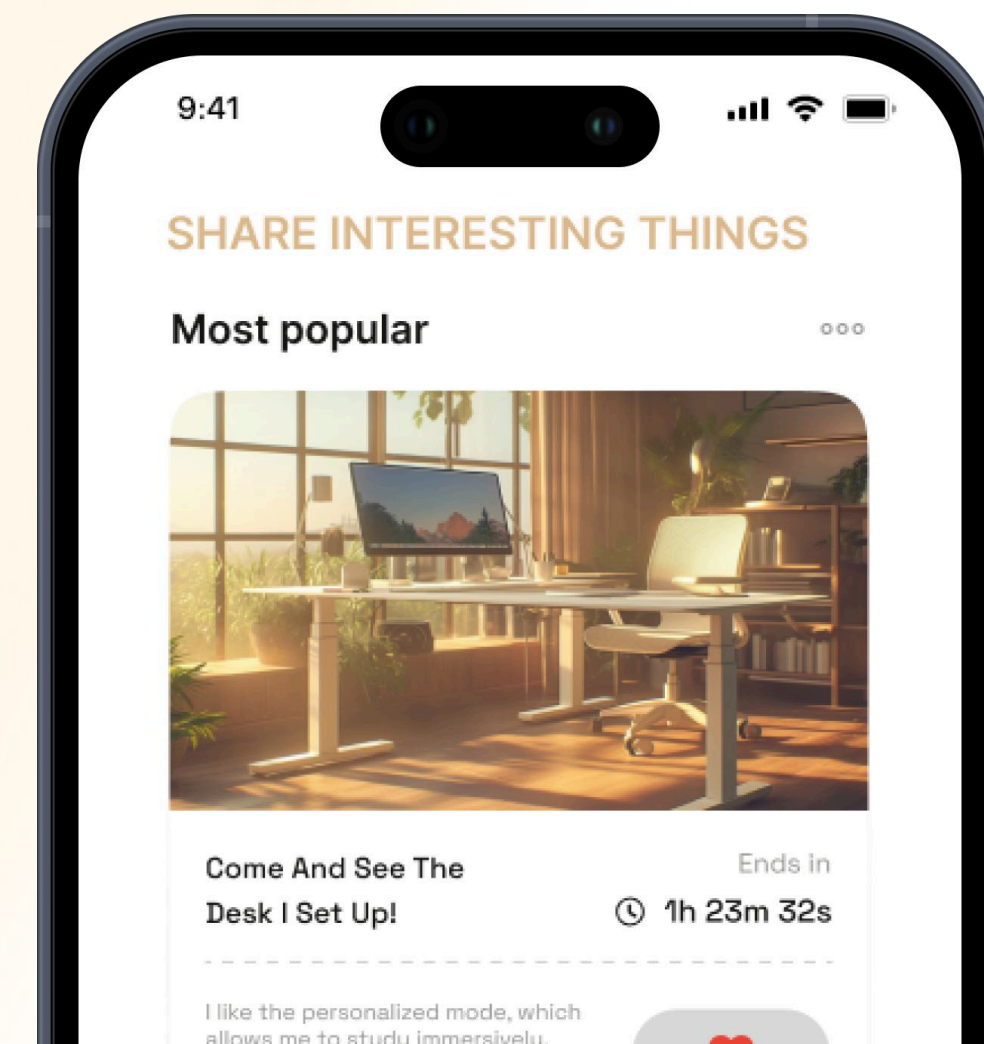
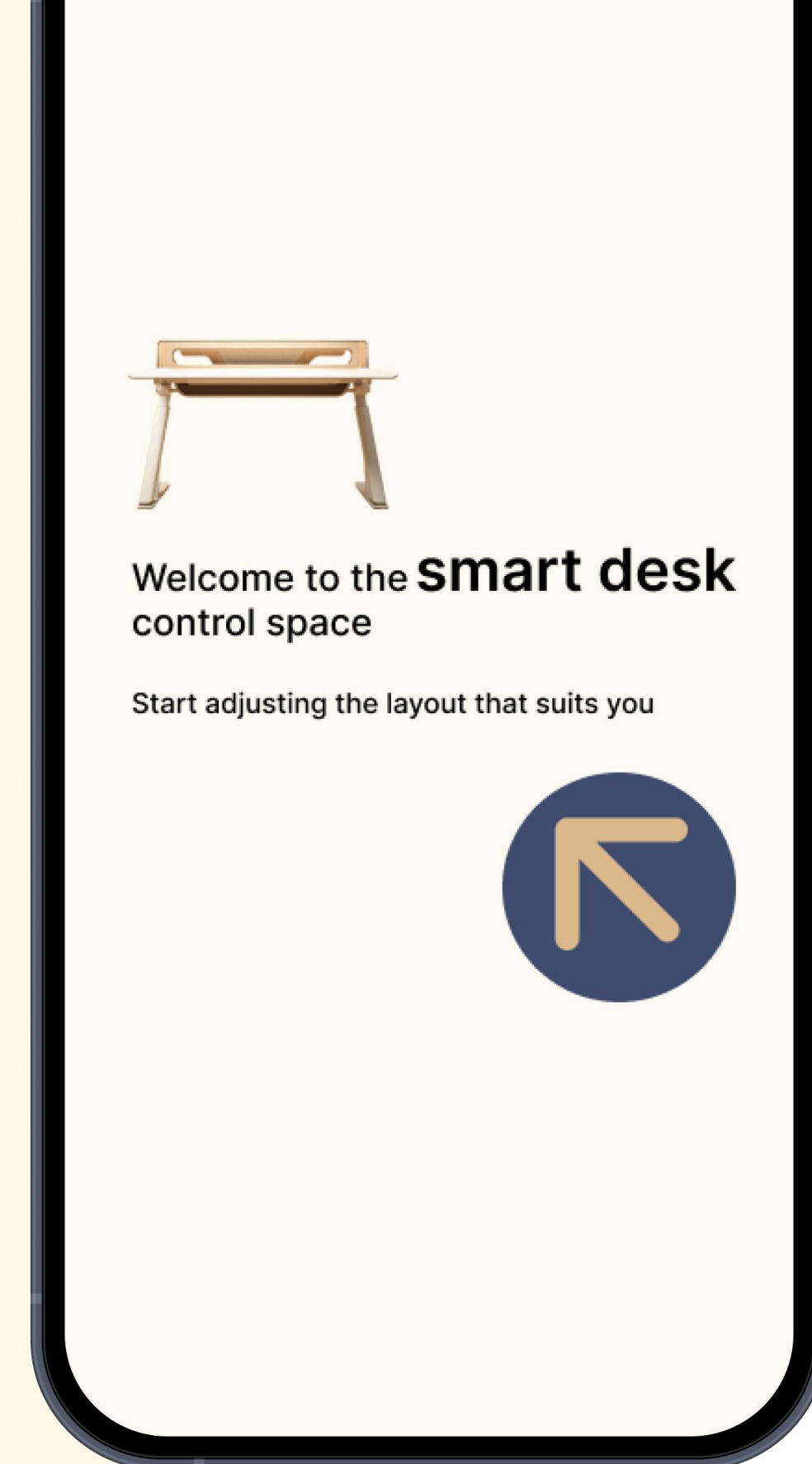
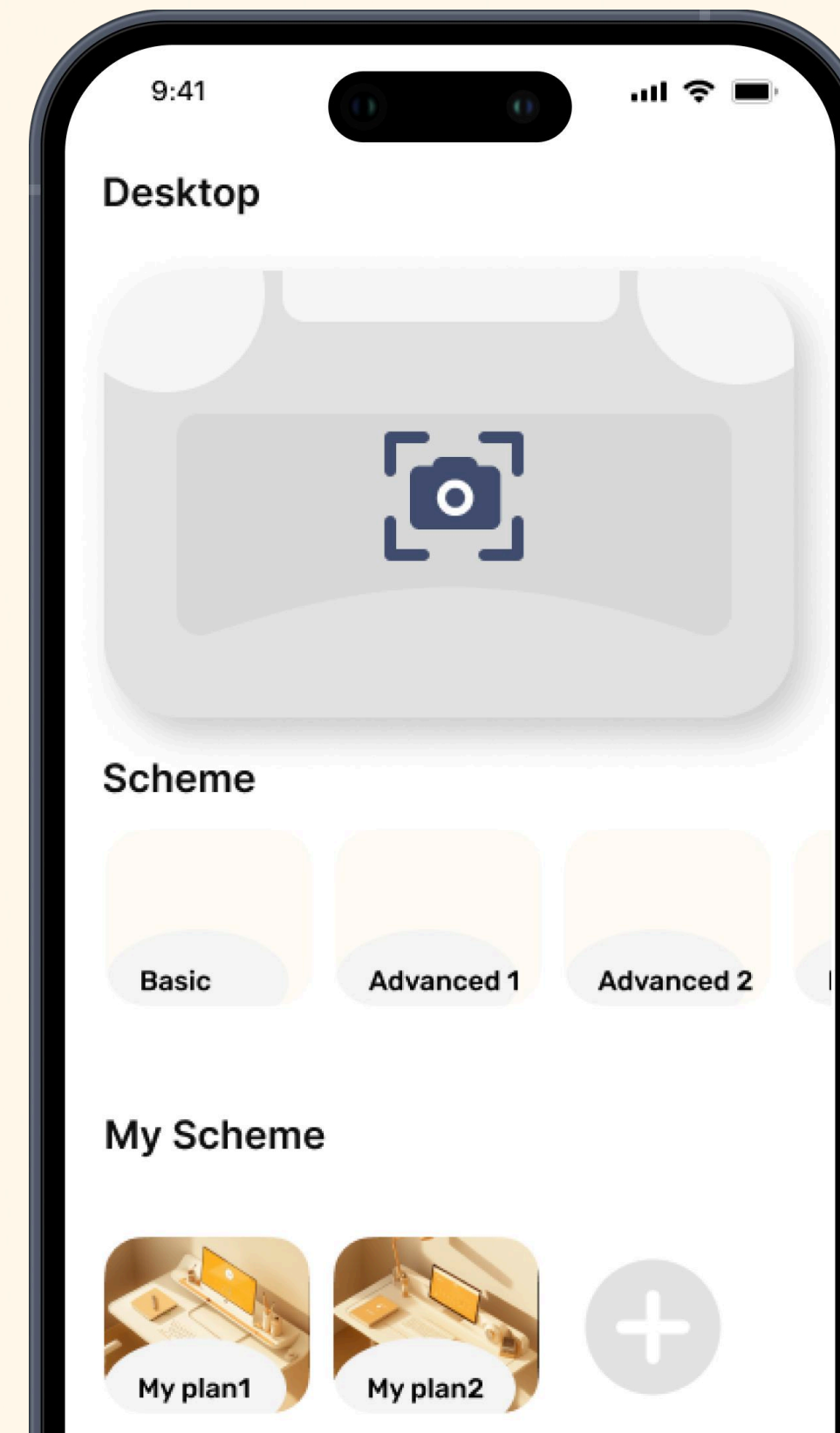
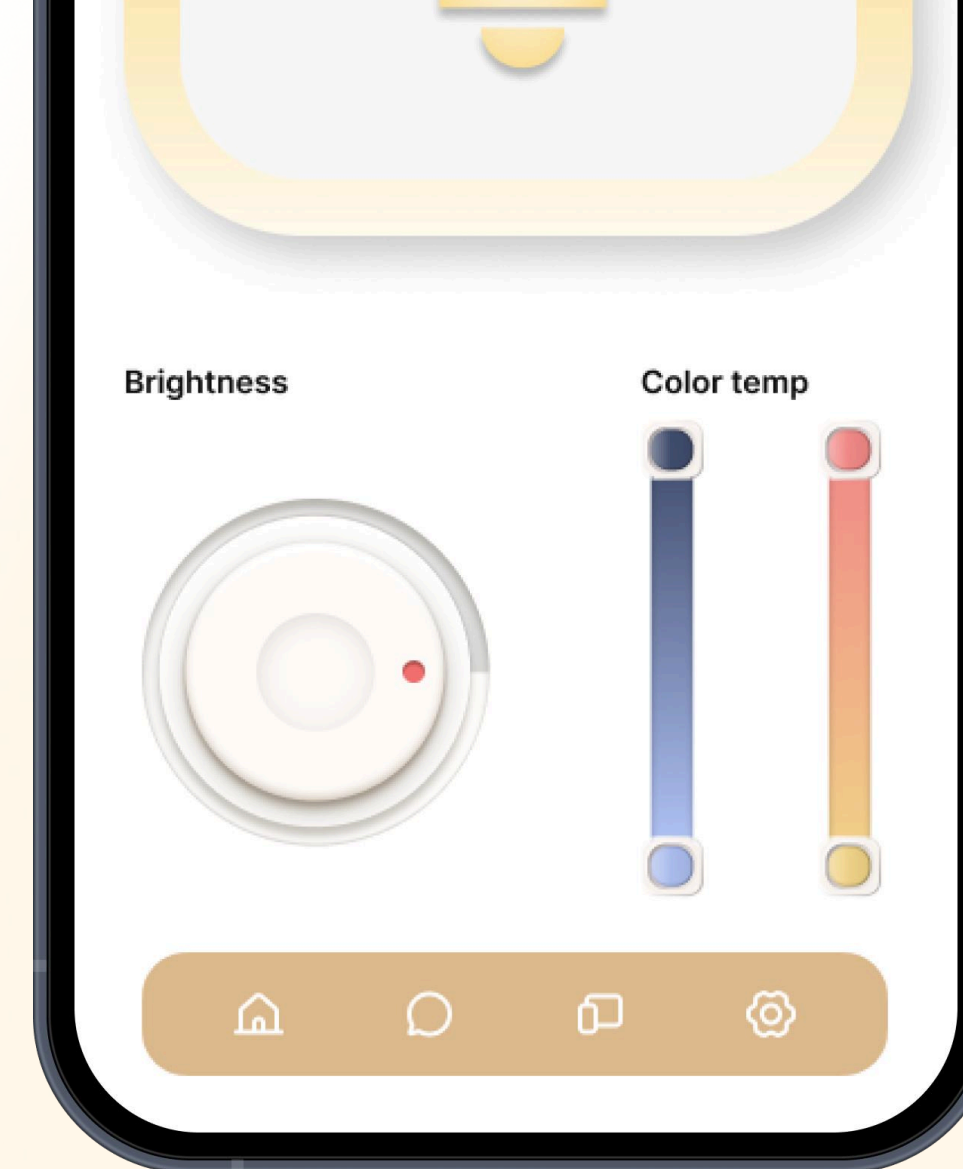
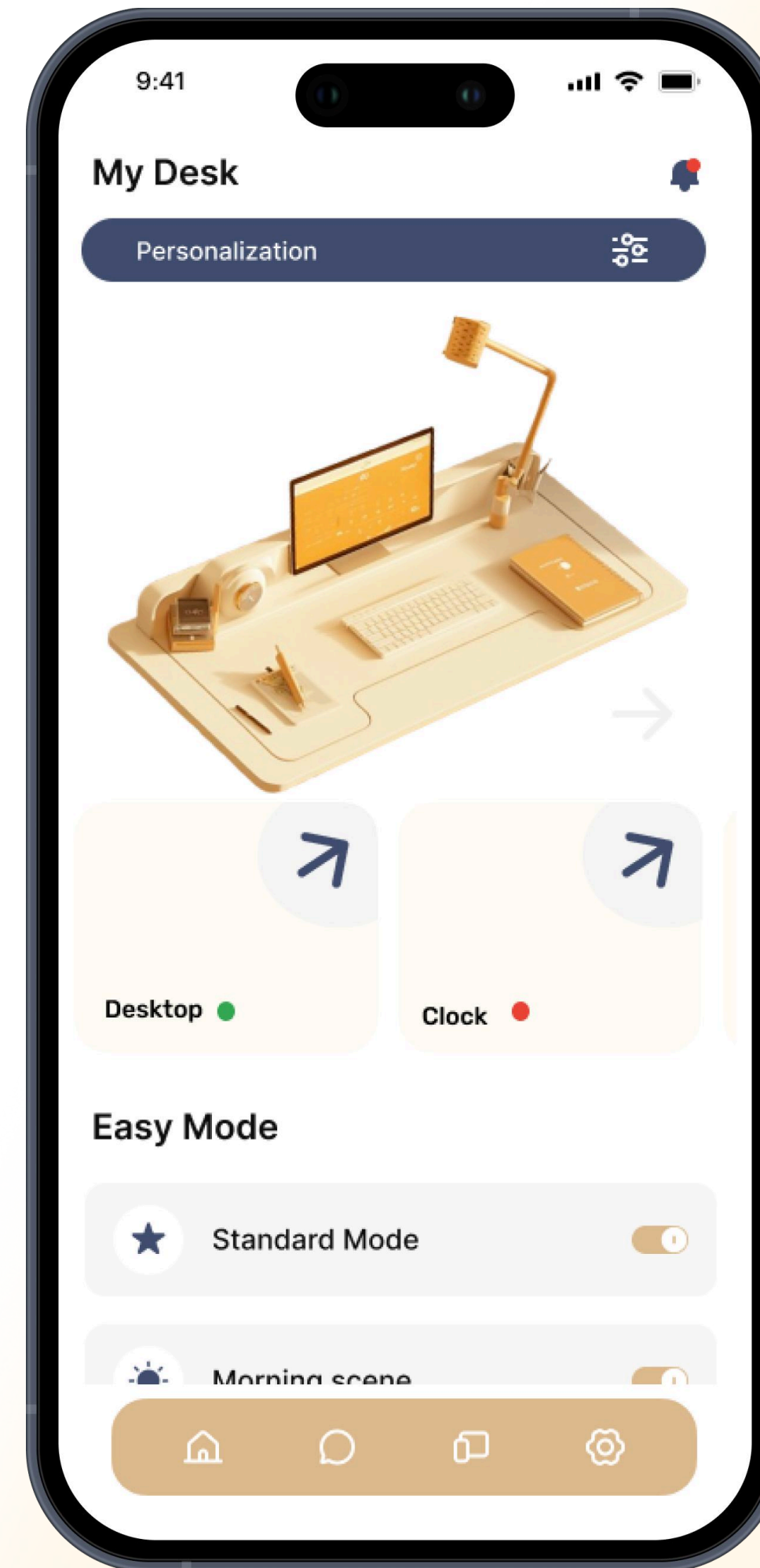




SMART DESK

An intelligent control app connected to a desk, designed to create a personalized and comfortable study environment for international students.



Output



Background Research

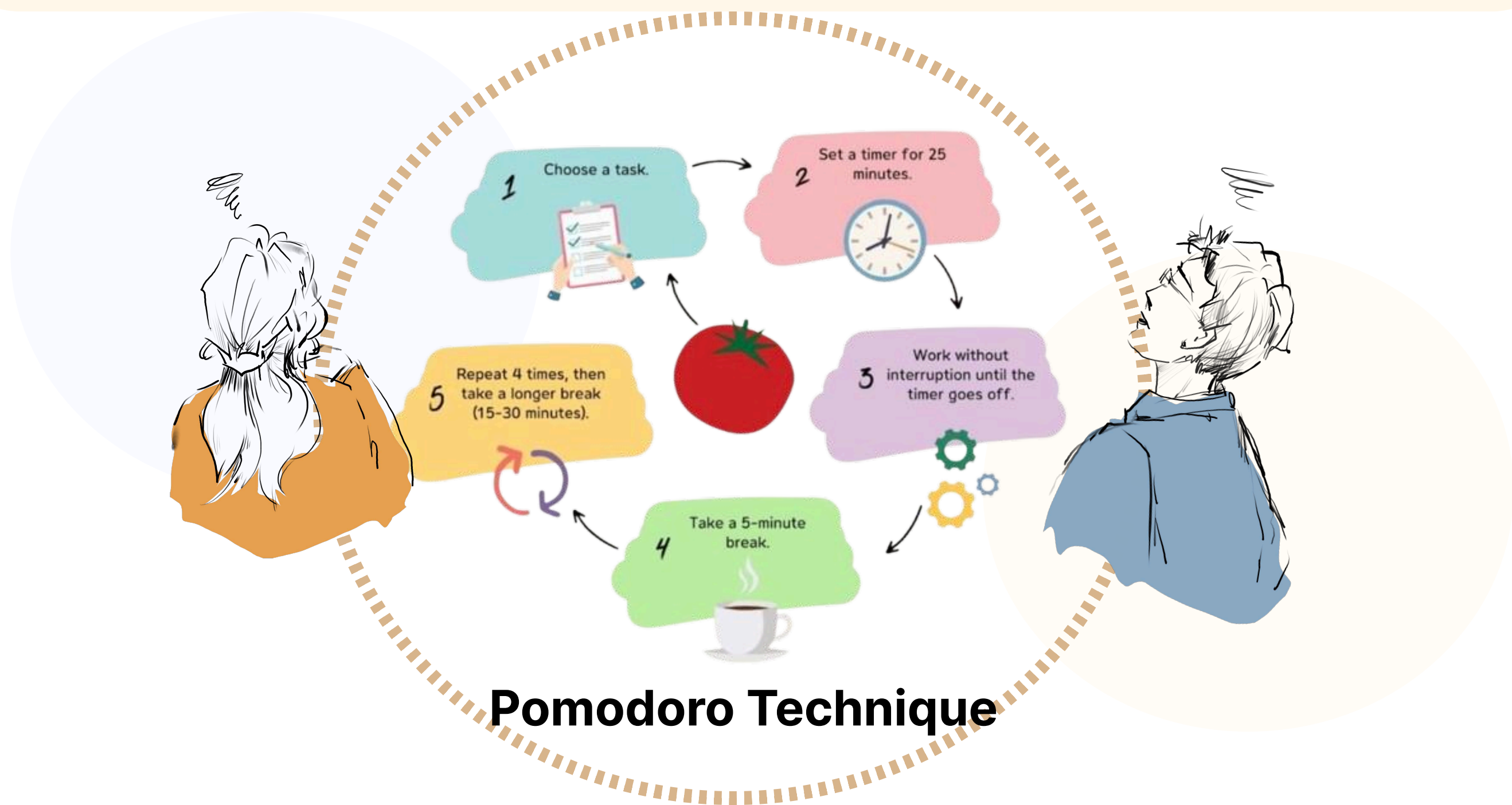
Existing Smart Home and Desk Devices

Hardware Technology:

- Smart Lighting: Adjustable brightness and color temperature for various study needs.
- Wireless Charging: Supports multiple devices, reducing desk clutter.
- Body Sensors: Monitors posture and provides sedentary reminders for health management.

Software Features:

- Scene Modes: Common modes like "Reading" and "Relaxation."
- Time Management Tools: Includes Pomodoro timers and health reminders.



Challenges and Solutions

Hardware Compatibility:

- Need support for multi-brand devices, adding complexity.

Diverse User Needs:

- Require customizable designs to address different study preferences.

Privacy and Security:

- Sensitive to data privacy; encryption and localized storage are essential.

Technical Usability:

- Design intuitive onboarding for users unfamiliar with smart devices.

PACT

People

- Diverse backgrounds: Need multilingual support (e.g., Chinese, Arabic).
- Tech-savvy but time-pressed: Simple, fast, and cost-effective solutions are essential.

Activities

- Security: Remote monitoring and alerts for unusual activity.
- Energy-saving: Control lights, heating, and schedules to reduce costs.
- Device control: Voice/app control and custom modes like "Study Mode."
- Challenges: Complex interfaces, device compatibility issues, and network delays.

Technologies

- Needs: Compatibility across brands, intuitive UI, data security, and energy-saving tips.

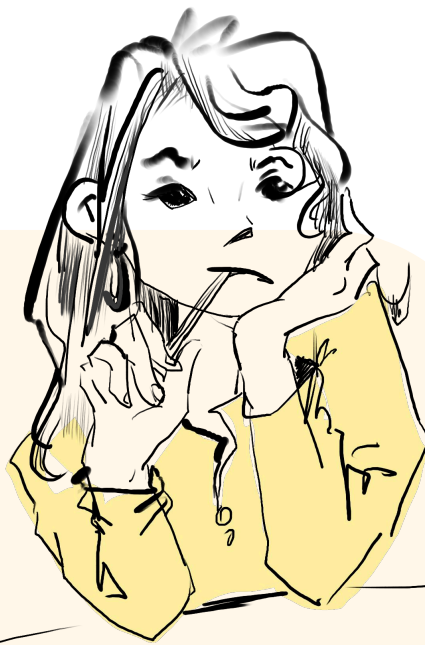
Contexts

- Rental housing: Portable, easy-to-install devices for temporary setups.
- Shared living: Privacy concerns and irregular schedules.

User Profiles

Undergraduate Student – Lin Wang

- Background: 19 years old, from China, studying Business. Lives in a shared apartment with a small and minimalistic room.
- Study Habits: Prefers studying at night, prioritizes proper lighting to reduce eye strain.
- Pain Points:
 - Distracting noise in the shared living environment.
 - Lacks time management tools and often struggles with procrastination.
- Smart Desk App Needs:
 - Automatically adjusts lighting for optimal study conditions.
 - Provides reminders for study and break intervals to combat procrastination.
 - Offers noise-canceling features or ambient sound options to improve focus.



Master's Student – Minyang Kang

- Background: 23 years old, from China, pursuing a Master's in Computer Science. Lives in a single dorm room.
- Study Habits: Attends classes during the day and codes or reads papers at night, requiring clear screen brightness and seamless device connectivity.
- Pain Points:
 - Limited dorm lighting makes late-night work less efficient.
 - Managing multiple devices (laptop, tablet, etc.) causes desk clutter.
- Smart Desk App Needs:
 - Wireless charging and seamless multi-device connectivity.
 - Automatically adjusts lighting based on the time of day to improve productivity.
 - Customizable desktop modes (e.g., "Coding Mode," "Reading Mode").



PhD Student – Mingde Li

- Background: 27 years old, from China, researching Environmental Science. Lives in a quiet, off-campus apartment.
- Study Habits: Works in the lab during the day and spends evenings analyzing data and writing papers. Requires long hours of focus with ergonomic support.
- Pain Points:
 - Prolonged desk work leads to neck and shoulder discomfort.
 - Lack of a dynamic study setup makes fatigue harder to manage.
- Smart Desk App Needs:
 - Ergonomic reminders for posture adjustments or breaks.
 - Immersive modes to block distractions and maintain focus.
 - Focus time tracking and analytics to monitor productivity.



Commonalities & Smart Desk App Needs

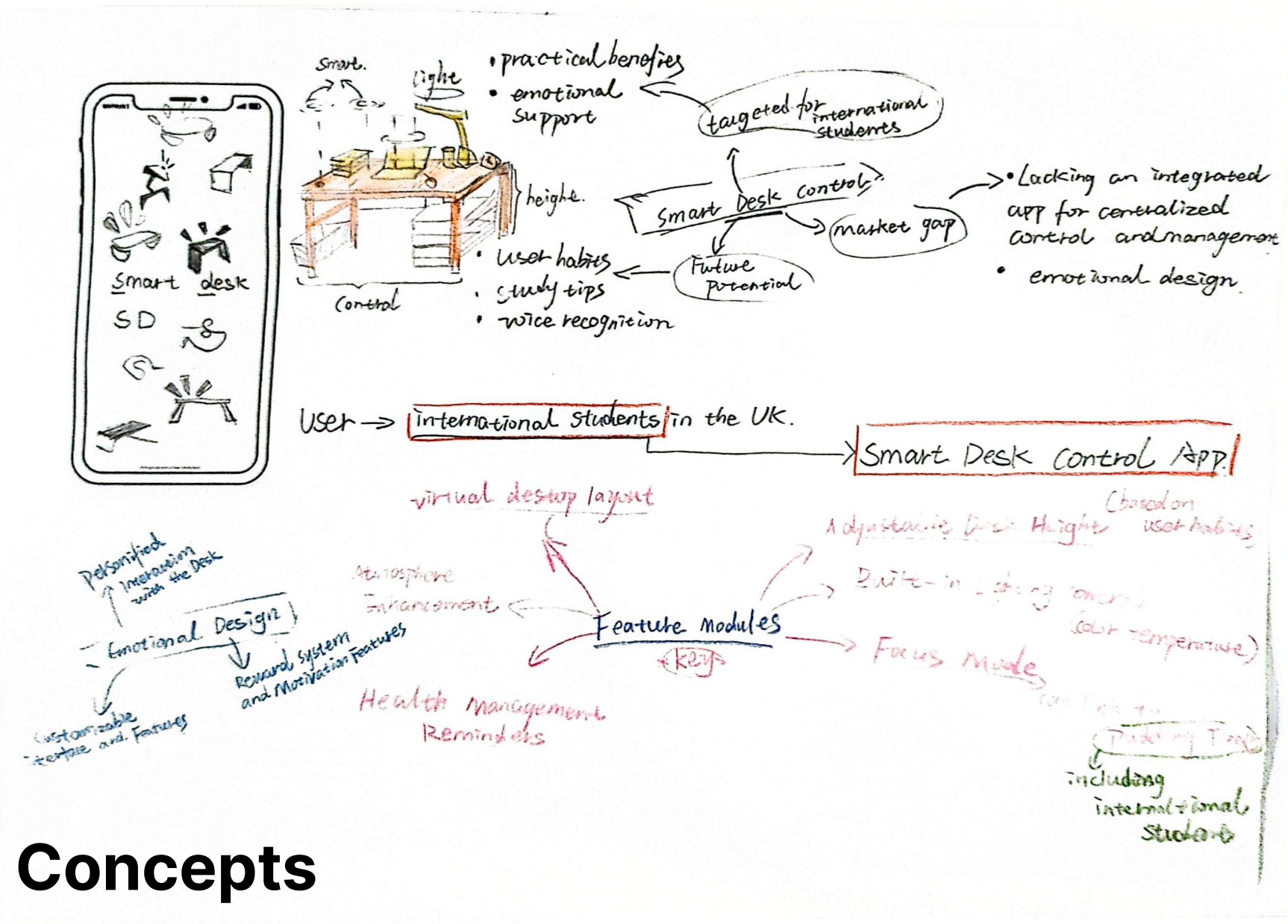
Diverse Study Environments:
Students study in shared apartments, dorms, or private spaces, requiring flexible setups.

Focus and Efficiency:
Academic pressure necessitates tools for enhancing concentration and saving time.

Health and Comfort:
Long study hours lead to fatigue, making ergonomic and health-supportive features essential.

Personalized Features:
Different disciplines and habits require customizable settings (e.g., study modes).

Brainstorming



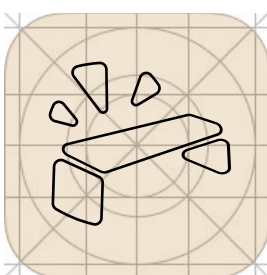
Concepts



Dark Mode



Light Mode



Smart Desk

The desk is made up of geometric shapes, and above it is a wireless network that connects the desk and the mobile phone. It is intuitive and interesting.

Product concept drawings



Virtual concept smart desk, with built-in alarm clock, touch screen and desk lamp. The built-in products are connected on the same track of the desktop and can be moved flexibly. The desk can be raised and lowered and the mode can be adjusted. The purpose is to create a user-friendly and learning atmosphere.

Style

System: iOS17

Font:

Color:

Bold 32px Inter

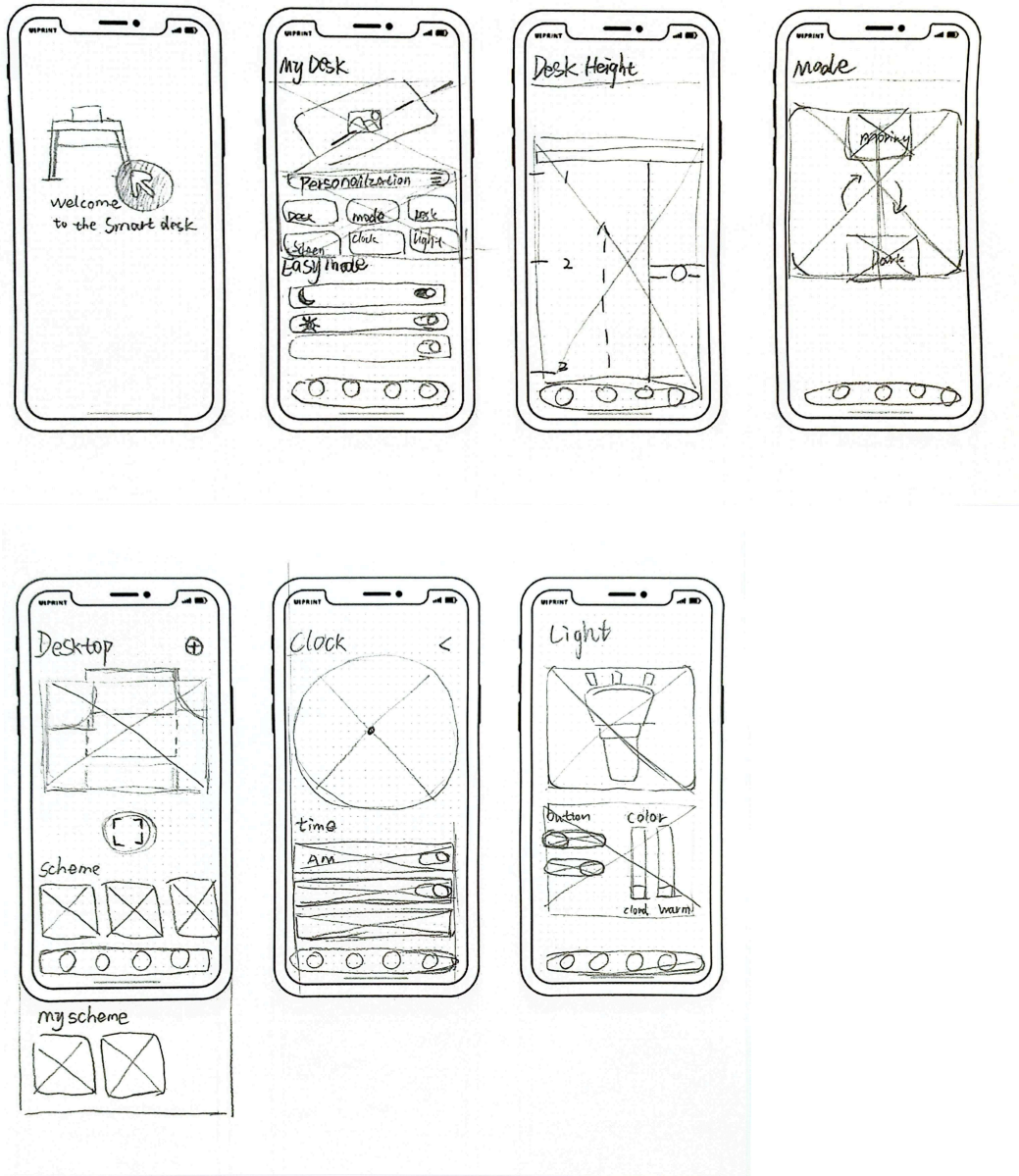
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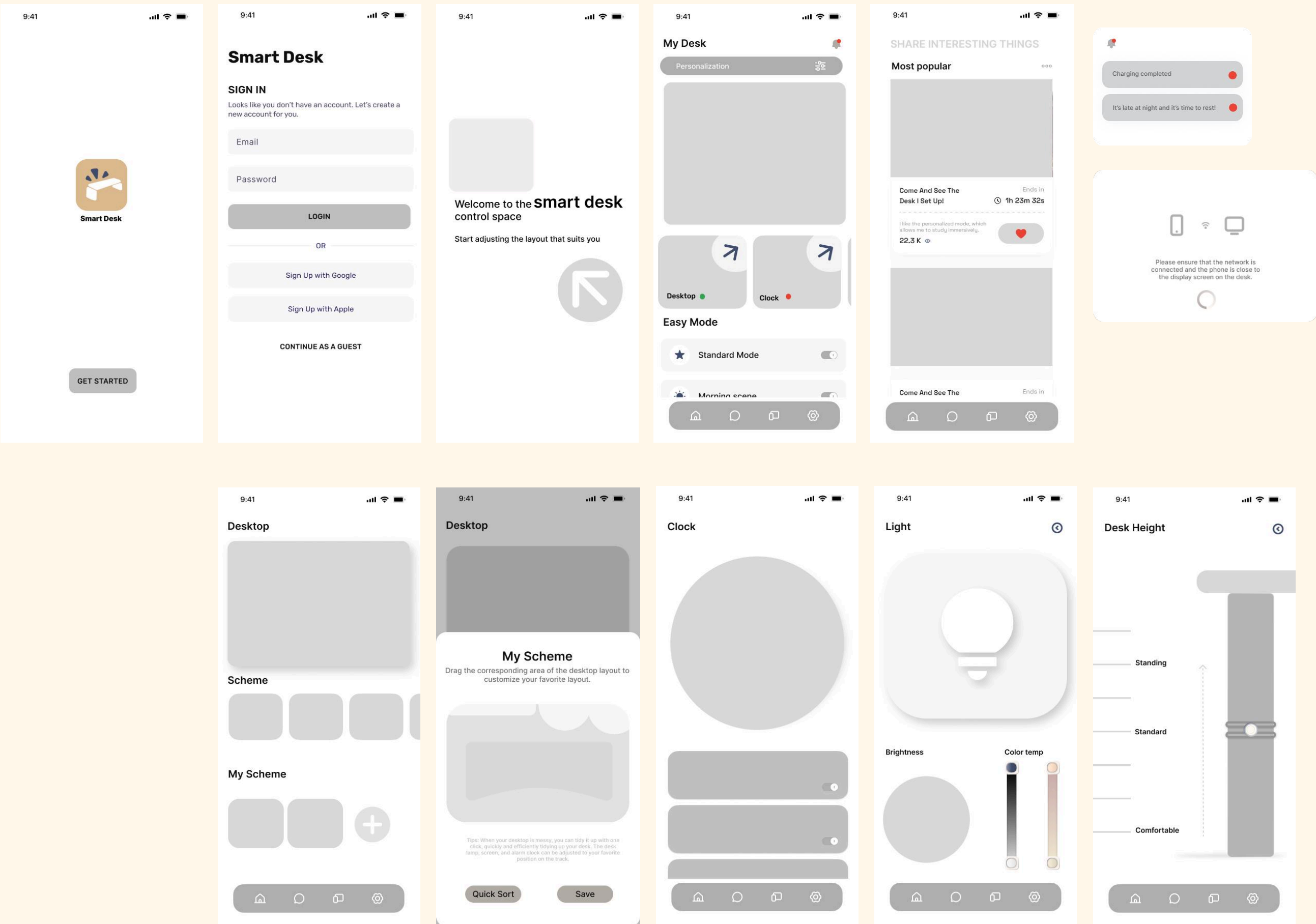
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Draft drawings

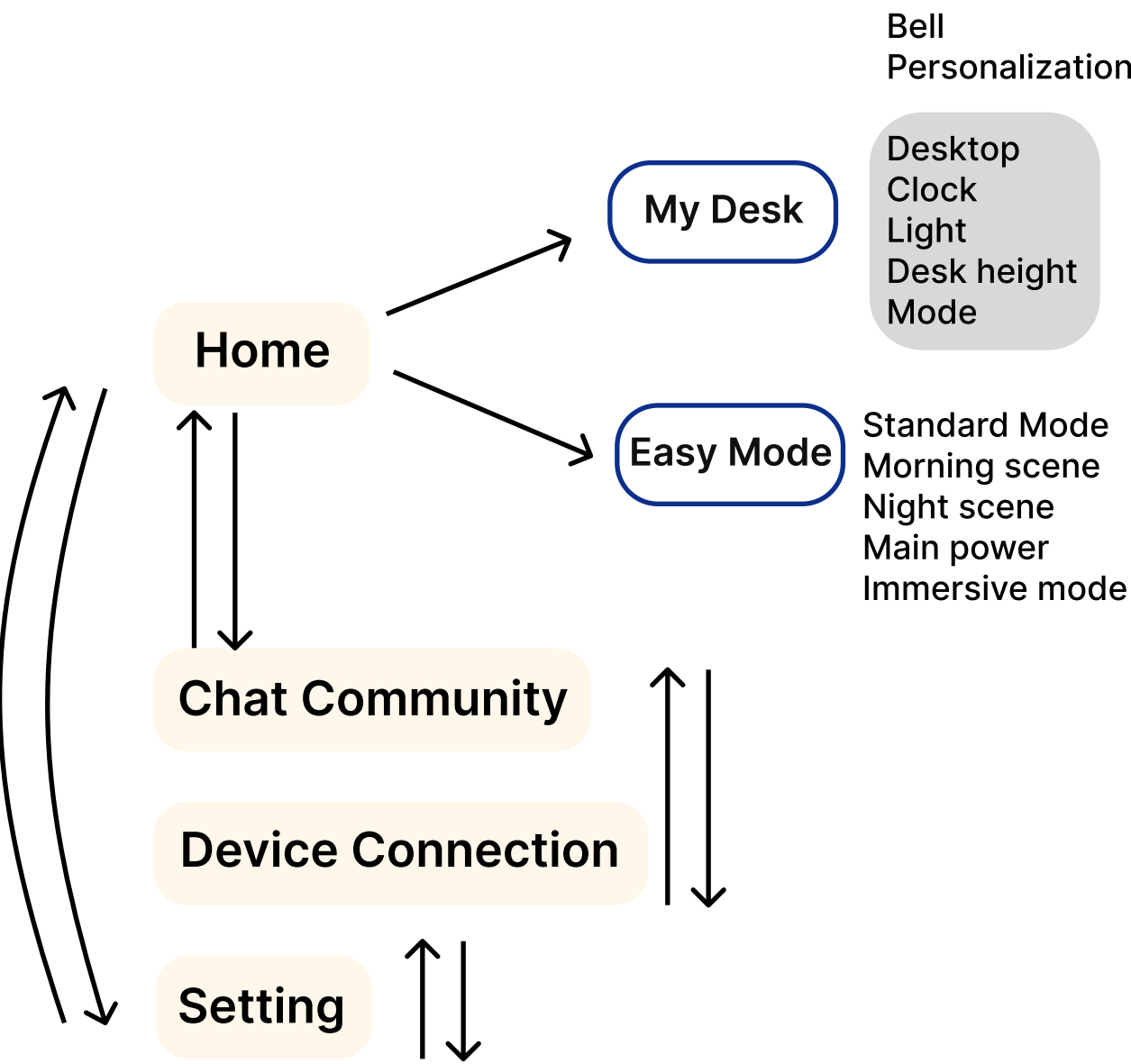


low fidelity

After determining the overall framework, the final user flow was determined.



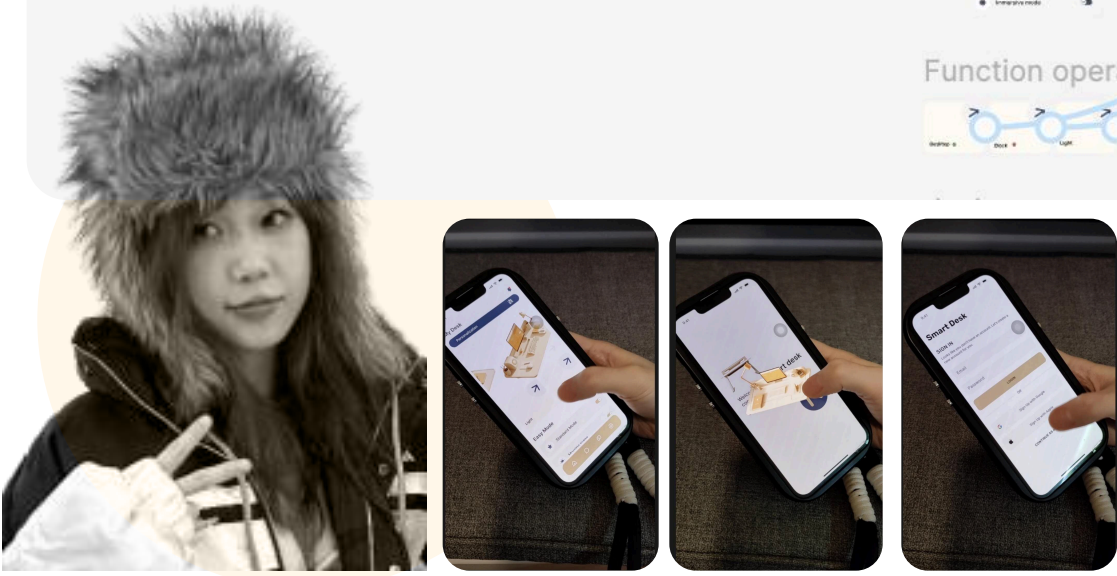
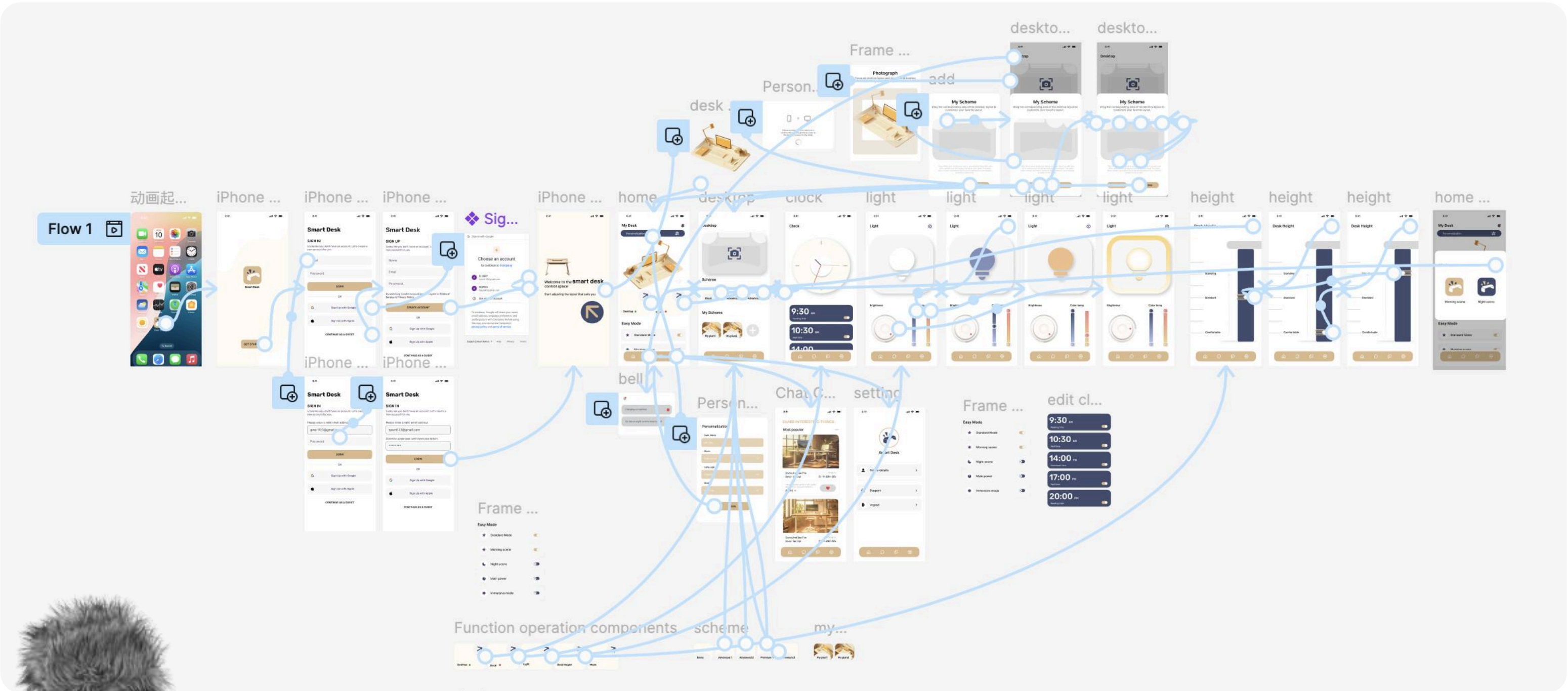
User Flow



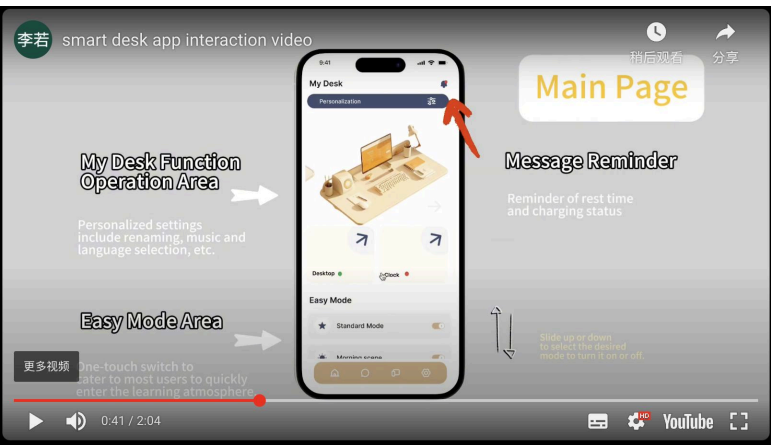
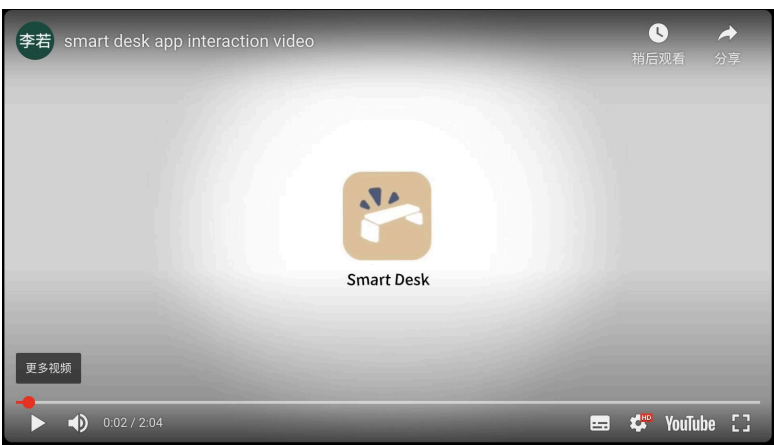
Icon



User testing and feedback



"The app's layout is easy to navigate, and I can quickly access my study presets."
"I love how I can customize the app for my specific needs, like setting my preferred lighting for reading or productivity."
"Adding step-by-step video guides would make the setup much easier."



Users generally appreciate the interface design, easy mode, and five key features of the Smart Desk App. However, they hope for improvements in the initial setup process and language support. They also look forward to seeing such a product on the market.