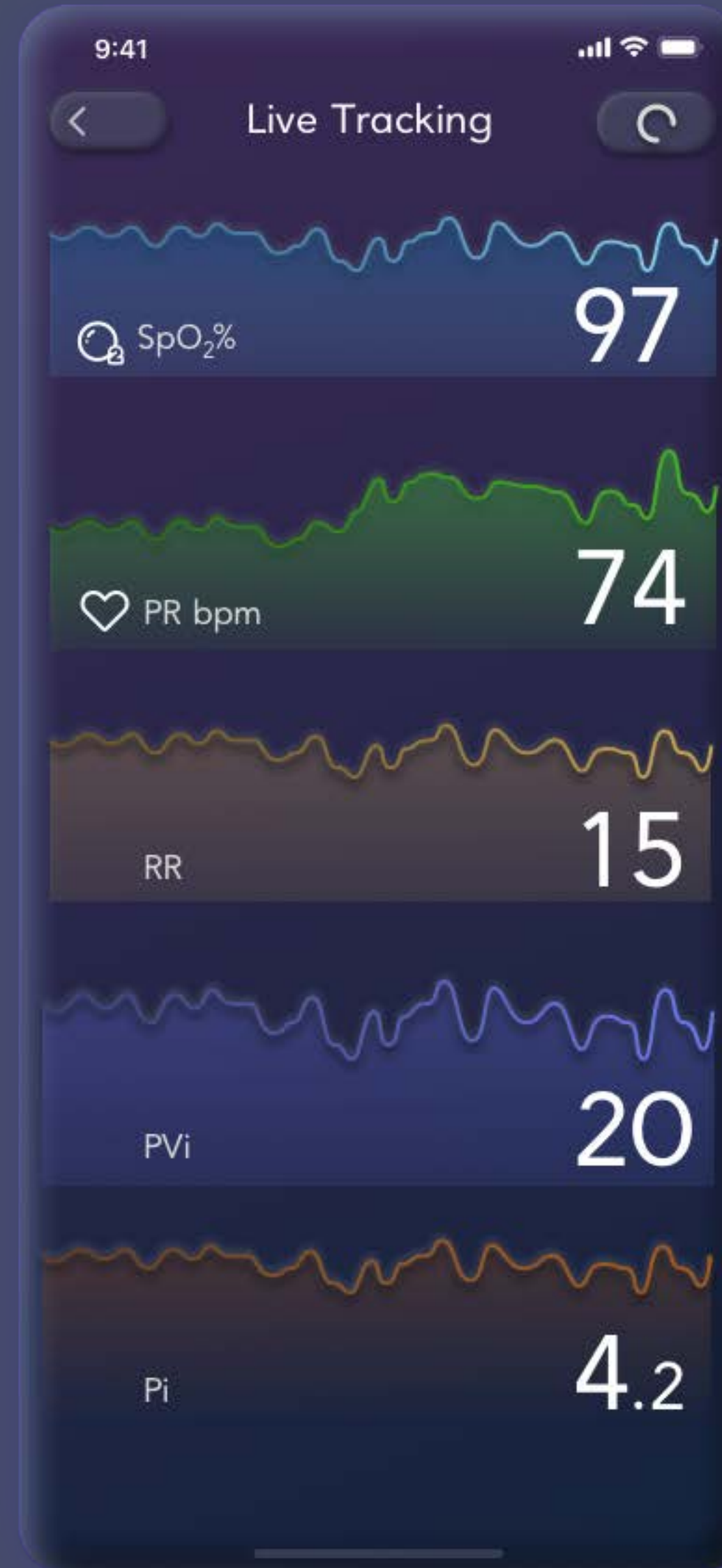
Monitor Screens Ideation

Subsequently, I advocated for a grounded approach by seamlessly translating our professional devices into user-friendly interfaces.
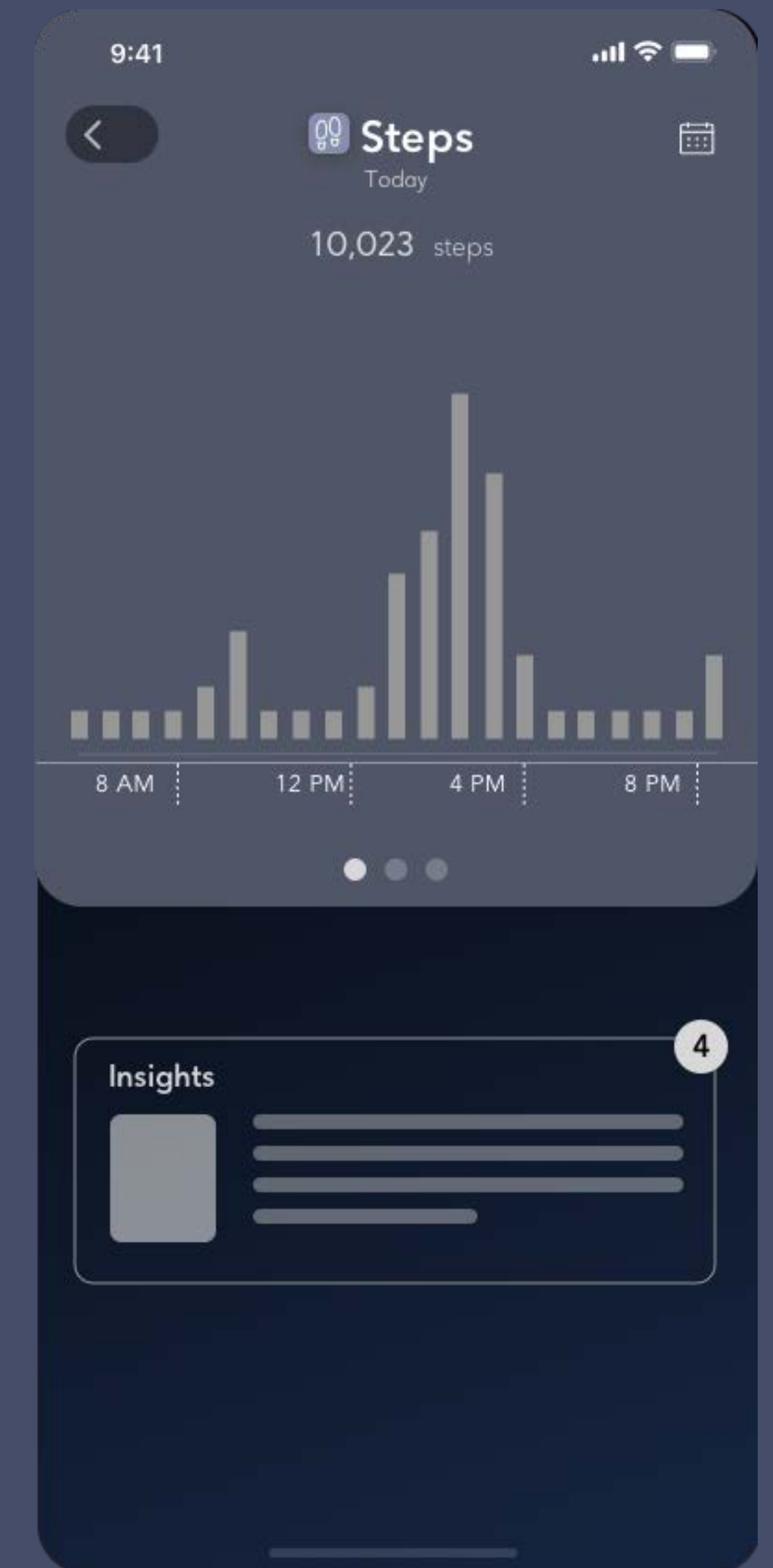
History Screens Ideation

Within the historical screens, I advocated for the inclusion of an "Insights" feature, offering users suggestions to enhance the user-friendliness of medical data.

Activity Screens Ideation

Within the activity screens, I introduced a loop concept within the activity screens aimed at setting us apart from competitors.
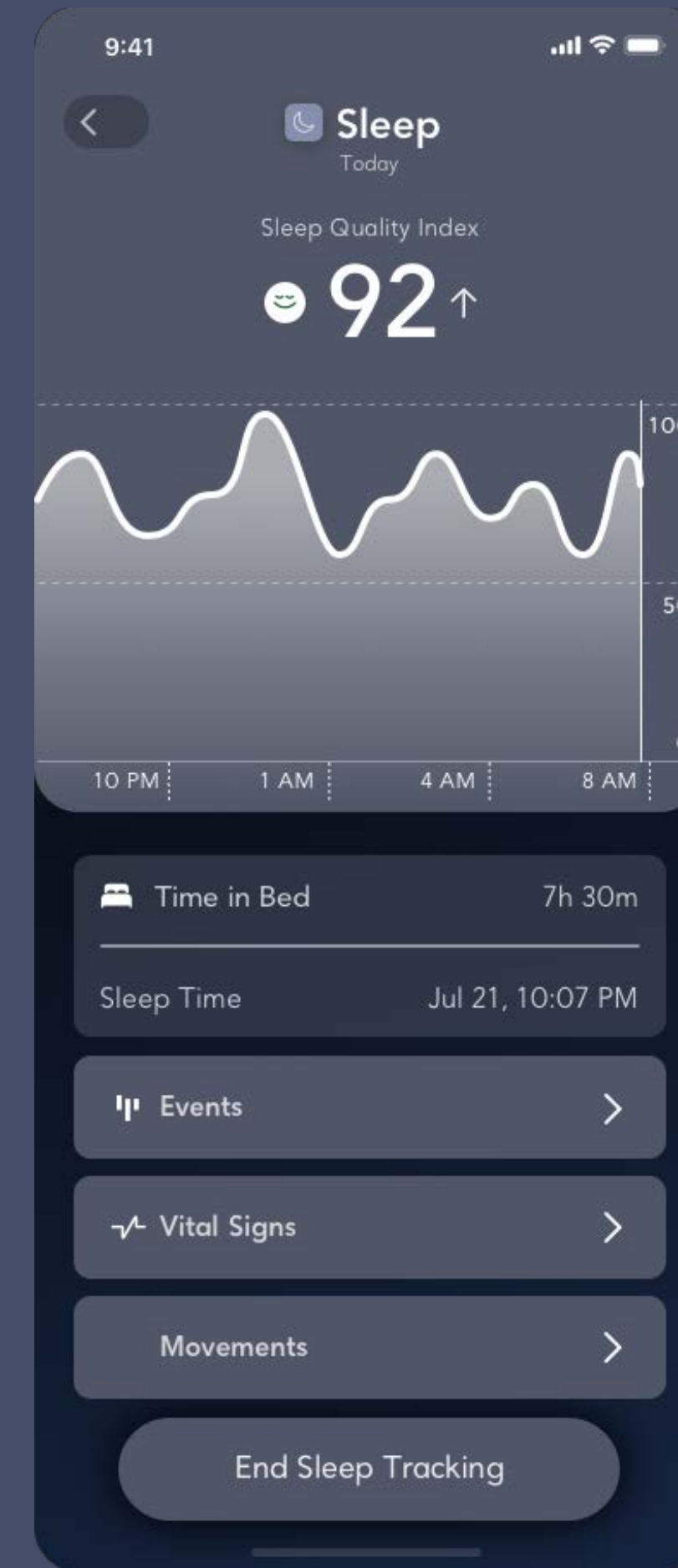
In-House Lawyer's Feedback

Our internal patent attorney remains apprehensive about the potential intellectual conflict arising from the introduction of rings, particularly in relation to the Apple Watch.

Utilizing my modeling skills, I successfully transformed 2D rings into a dynamic 3D loop through a strategic revision.
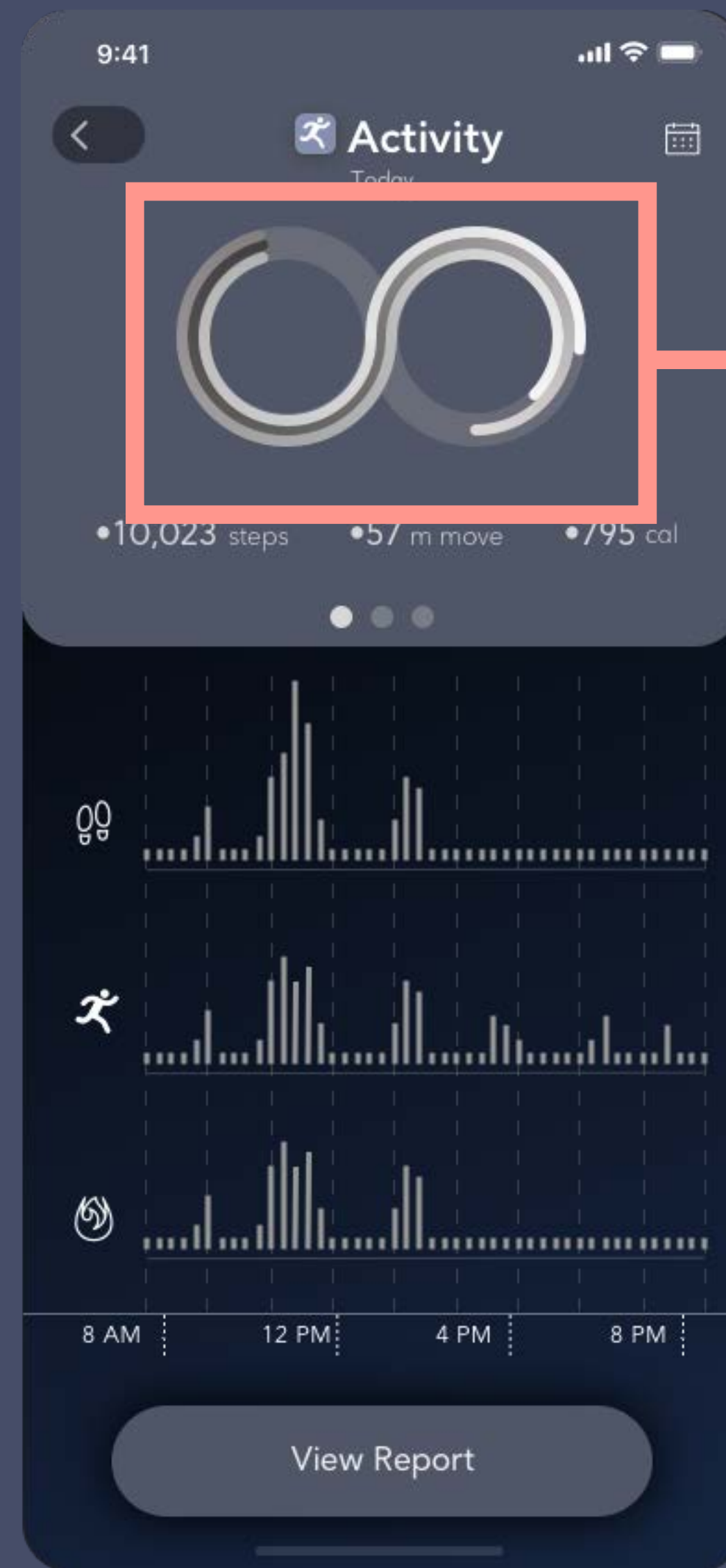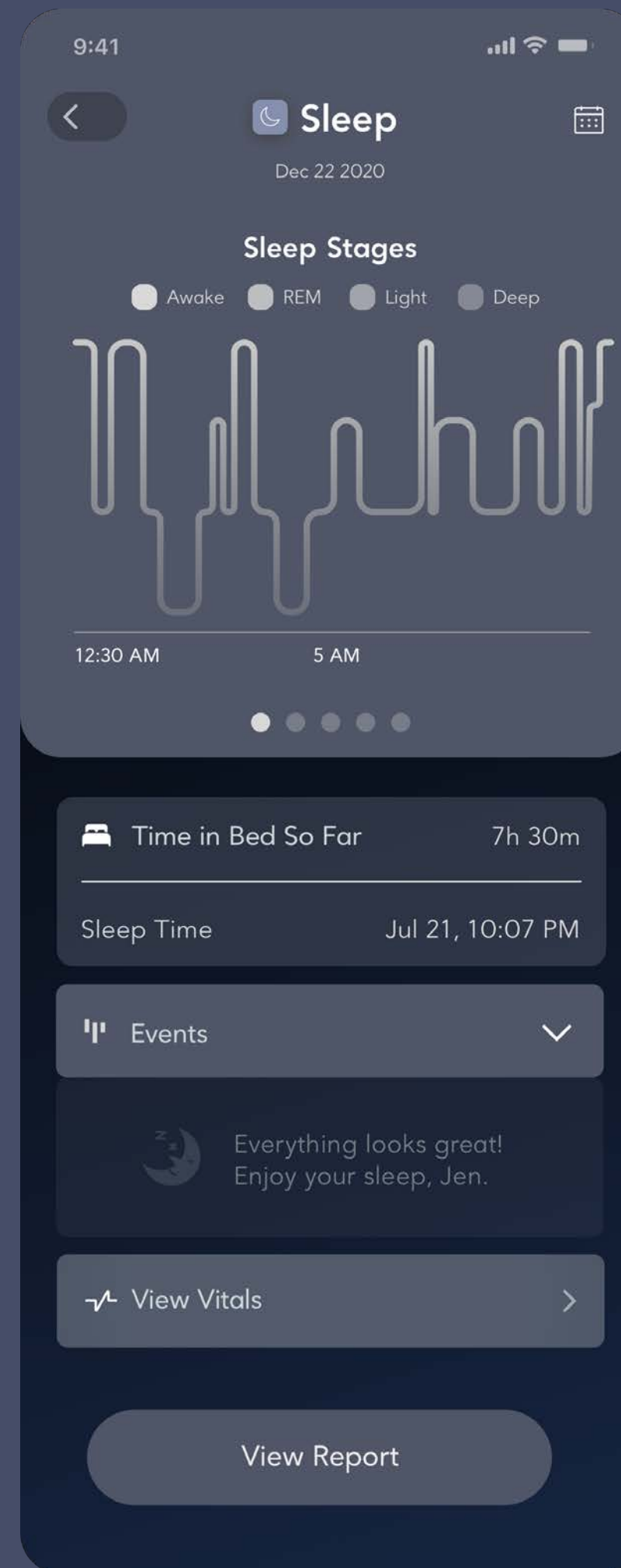
Sleep Tracking Screens Design

I conceptualized the design for the sleep screens before my departure from the company, but I am uncertain whether these designs were incorporated into the final product.
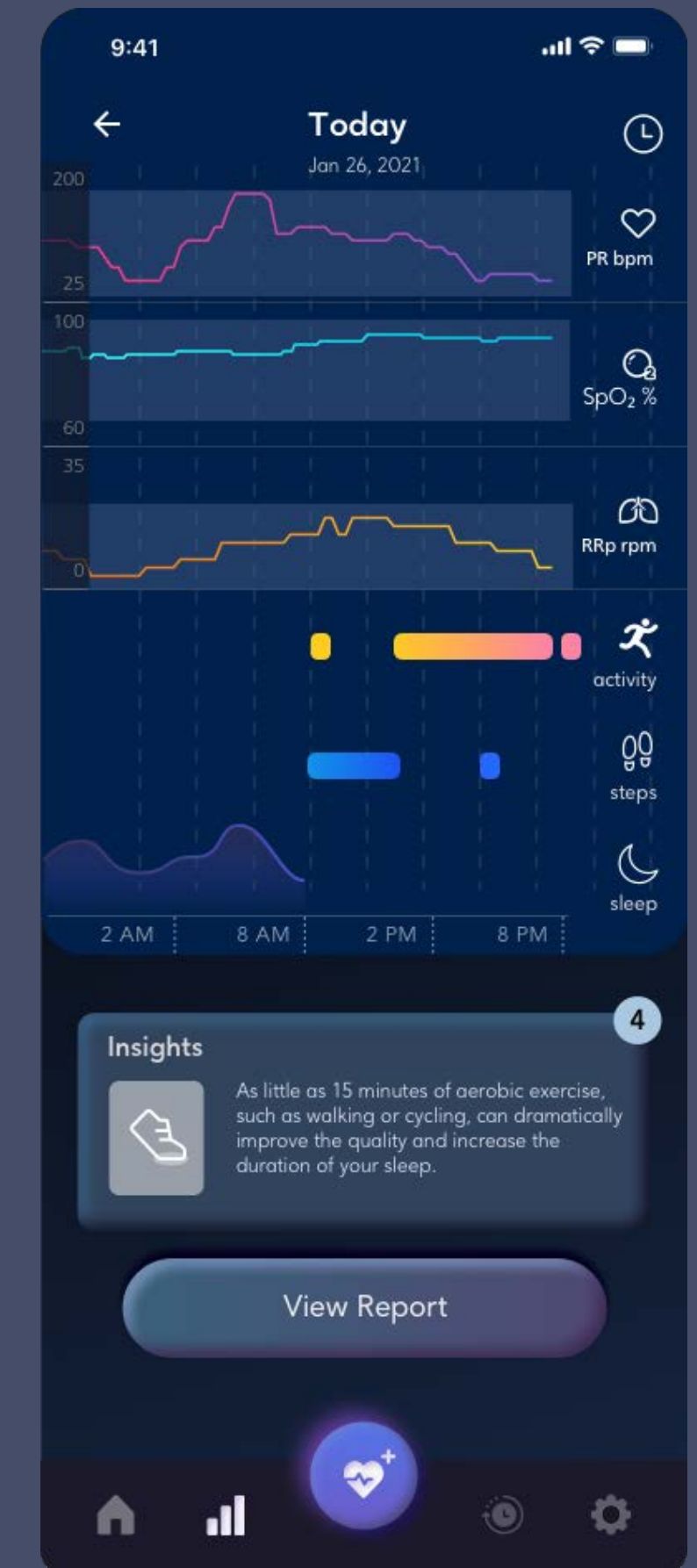
Sleep Report Screens Design

High Fidelity - Key Screens

I proposed these design but I am uncertain whether these designs were incorporated into the final product.

My Concepts For Milestone 2

My Assumptions:

Patients have specific moments that they want to discuss with medical professionals.

Health focused users want to follow punctual schedules for exercising time, sleep time, medication intake, etc.

My Concepts:

If validated by users

Generate "Cloud Reports" For Medical Needs

Remind schedules on watch faces

My "Cloud Report" Concept

I've devised a concept that involves generating a QR code within the watch, enabling effortless scanning and seamless import of patient data into our Masimo embedded monitors. This innovation aims to optimize time for both medical professionals and patients.
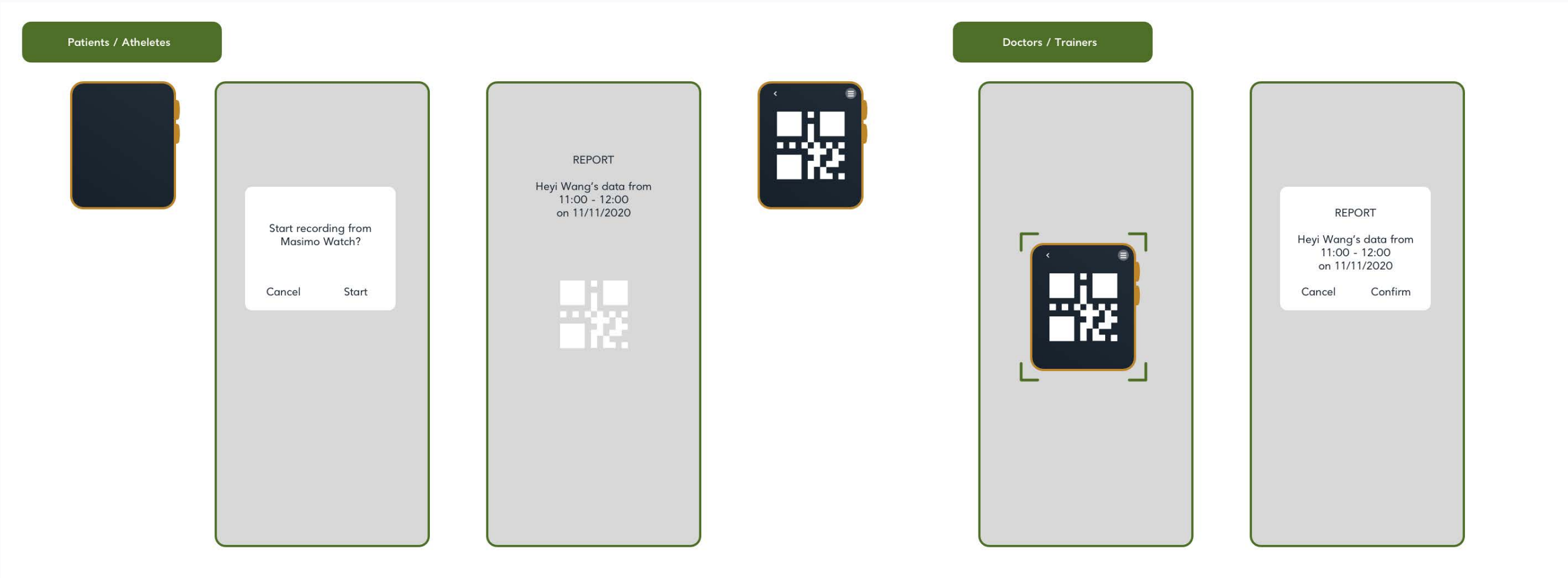
My "Punctual" Concept

I conceptualized an innovative idea that merges a traditional clock
with a digital schedule, offering users reminders for medication intake,
exercise routines, calendar synchronization, and more.

What I Would Do Differently

Conduct in-person user interviews and observations.

When do users **look at** watch during work out?

Do they have hard time using watch **while moving**?

Make the interface more consumer-facing friendly.

Translate professional medical language into interfaces

that consumers are familiar with.