



# HYEJIN IM

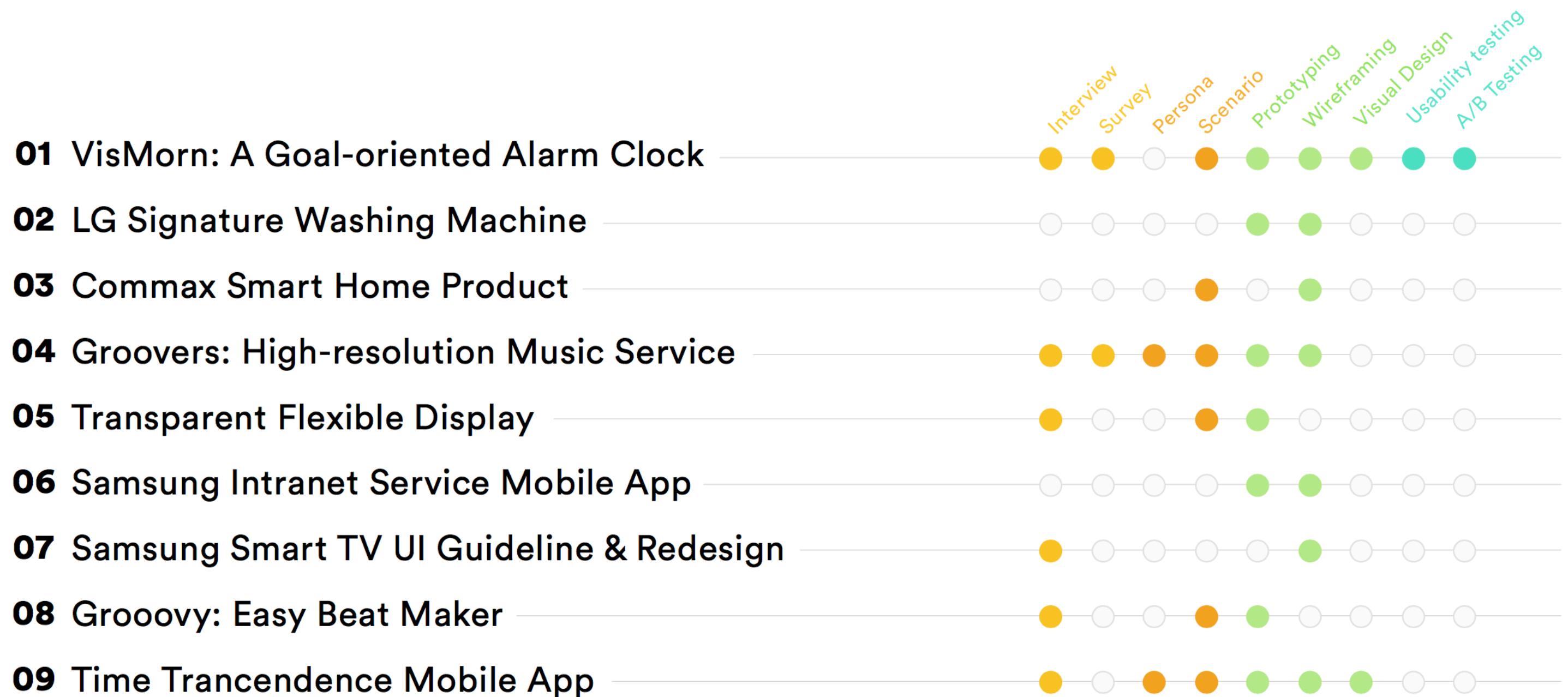
User Experience Designer

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🔍 [hyejinim.github.io](https://hyejinim.github.io)

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- Project Range
- Research
- Analysis
- Design
- Evaluate



# 01

## VisMorn: A Goal-oriented Alarm Clock

Personal, Nov 2016 - Dec 2016

Domain Productivity   Platform Mobile

I designed a morning alarm clock app for people who struggle to wake up at a scheduled time. Instead of setting a single time to wake up as other alarm clocks do, my prototype provides two different times to set up, one for waking up and another for doing another task (e.g., go to work). The app focuses on achieving a high-level goal as waking up on time is often only a part of reaching the goal. That is, it emphasizes the time gap between wake-up time and task time to encourage a user to be more aware of the goal when setting the times and hitting the snooze button.



## Design Process

### Needfinding

Observation  
Interview  
Evaluation results

### Ideation

Inspiration boards  
Brainstorming  
Storyboards

### Prototype

Paper prototype  
Wireframe  
Functional Prototype

### Evaluation

Heuristics Evaluation  
Usability test  
A/B test

## Research Question

“How can I help people, who used to fail to wake up at planned time, be punctual on their schedule?”

## Interview Questions

- 1 What do you do before sleeping in order to wake up on time?
- 2 Why do you fail to wake up at the ideal time?
- 3 What point is your breakdown while using alarm clock app?

## Semi-structured Interviews



**April (26)**  
**Social Welfare Worker**

- Just starting out in a career
- A sleepyhead who unconsciously snoozes



**Leslie (56)**  
**Office Worker**

- Strict at appointment times
- Multiple alarm times just in case.



**Ron (31)**  
**Ph.D Student**

- Flexible schedule
- Variable wake-up times according to daily workload

## Key Insights

1



2



The gap between  
the time you **want** to wake up  
and  
the time you **actually** wake up

3



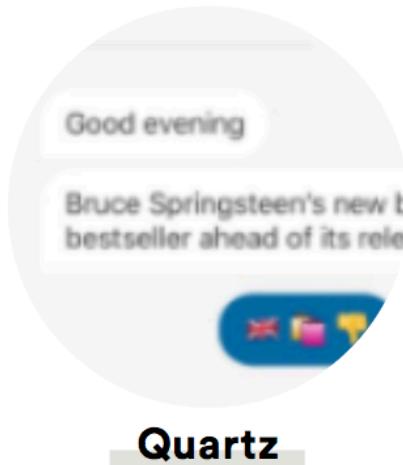
Cumbersome to  
**calculate** and **check**  
an alarm time every night

## Inspiration



**Pebble**

Smart Watch



**Quartz**

News Media  
Mobiel App



**Ruggie**

Alarm Mat



**Smoke Alarm**

Personalized  
Parent Voice Alarm

## Storyboards

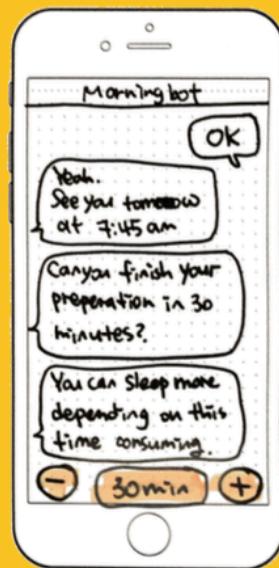


### Design Ideas

- Notify alarm time before sleeping
- Limit the ability to snooze after a certain time
- Show rewards for not postponing the wake-up time

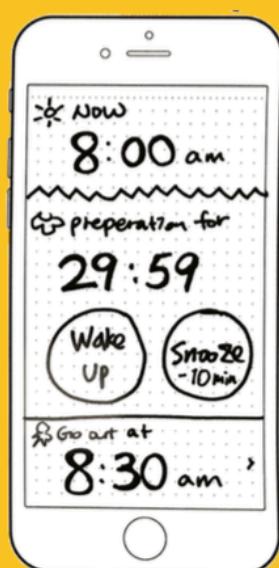
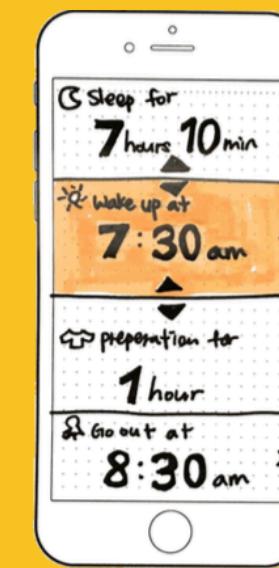
## 2 Paper Prototypes

### A Message Bot



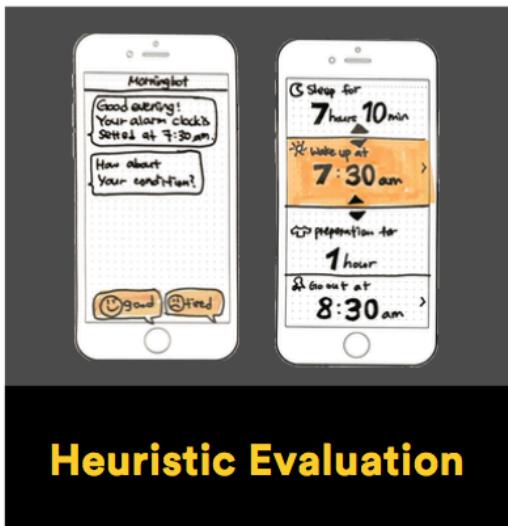
A conversational agent can personalize an alarm time by communicating with users about wake-up setting information.

### B Visualization Time



The area and place of each card represents the duration and time respectively. Users can change the alarm time by dragging up and down to change the size of the area.

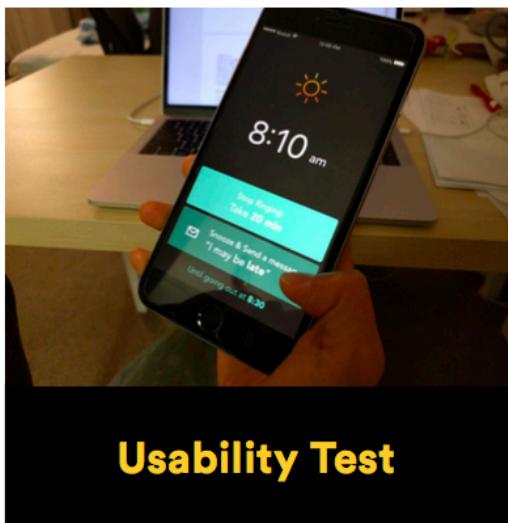
## Evaluation



Heuristic Evaluation

“ Evaluated two paper prototypes based on heuristic evaluation

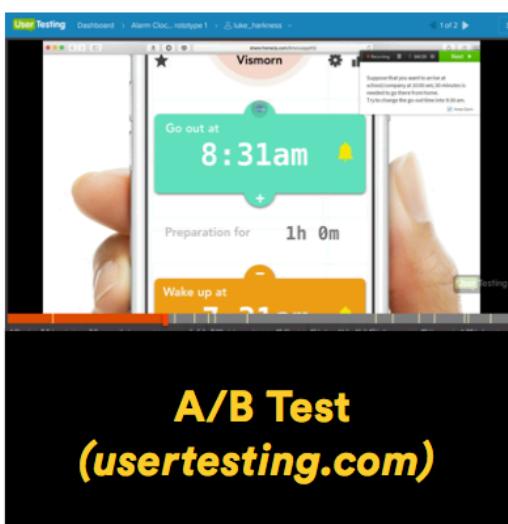
“ Merged the best of the two prototypes into one design



Usability Test

“ Improved the usability of time control interface

“ Added options for different time settings



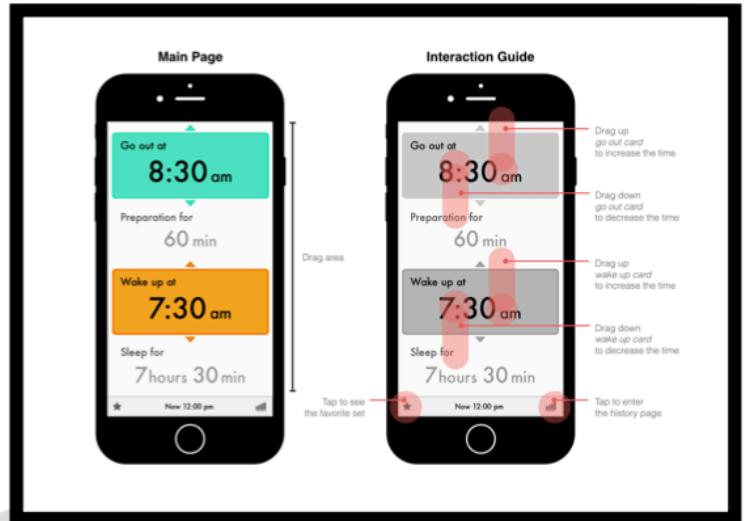
A/B Test  
([usertesting.com](https://usertesting.com))

“ Compared different design alternatives through user testing

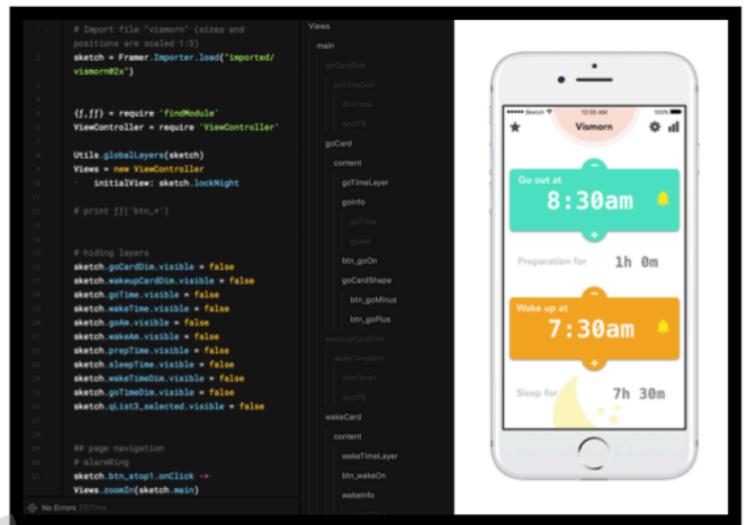
“ Added a tutorial for controlling time setting interface

## Develop

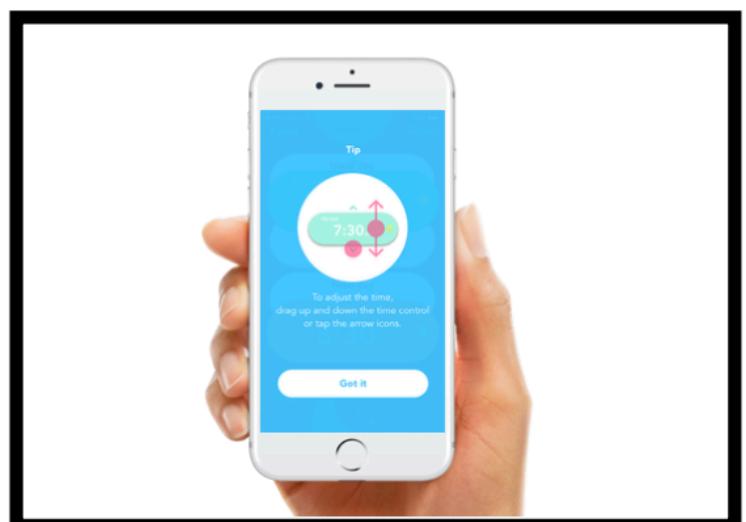
### Wireframe Sketch & Functional Prototype



2nd Functional Prototype



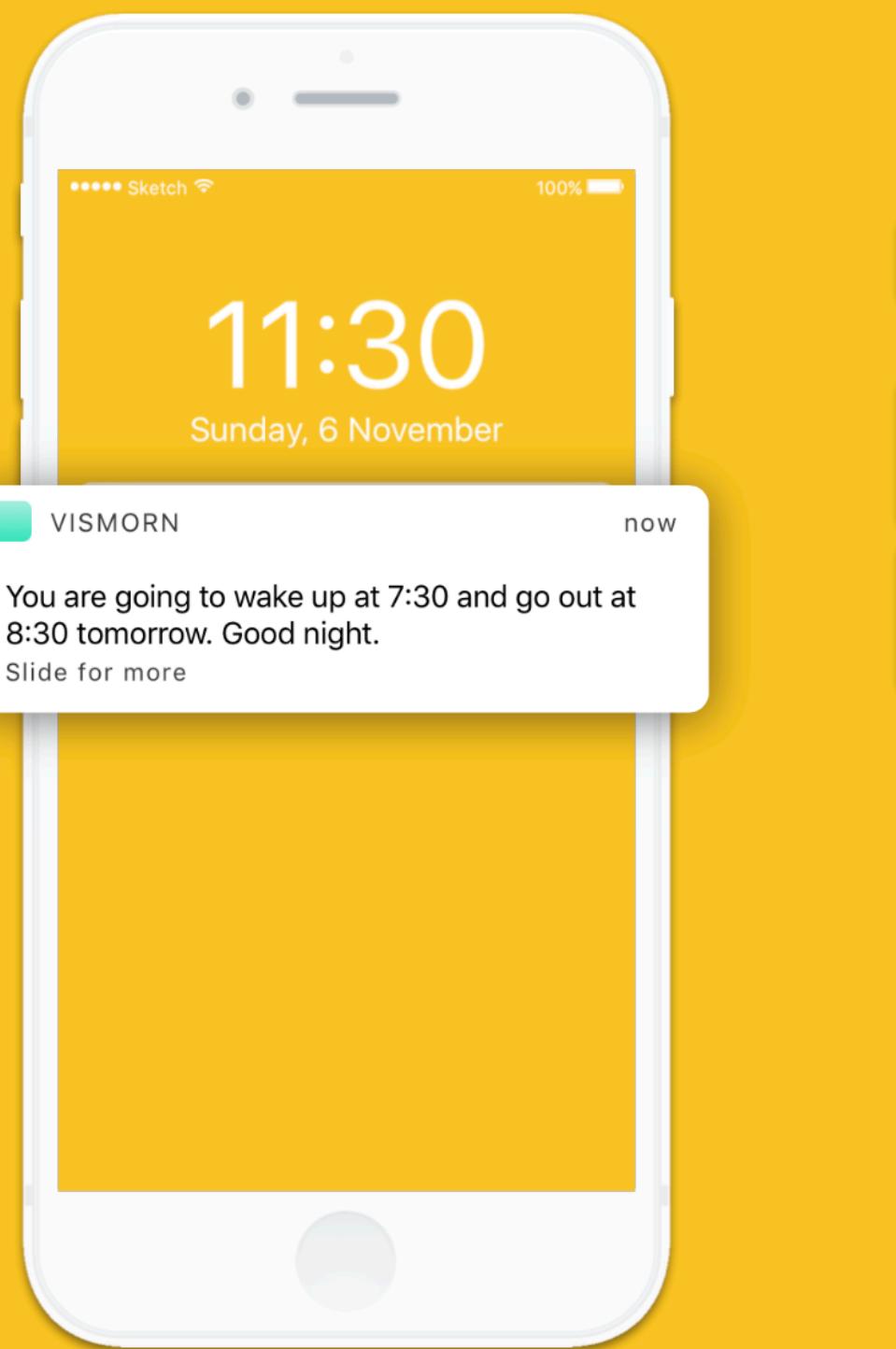
3rd Functional Prototype



## Design Results

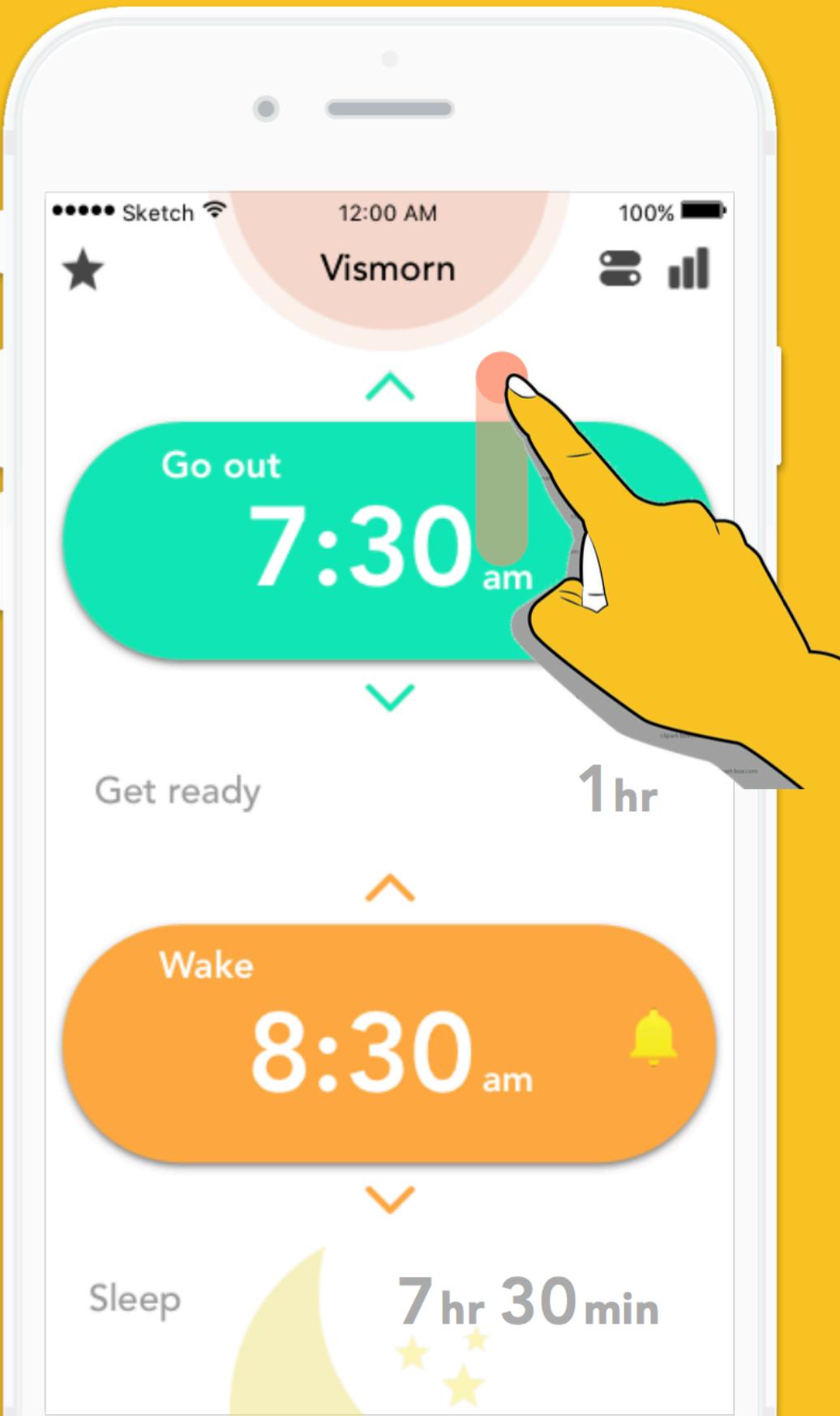
### 1 Alarm Brief at night

Remind a user of her alarm time



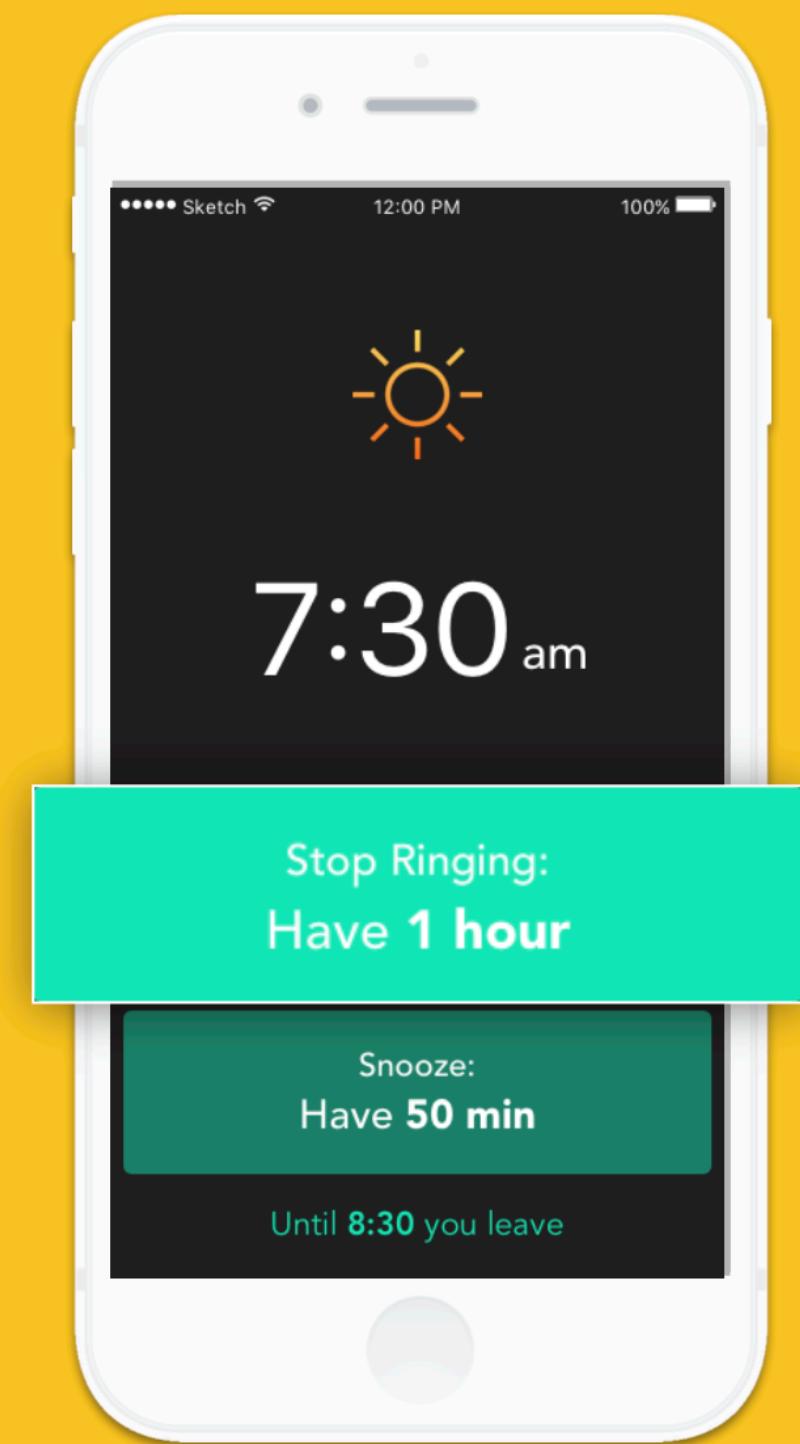
### 2 Goal-oriented Alarm

Set each time by dragging up and down and show the difference between the wake-up and goal time



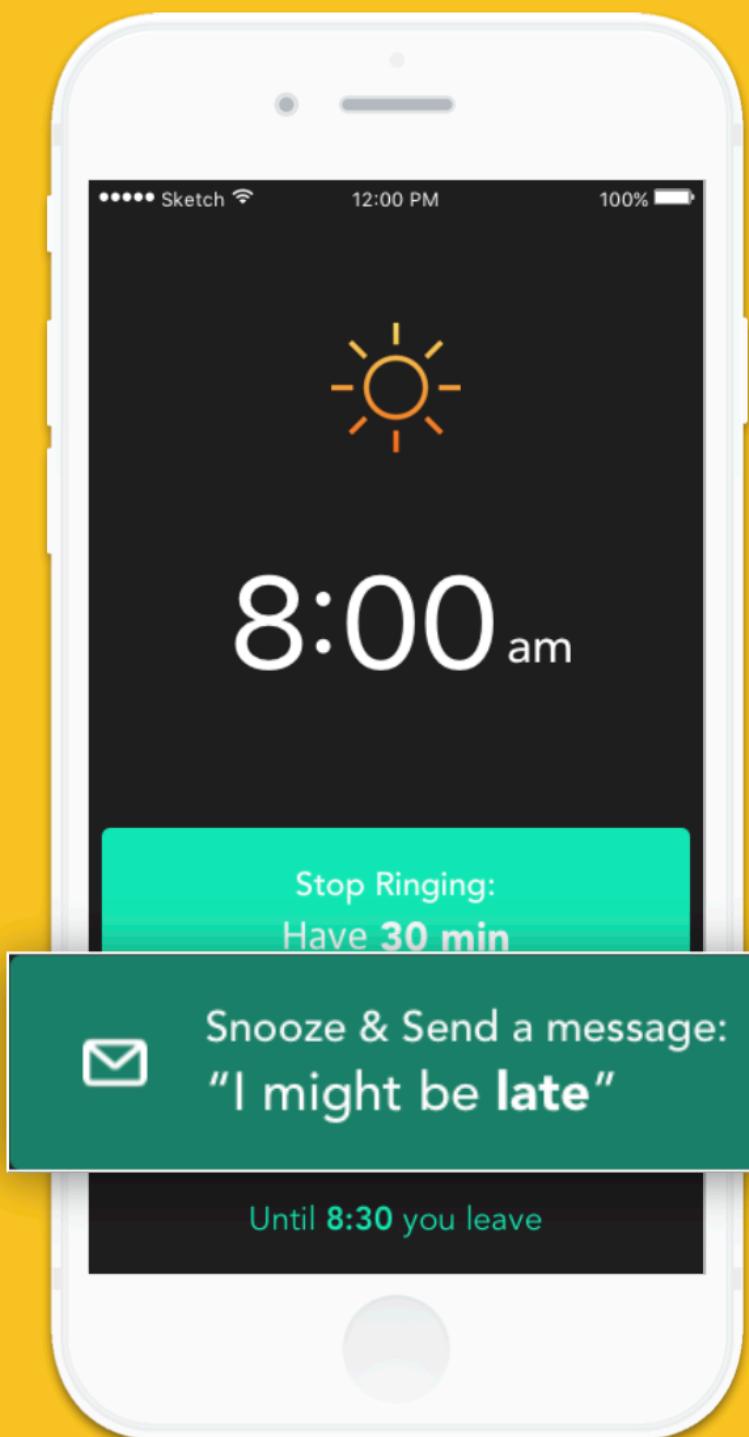
### 3 Context-aware time info

Show the remaining time information when snoozing and waking up now



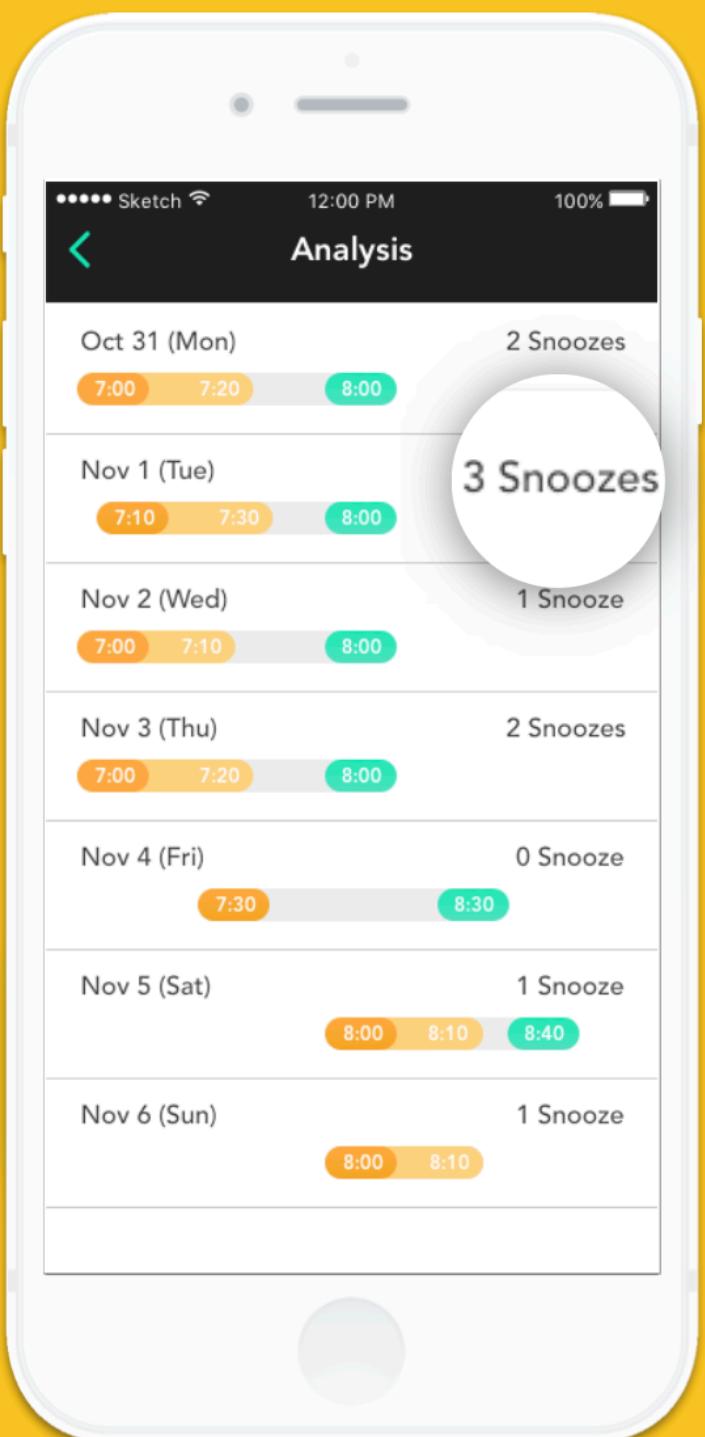
## 4 Snooze Warning

Give a warning after passing the snooze limit.



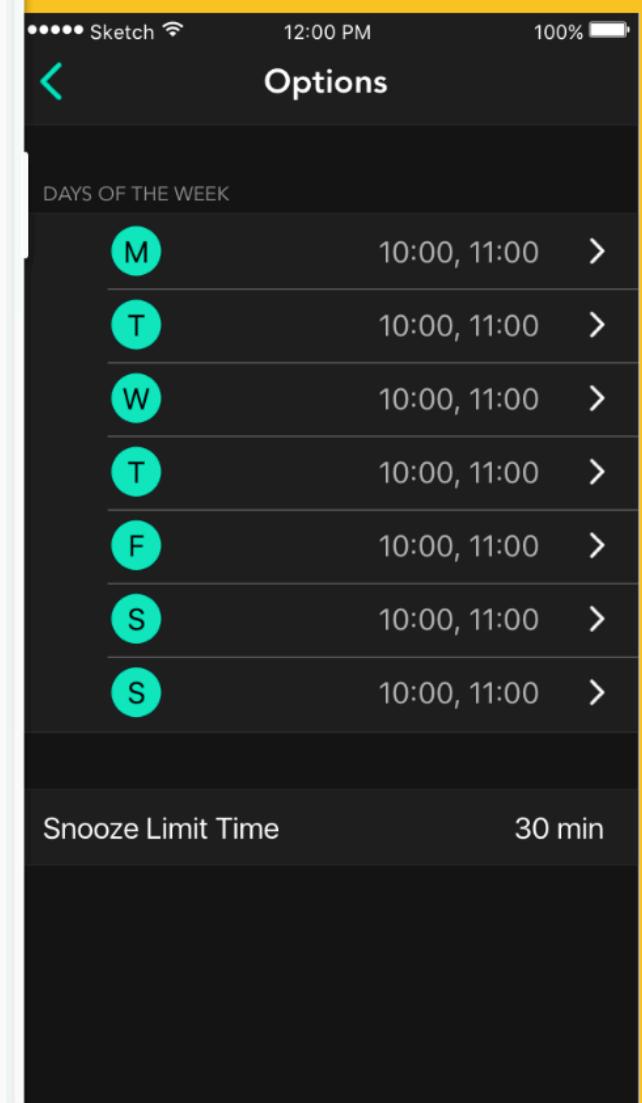
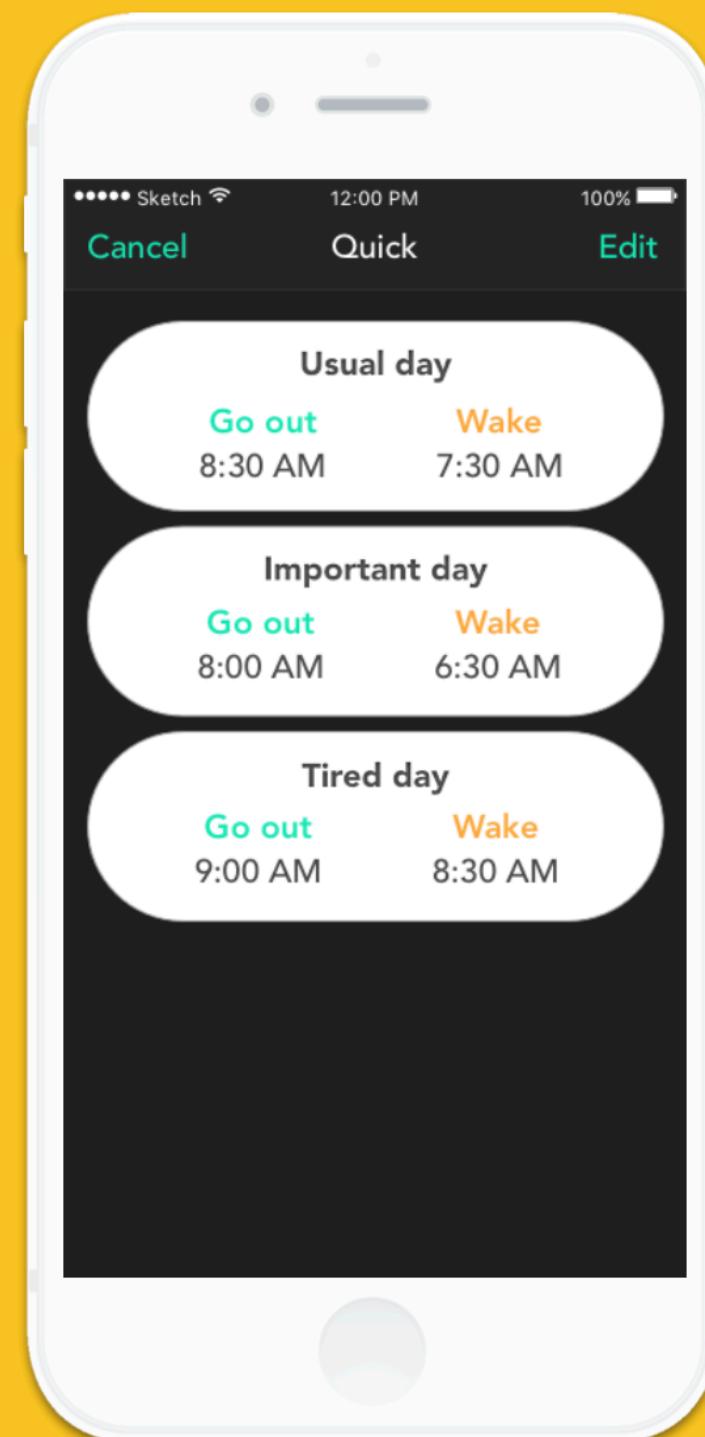
## 5 Wake-up History

Show the past history of wake-up patterns



## 6 Setting a Routine Alarm

Preset a reoccurring alarm according to different situations and contexts



# 02

## LG Signature Washing Machine

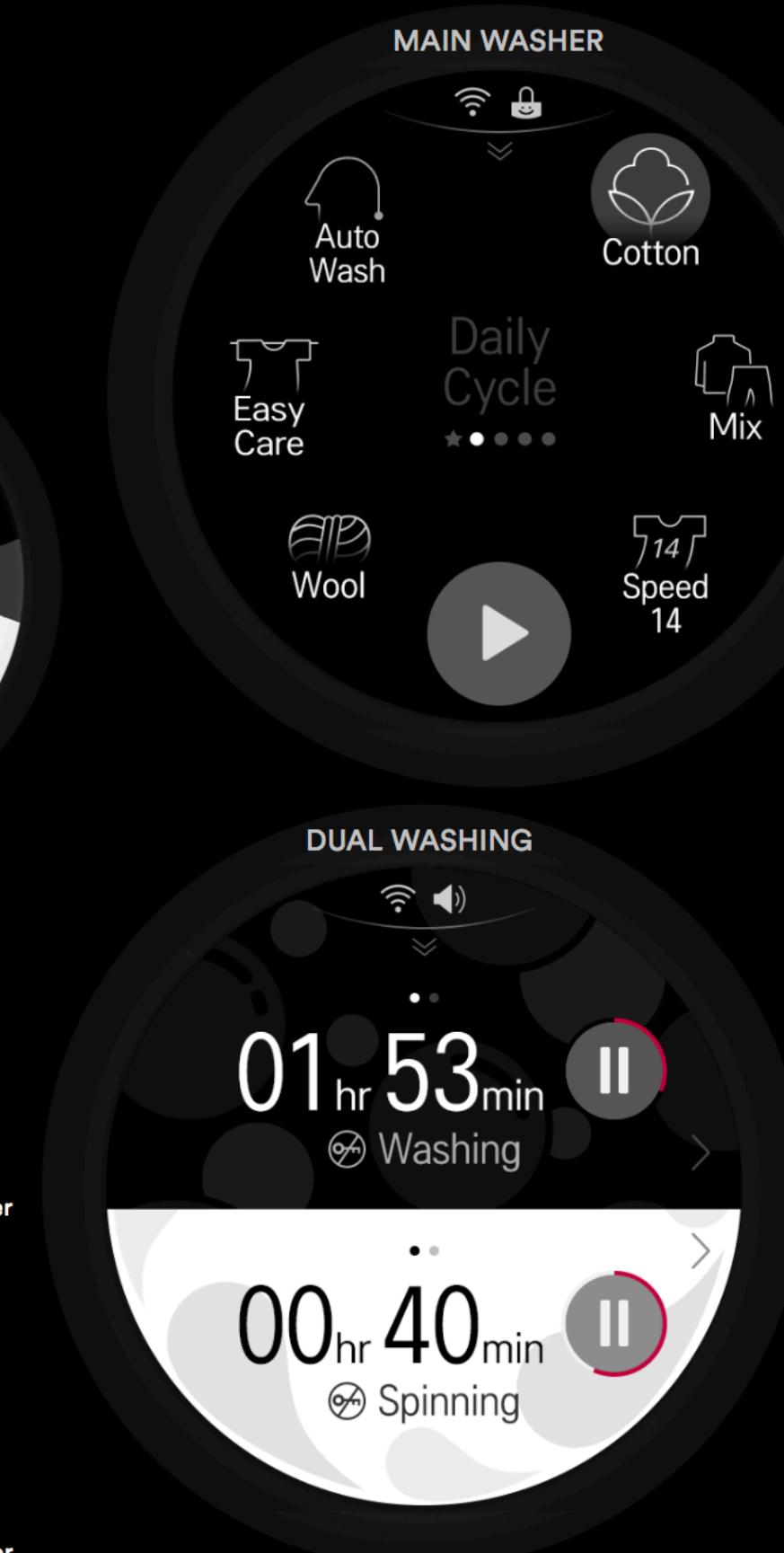
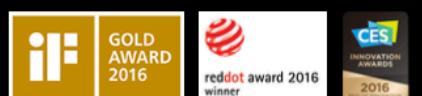
Professional, Jan 2015 - Mar 2015

Role  
UI Design

Domain  
Lifestyle      Platform  
Home Appliance

The goal of this project is to design a user interface for controlling both main and sub washers. The main challenges were small circular touch display and two washers in one machine. We took analogies from familiar circular objects such as moon phases and clock to tackle the challenge. The final deliverables include wireframes and motion graphics, demonstrating interaction scenarios.

### Recognitions



# 03

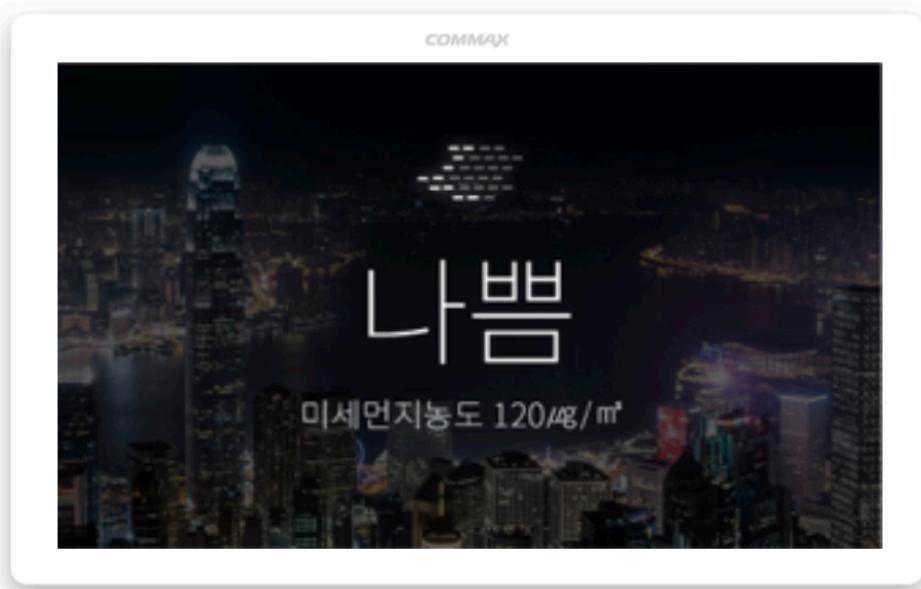
## Commax Smart Home Products

Professional, Nov 2016 - Dec 2016

**Role**  
UX/UI Design

**Domain** Smart Home    **Platform** Wall Pad, Mobile

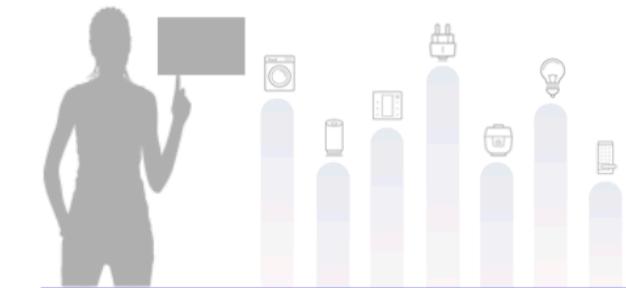
We designed wall pad and mobile interface designs for a home automation app monitoring and controlling various devices. Our goal was to minimize redundant controlling tasks and maximize accessibility by providing useful and friendly information in different contexts. We investigated the needs of users in different situations and identified problems during the course of user actions. Our design focuses on providing context-aware information and revealing appropriate features in different moods and places. The deliverables include service journey maps and wireframes.



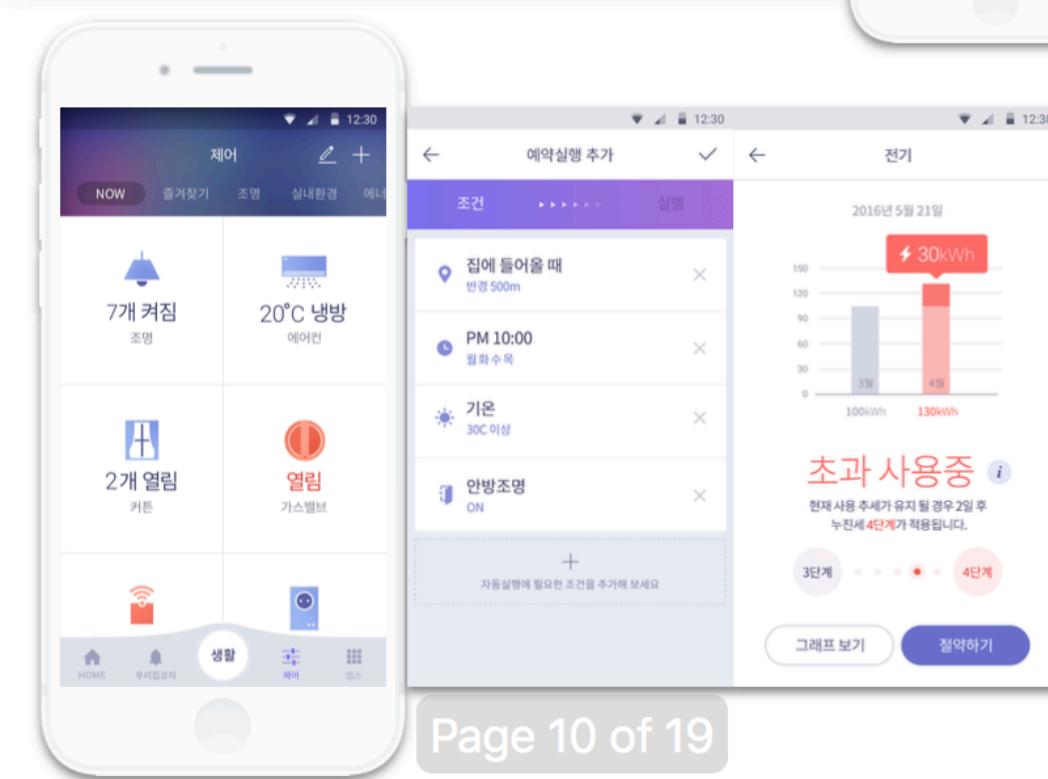
Scenario > Design concept > Wireframe > Visual design

Provide context-aware information based on a user's environment

### 1 10-Foot Ambient Information Display



### 2 One-touch Home Environment Setting



Control a set of devices according to specific situations (mode) and spaces

Support user-defined control logics for home automation

### 3 On-demand Detailed User Settings

# 04

## Groovers High-resolution Music Service

Professional, Nov 2016 - Dec 2016

**Role**  
User research, UX/UI design

**Domain**  
Music

**Platform**  
Web, Mobile

A high-level goal of this project is to develop a design strategy for developing a high-resolution music services. We conducted interviews both regular users and audiophiles. By coding and clustering the results of the interviews, we developed three personas of potential high-resolution music users. Based on the personas, we further developed a prototype to demonstrate a design strategy for a high-resolution music service.

**Publication**  
Three Personas of Potential High-resolution Music users

ACM CHI 2016 Extended Abstracts



Focus Group Discussion > Survey > User Research > Persona > Scenario > Design Strategy > Wireframe Sketch > Prototype

### Interview Goals

- 1 Music listening context
- 2 Motivation for high sound quality
- 3 Entry barriers to hi-res music

### Persona Development Process



### Personas

#### Leisurely Listener

##### Yamato

42, Married  
Manager at bank



New hobby

Quality first  
but convenience

**“** Listening to music is my new hobby. I want to enjoy music in the best way possible as I can afford it. I may listen to hi-res music if it enriches my hobby in any possible manner.

Possessive about music resources

Active in exploring new music

Passionate in learning music knowledge

#### Music Explorer

##### Hayao

34, Single  
Business consultant



CD, LP  
collector

High musical  
knowledge

**“** I like to learn stories behind music or histories of artists. I am not really into high-quality audio. I may listen to hi-res music if it helps me expand my musical landscape.

Possessive about music resources

Active in exploring new music

Passionate in learning music knowledge

#### Artist Maniac

##### Naomi

20, Single  
University student



ONLY  
my artist

Empathy

**“** I would have never known about hi-res music if my favorite artist did not release a hi-res album. I may listen to hi-res music if it helps me better connect with my favorite artist.

Possessive about music resources

Active in exploring new music

Passionate in learning music knowledge

## Key Findings & A Service Prototype

Provide Easy Accessibility to New Genres

Interface to control the level of music recommendation based on the difficulty of genres

Improving Digital Experience of Hi-Res Music

Show personalized information such as how much a user experienced music in a certain genre



Music Curation Based on Auditory Experience

Present a variety of curated music such as based on recording studios and remake or live versions



Lower barriers to hi-res music

Provide a tutorial for enjoying hi-res music such as setting up a quality listening environment

# 05

## Transparent Flexible Display

Professional, Nov 2016 - Dec 2016

**Role**  
Context research, Ideation, Scenario

**Domain** Store      **Platform** Public Display

We developed user scenarios demonstrating the usefulness of transparent flexible display. Through ideation workshops and role-plays, we investigated potential needs in various places and situations where the display could be useful. We delivered videos demonstrating possible user cases and interactions.

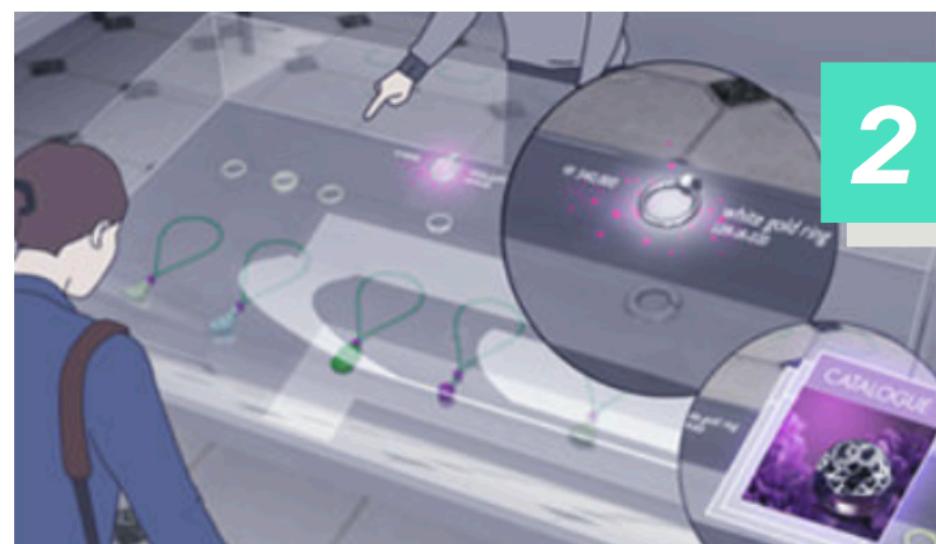


### 1 Select an item beyond display

Select ingredients and confirm order in a food store

Eye tracking

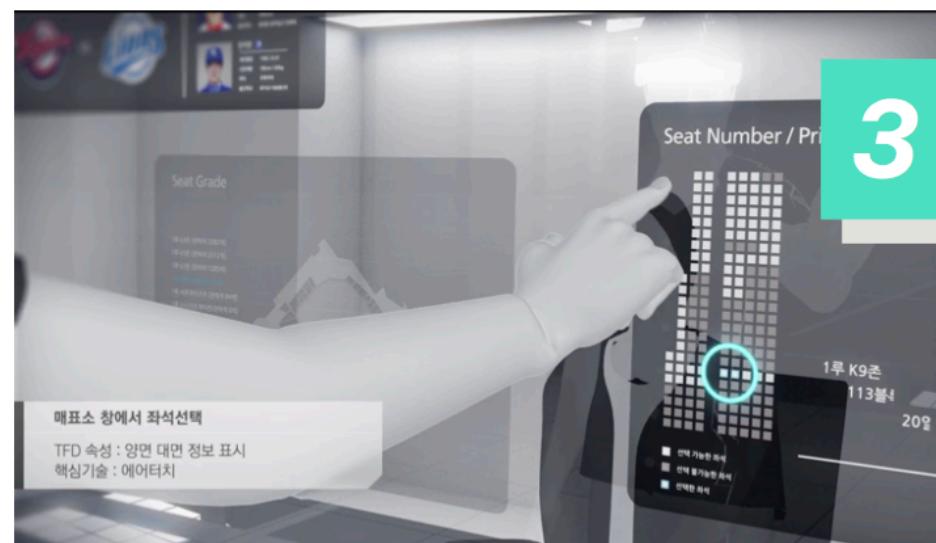
Tangible UI



### 2 Show details about an item on display

Confirm item information or compare multiple items in a jewelry store

Tangible UI

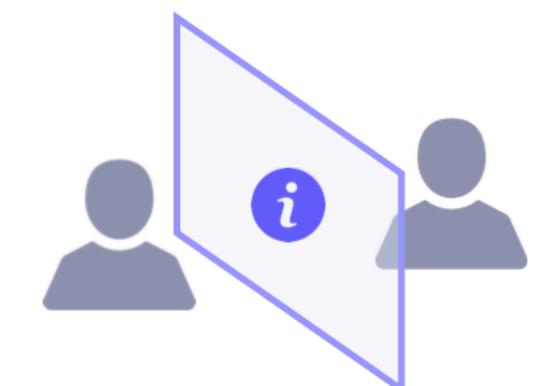
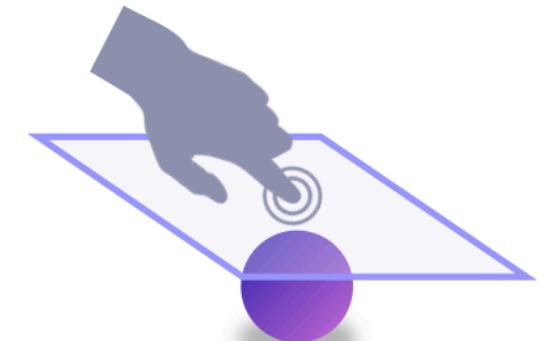


### 3 Share information through display

Provide and check seat information in a ticket box

Gesttrue interaction

Head tracking



# 06

Design concept < UI design < Visual design

## Samsung Intranet Service Mobile App

Professional, Nov 2016 - Dec 2016

Role  
UI design

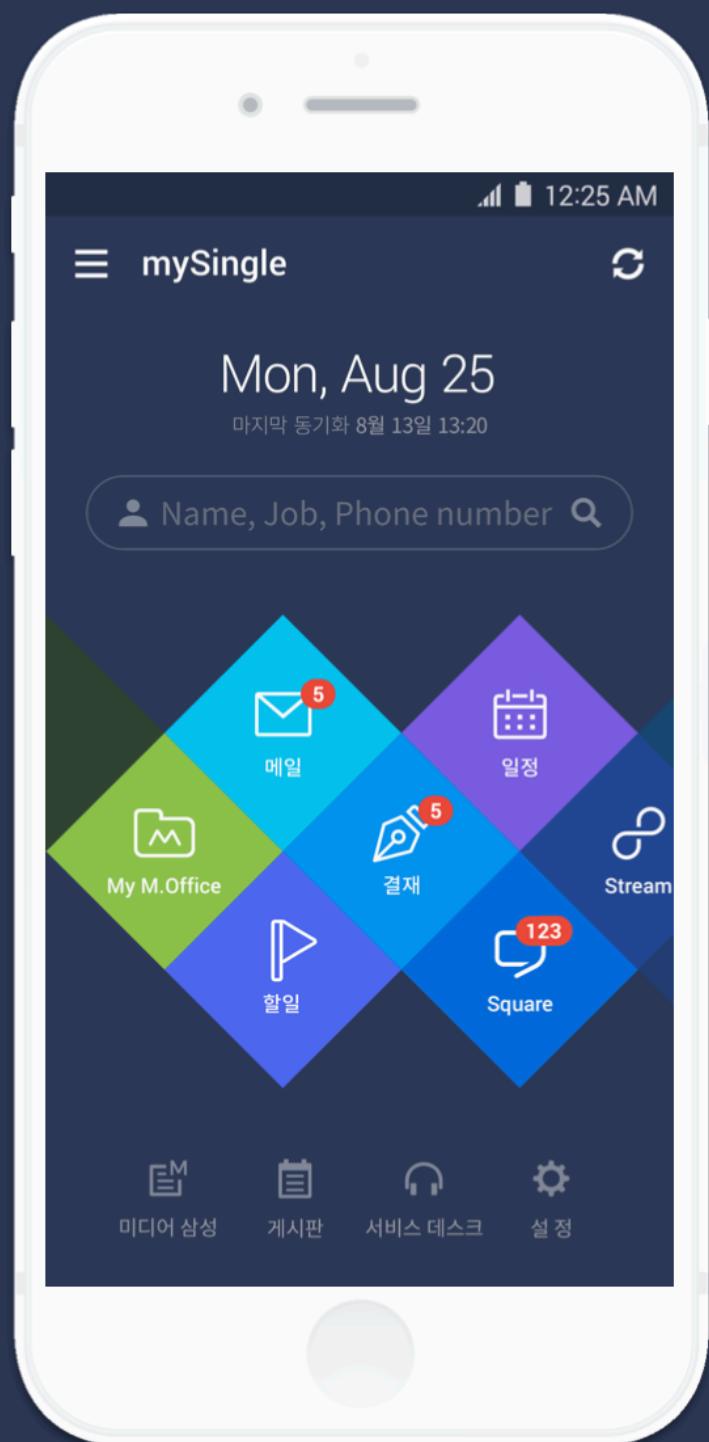
Domain  
Intranet      Platform  
Tablet, Mobile

MySingle is an intranet service used across Samsung, supporting various work-related tasks. We redesigned the service to provide personalized interfaces based on the different positions and fields of users. We attempted to minimize navigation depths and screen transitions by enabling users to accomplish tasks in the main page as much as possible. The deliverables include wireframes and interaction workflows.

1 Efficient information filtering and at-a-glance dashboard

### mySingle Main Hub

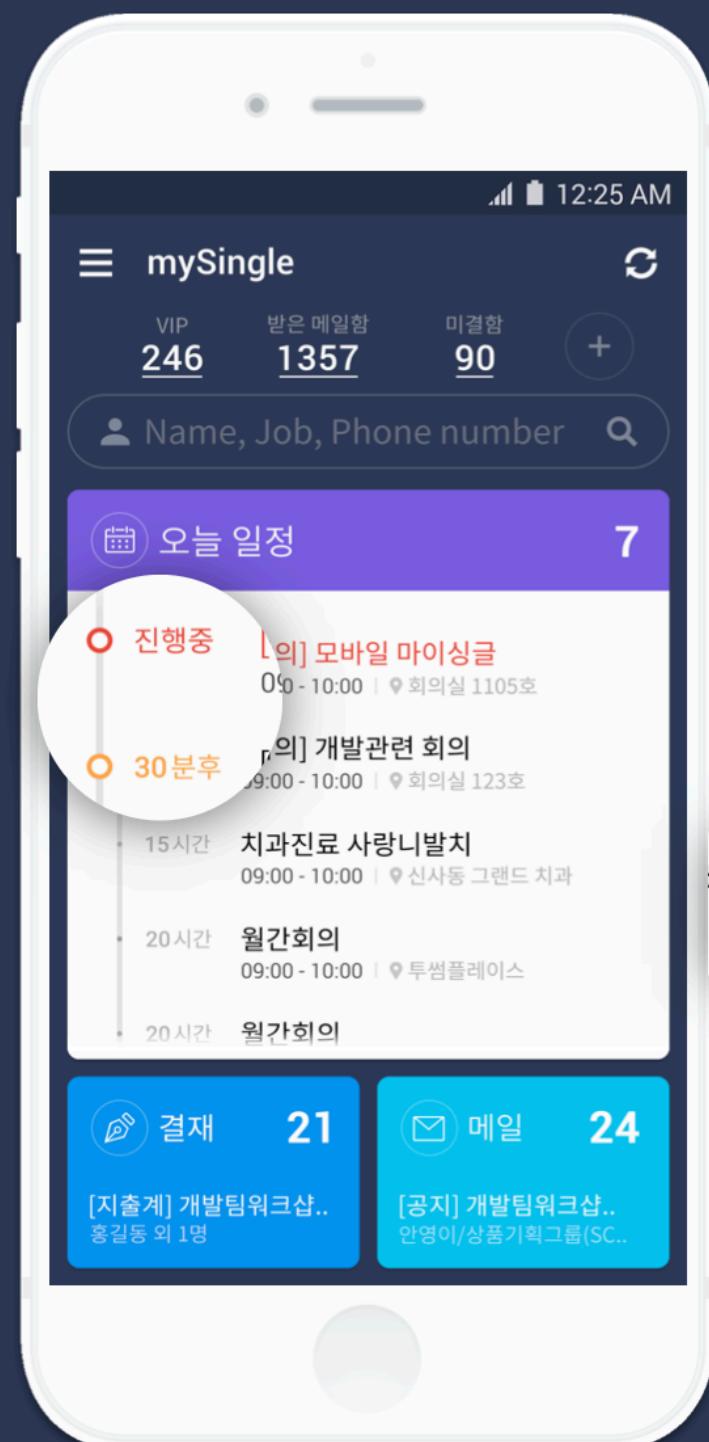
Display menu items and notifications and provide an integrated search



2 Personalization based positions and task types

### Overview task information

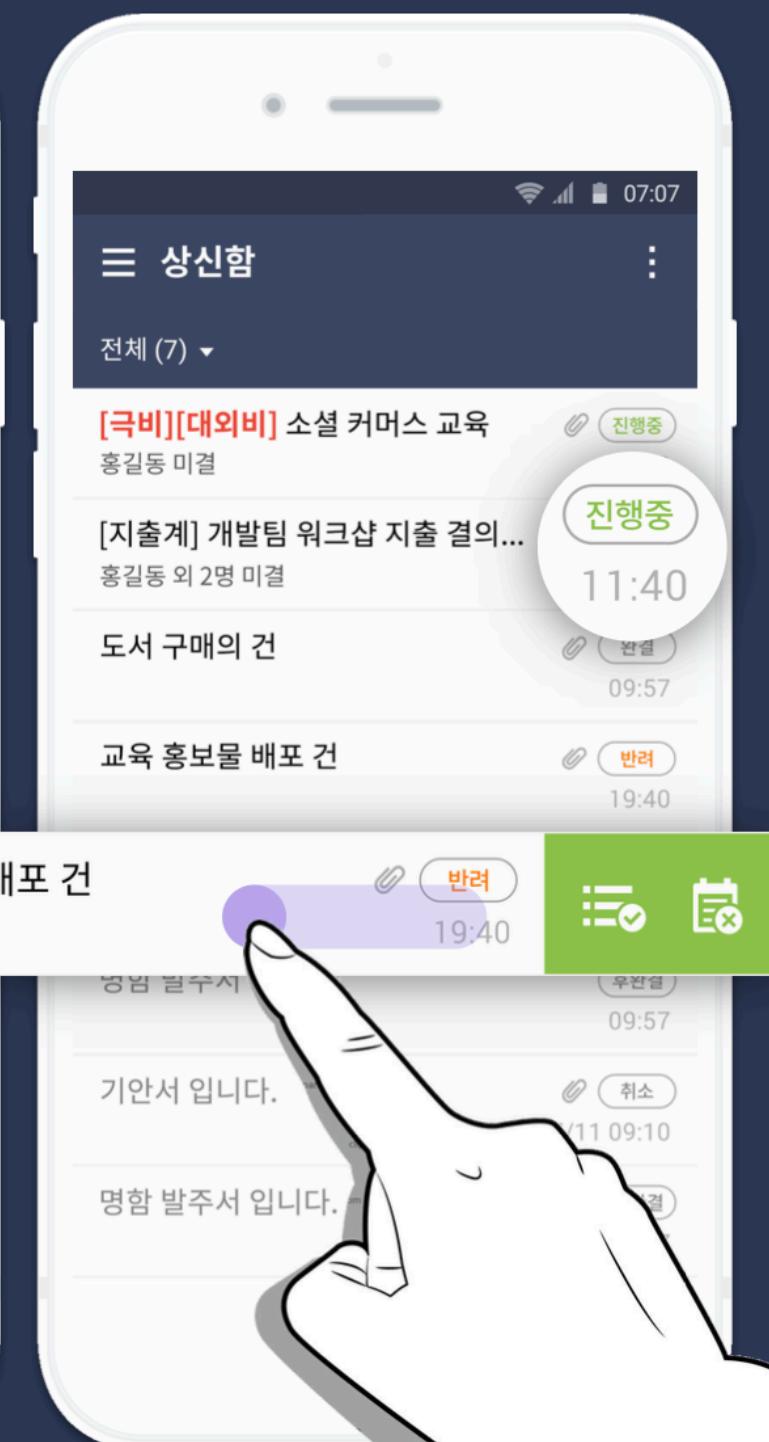
Show summary of schedule, approval, and mail information in temporal order



3 Enhanced workflows through shortcuts and previews

### Detailed task information

Present a list view of task items and support shortcut actions on demand



SAMSUNG

# 07

## Samsung Smart TV UI Guideline & UI Redesign

Professional, Nov 2016 - Dec 2016

Role  
UI design, Guideline

Domain      Platform  
Electronics    TV

We improved the user interface of the Samsung Smart TV'16 and developed an integrated UI design guidelines for future releases. At that time, multiple teams at Samsung had used different design principles for different components of the interface. We grouped UI elements based user scenarios and derived common design principles focusing on providing improved user experience.

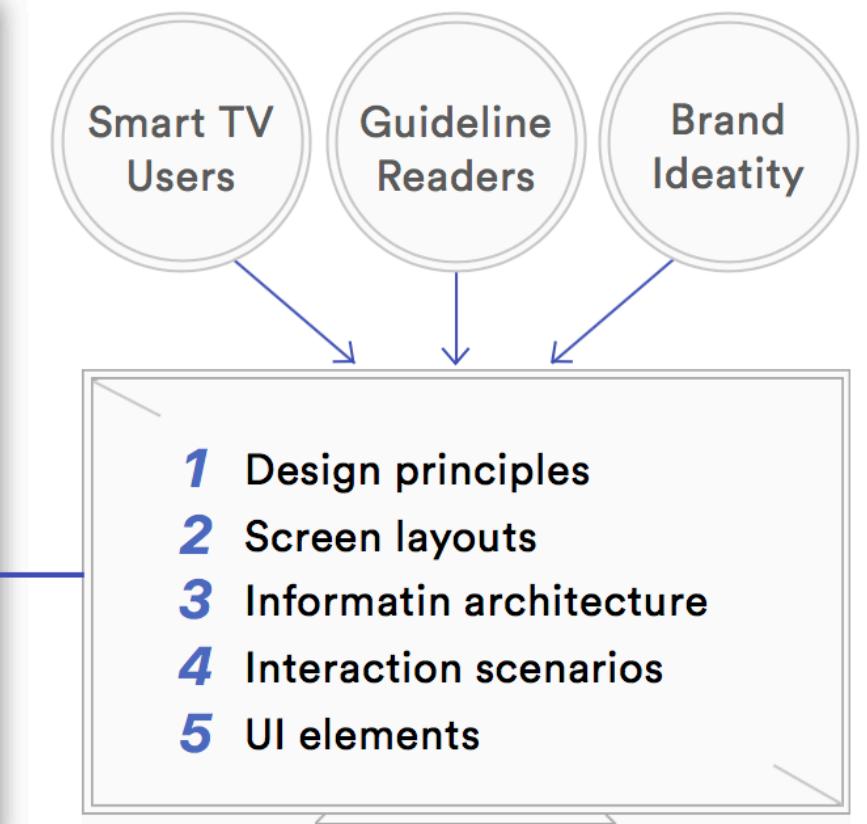
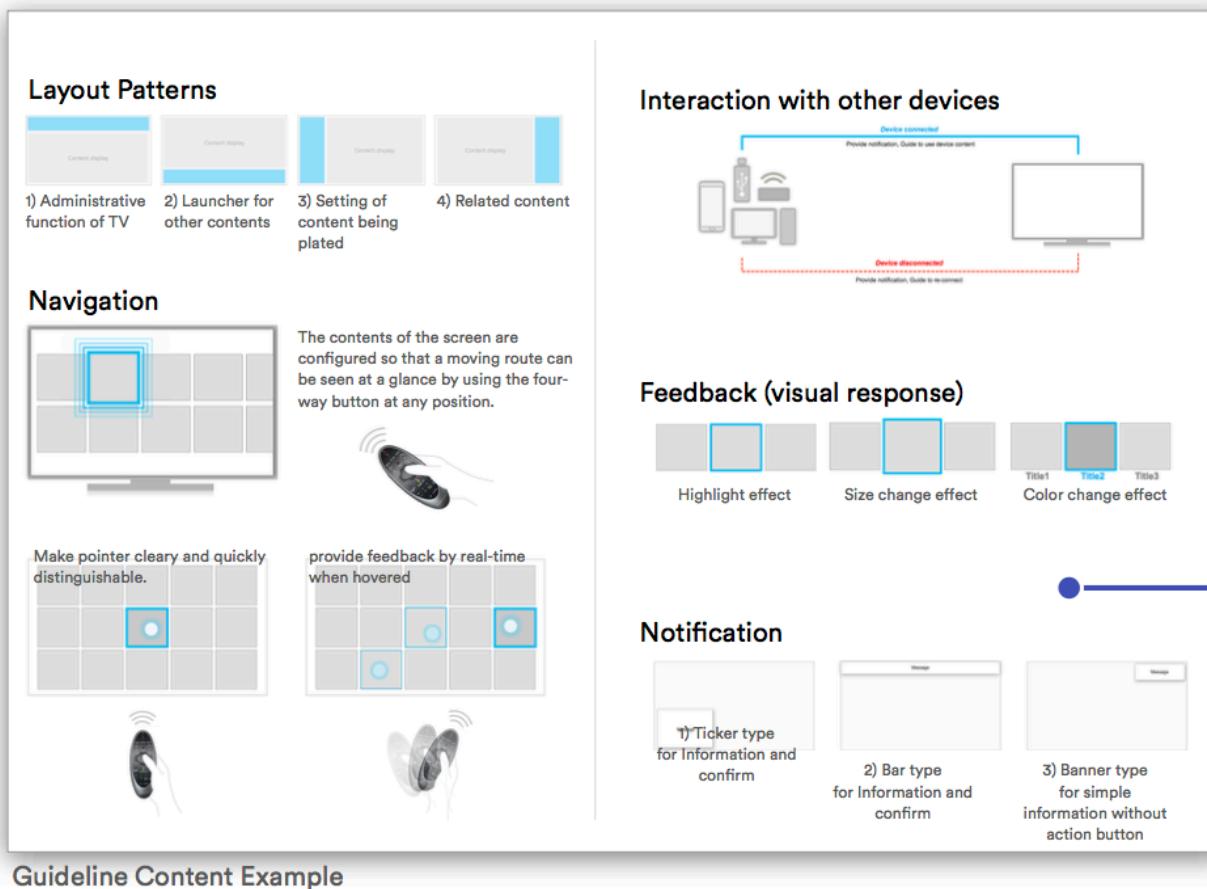
### 2015 Smart Hub UI Redesign



- 1 Improved interaction scenarios
- 2 Designed consistent UI elements

**Smart Hub**  
a single menu to access the Samsung Smart TV features from Samsung Apps to user's video or photo contents.

### Samsung Smart TV UI Guideline



# 08

## Groooovy Easy Beat Maker

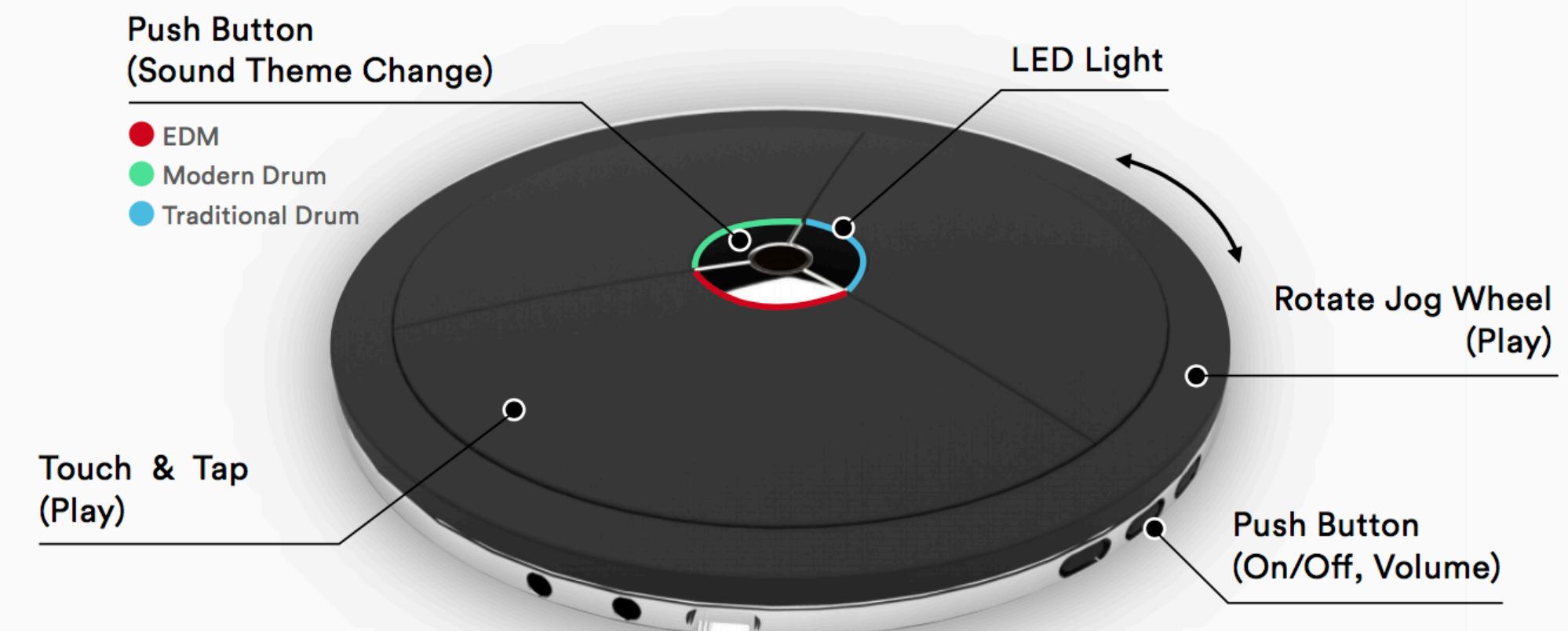
Personal (Team), Nov 2016 - Dec 2016

**Role**  
User research, Concept modeling,  
Interaction scenario

**Domain** Music      **Platform** Digital Instrument

Groovy is an easy-to-use and portable digital djembe, supporting customizable sounds with three different configurations including EDM, modern drum, and traditional drum like djembe. It can recognize beats in background music and guide tap timings. My role in this project was to define user needs and develop appropriate interaction scenarios. We developed a working prototype using Arduino and 3d printing.

User & Market Research > Ideation < Concept Modeling < Interaction Scenario < Prototyping

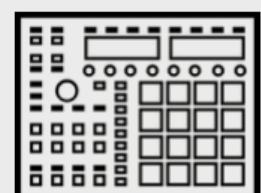


### Product Concept

Easy to use

Portable

Playful



### Launchpad

Digital instrument  
+ customizable sounds  
(make & remix)

&



### Djembe

Traditional instrument  
+ high accessibility  
+ low learning cost

### Interaction Scenario



Beat  
recognition

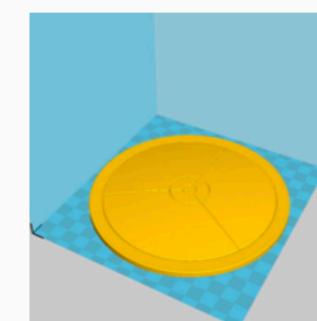


Rhythm  
Guidance



Play and  
Learn

### Prototype



groooovy

# 09

## Time Trancendence

Personal, Nov 2016 - Dec 2016

Domain      Platform  
Communication    Mobile

I started this project with the idea of supporting communication between people living in different time zones. People want to be connected with their beloved ones especially when they are separated in remote places. But sometimes they postpone sending a message or calling to avoid interrupting the others in different times. In addition, it is also difficult for them to keep aware of exact time differences. My design addresses the issues with time-aware messages to help maintain healthier relationships.

### Problem



1 My mom and I live in a different time zone.



2 I always miss mom but especially in the afternoon.

Needfinding > Ideation < Concept modeling < Wireframe < Visual design

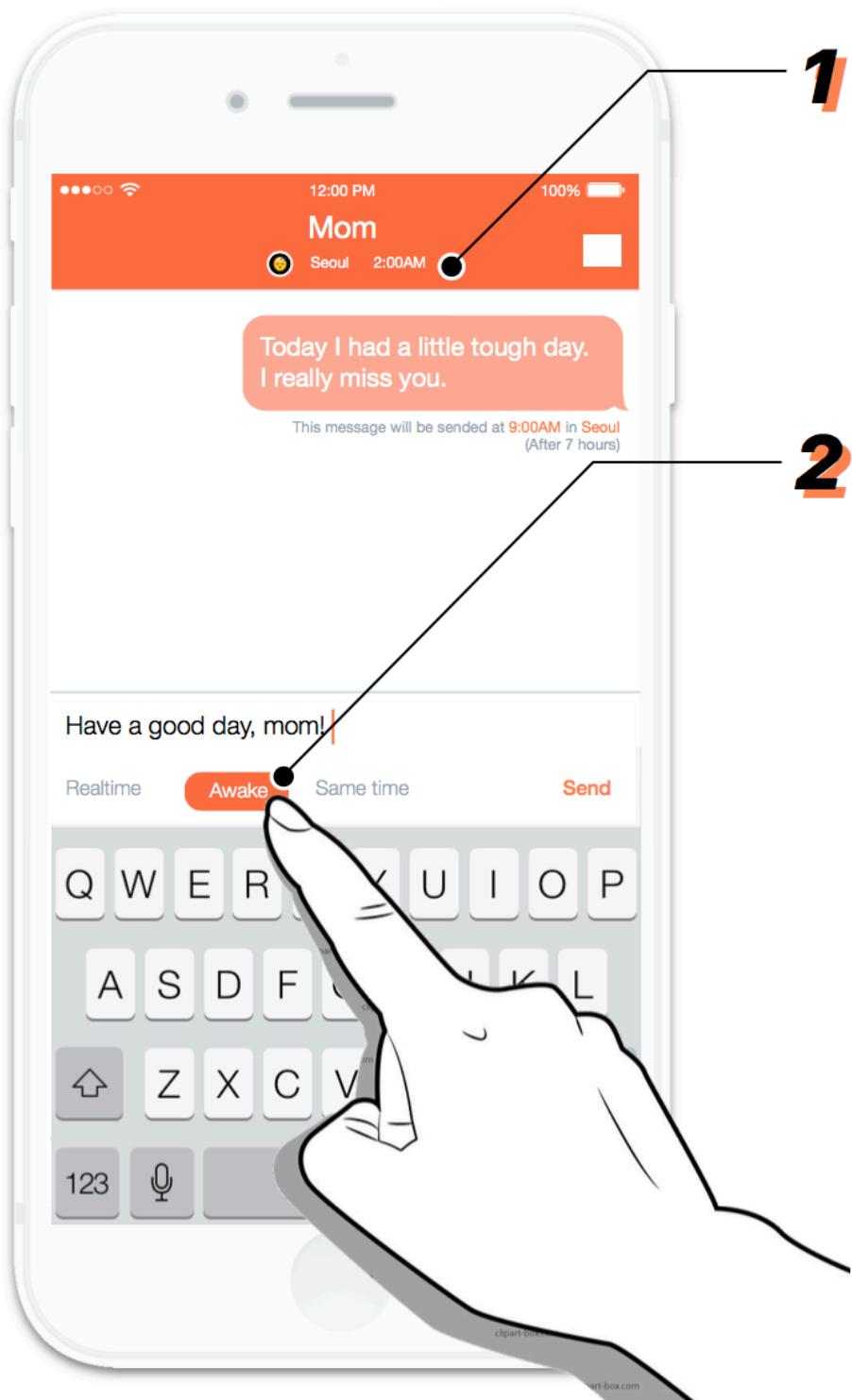


3 Mom usually in deep sleep at that time so I avoid sending a message not to wake her up.



4 My mom never know my caring love for her.

### Solution



### 1 Sleep/Awake Status & Time Information

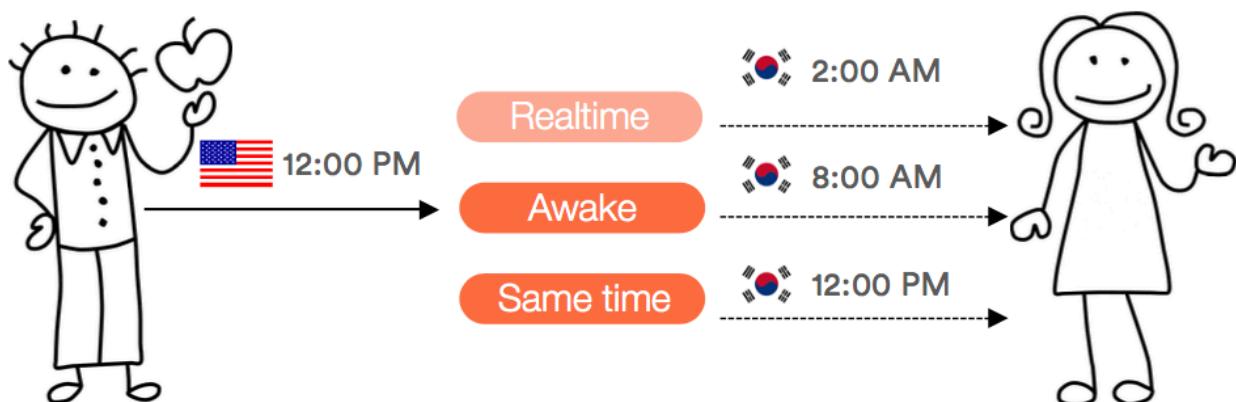
A user can check an awake status and time of a receiver before sending a message.

Sleep  Seoul 2:00 AM

Awake  Boston 12:00 PM

### 2 Sending Time Options

A user can set the time to send a message according to the status of the other person. The message will be then delivered at the specified time.

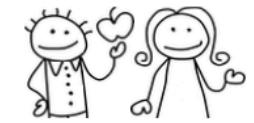


## Design Value

Expressing care without interrupting others

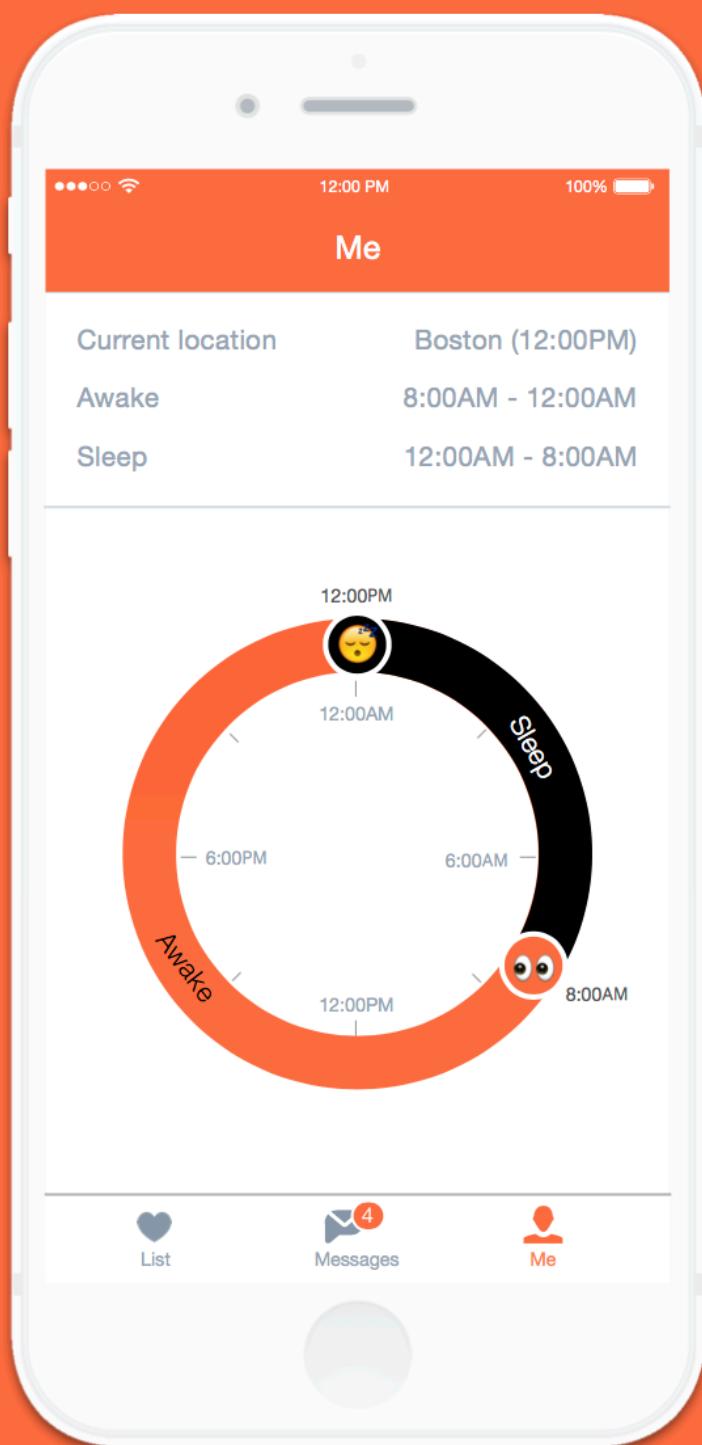
Alleviating concerns in the absence of communication

Staying connected even if being remotely located



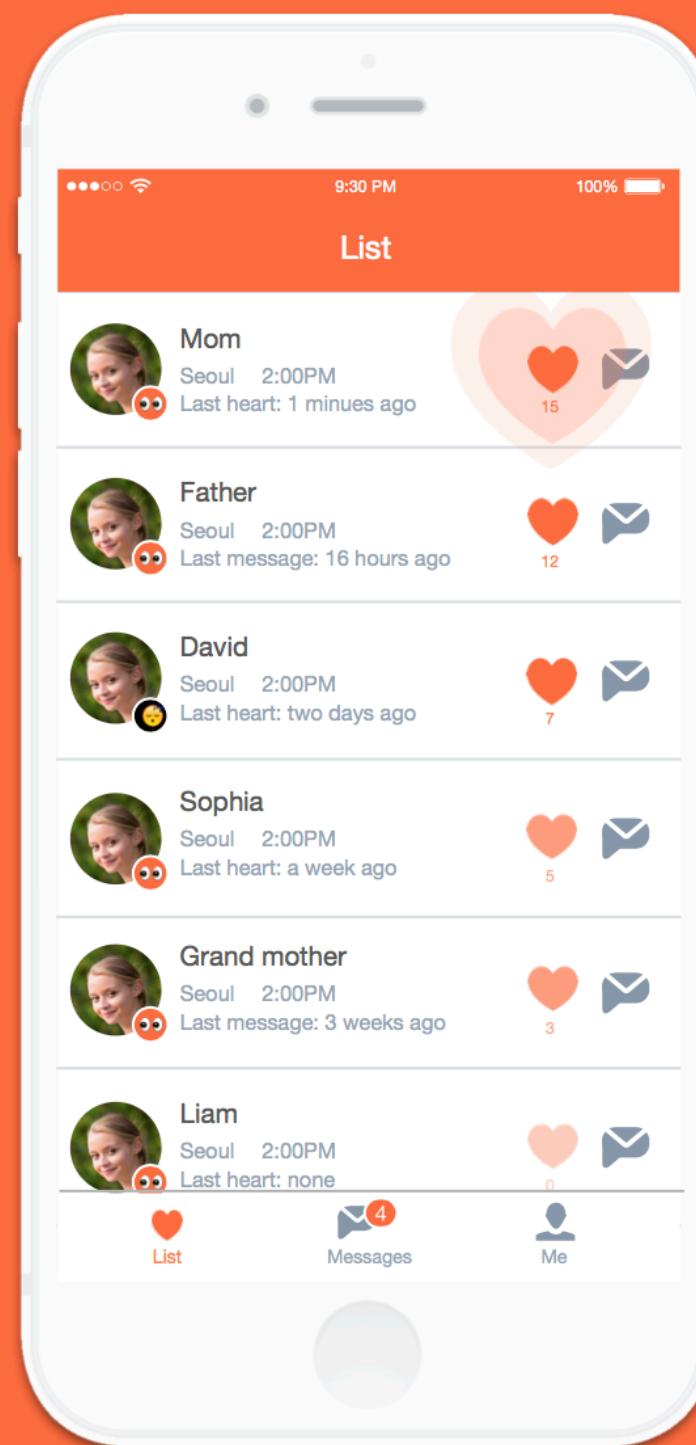
## 3 Set Up Daily Cycle

Set times when awake and when sleeping



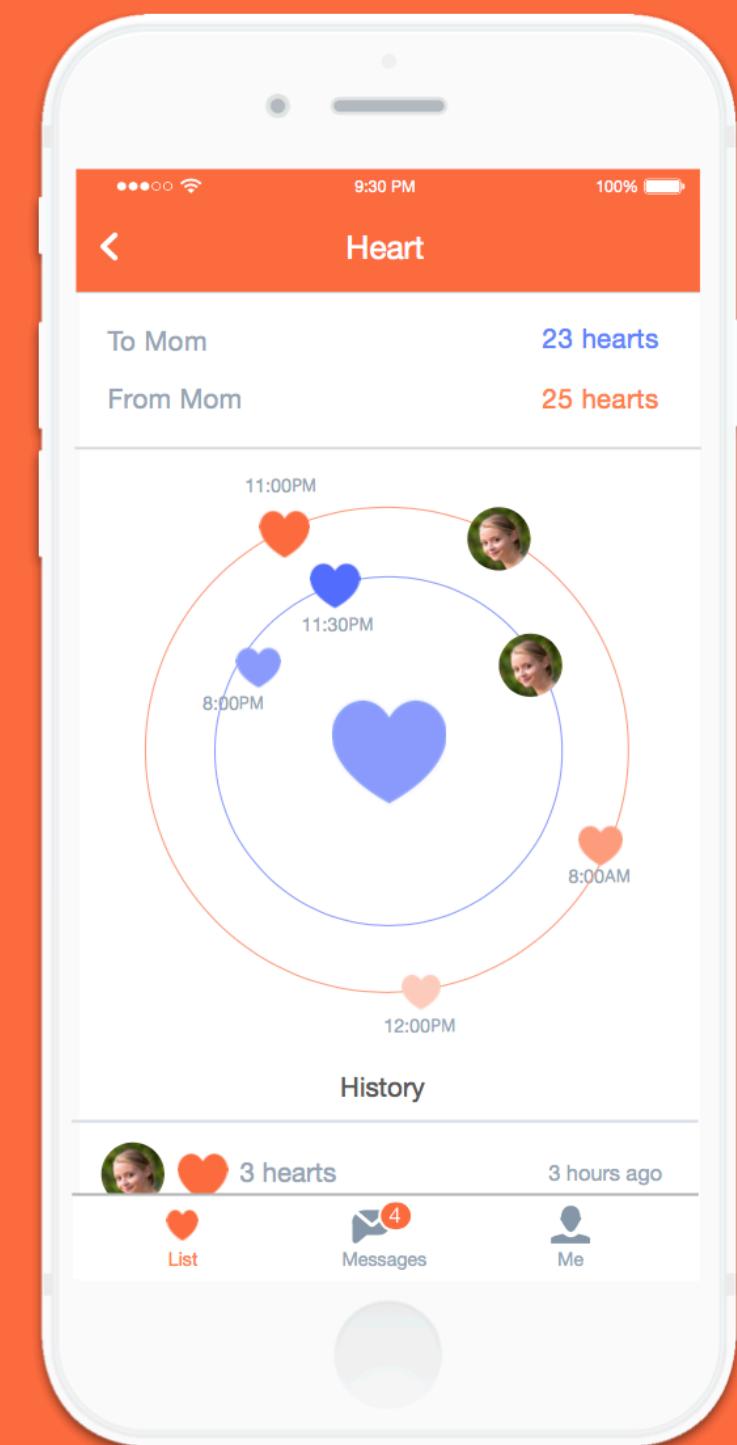
## 4 Express Care with Heart

Easily show a great love with simple clicks on a heart icon



## 5 History of Hearts

Display timelines of when users communicated hearts





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