

MX Touch Screen Module

Project Title:

User Interface Design for Smart Home Control Panel (LVGL-Based)

Project Description:

We are seeking an LVGL designer to create a user interface for a smart home control panel.

Please note: this project is focused solely on the design aspect, not the development or implementation of functionalities.

The user interface will be designed using the LVGL (Light and Versatile Graphics Library), and should be compatible with LVGL's simulator environment. There is no dependency on any specific MCU hardware, your work can be fully developed and tested independently of the final embedded platform.

A reference document containing sample interface images and layout guidelines will be provided to help align the design with our desired look and feel.

Key Points:

- LVGL-based GUI design only (**no logic implementation required**)
- Must be compatible with the LVGL simulator
- Hardware-agnostic (does not depend on specific microcontrollers)
- Reference images and design requirements will be supplied

We're looking for someone with experience in embedded UI/UX design, ideally with prior work involving LVGL.

Core features:

- Header showing date, time, and outside weather
- Reusable components (components can appear multiple times)
- Scrollable list of service items (with + / – to set quantity)
- Button to place order, with optional confirmation modal
- Components with visual state indicators (e.g., blue = active)
- Return/back button to Home Screen

 We expect to receive:

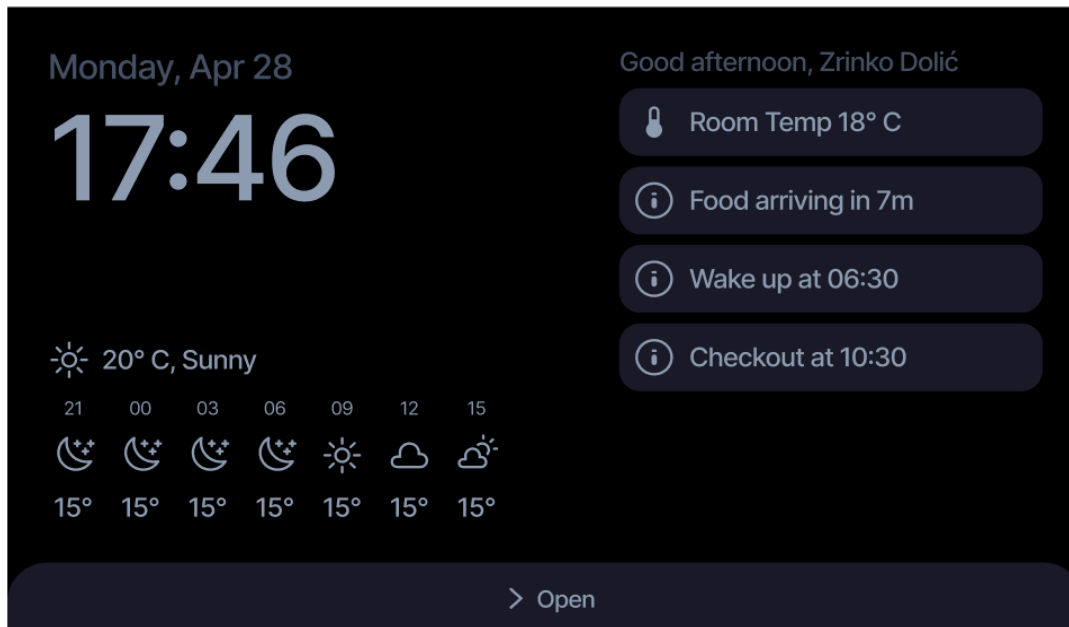
- Fully working source code (with comments)
- Instructions for building/running the project
- Basic documentation for modifying UI or items

We will be available for questions and testing.

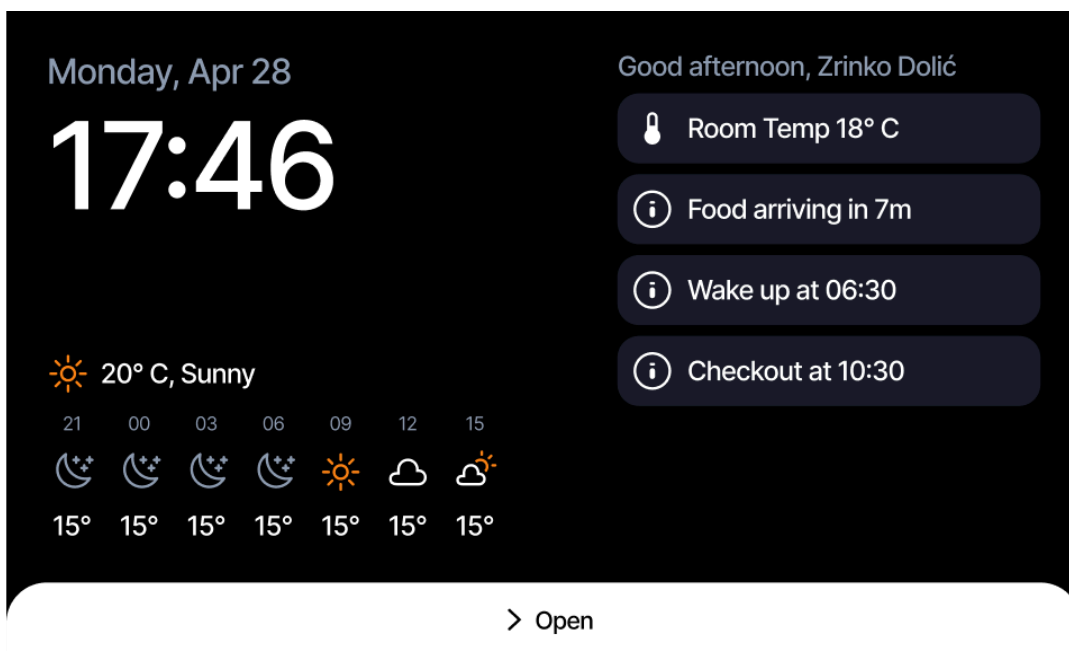
Repository of Project that should be followed:

GUI Design:

1. **Lock screen**

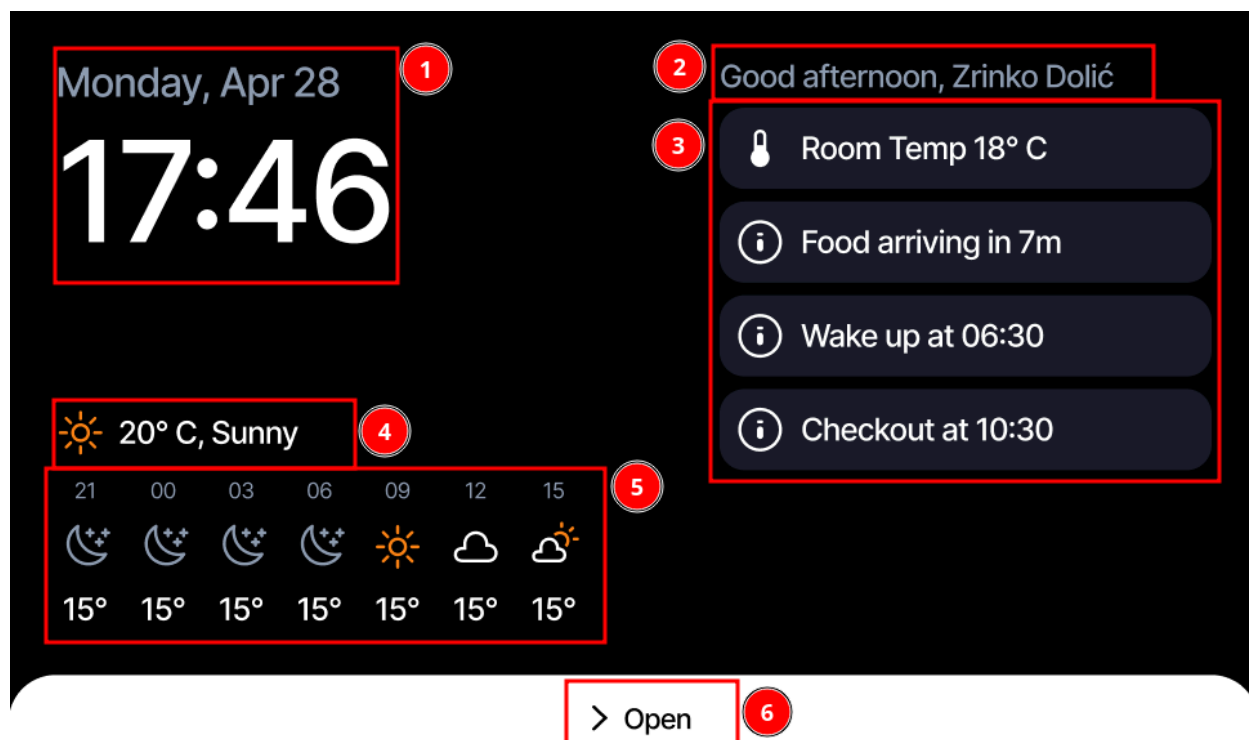


Picture 1. Inactive (dimmed) screen - no bright colors



Picture 2. Active screen - not dimmed

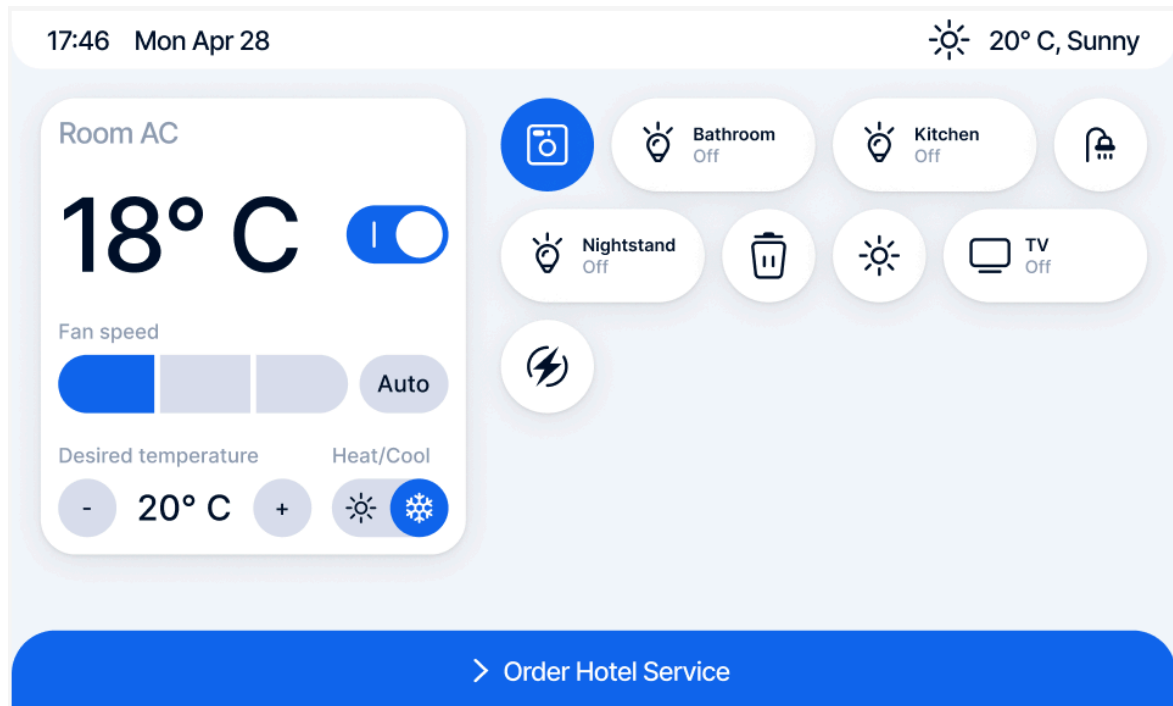
Driver design of Lock Screen:



Picture 3. Lock Screen with enumerated functions

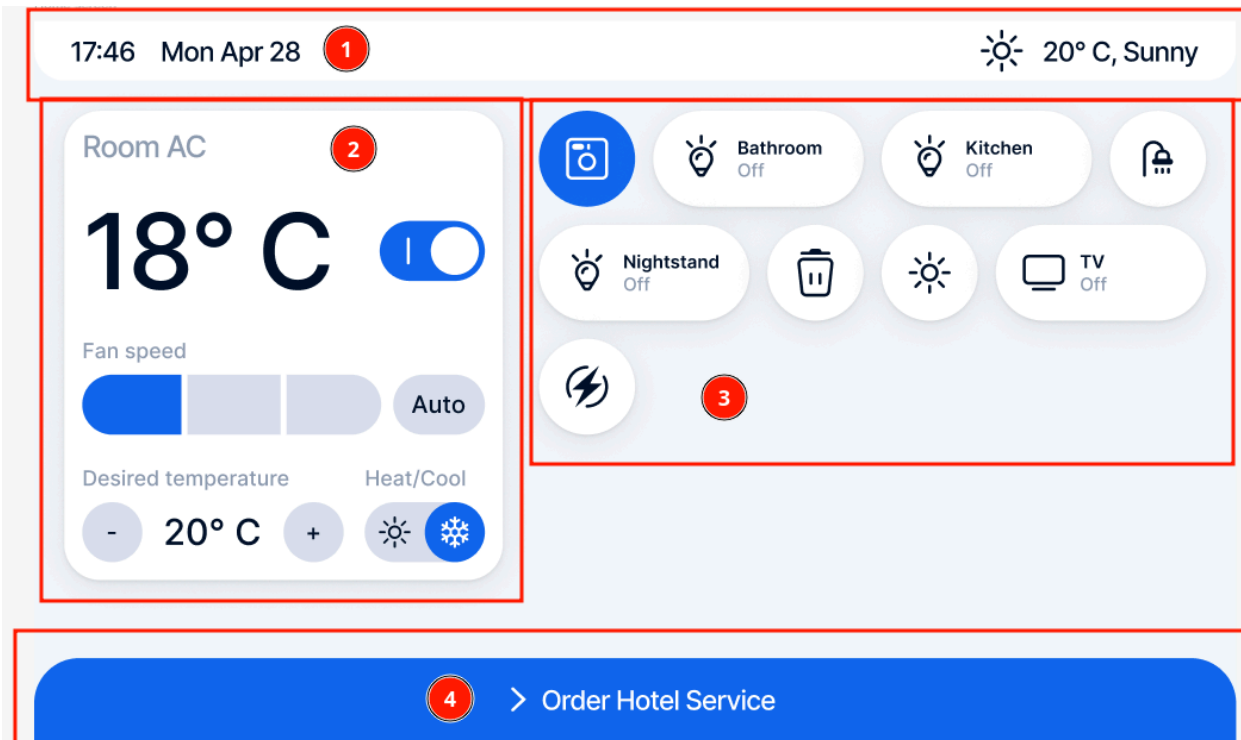
2. Device Group Screen

The header, consistent across most screens, displays the current date, time, and outside weather information. In cleaning mode instead of weather information there is a label “Cleaning mode”.

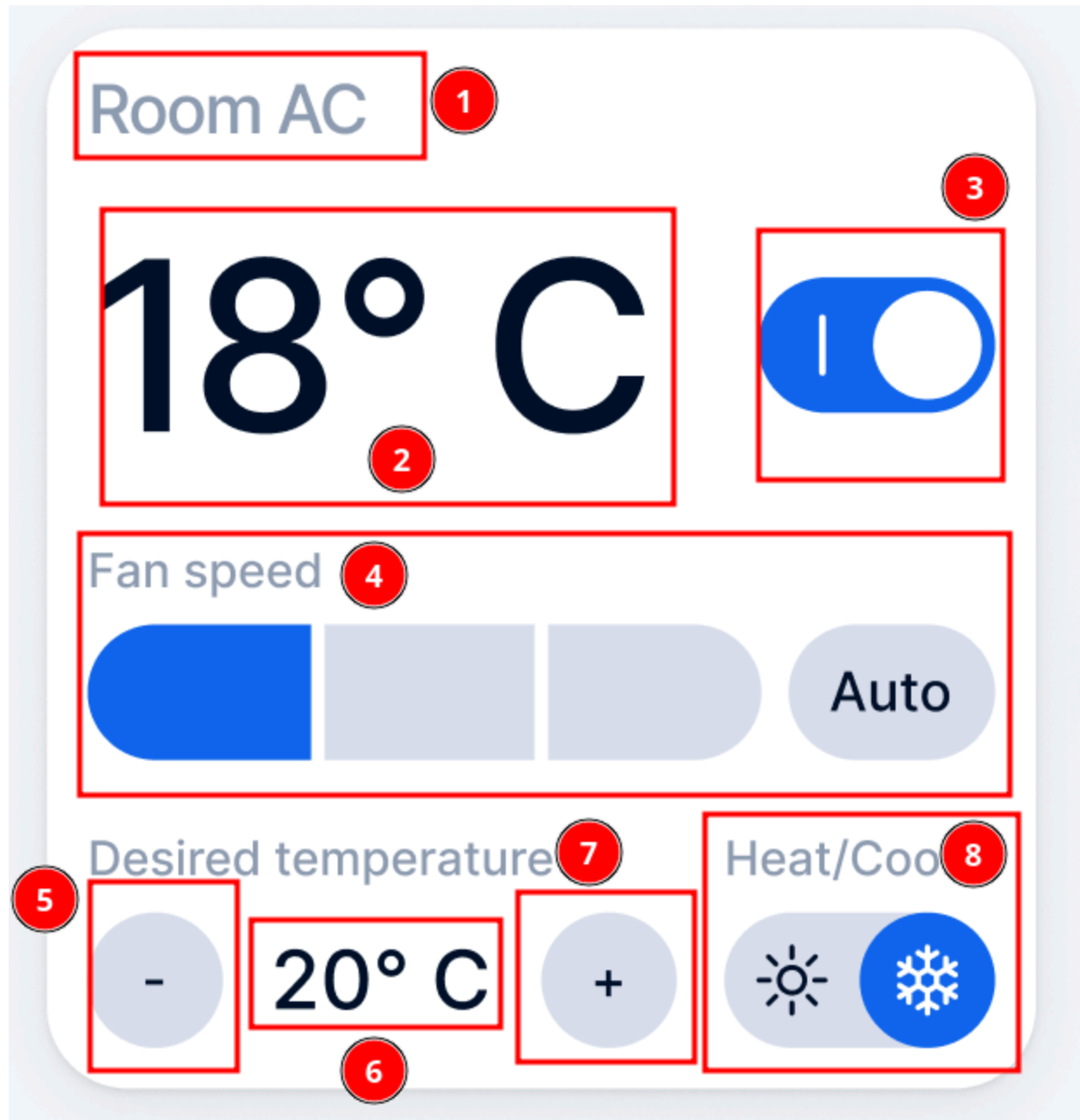


Picture 4. Device Group screen

A component such as “Room AC” must be reusable and capable of being displayed multiple times on the screen. Components with a blue background indicate that a process is currently ongoing or in an active state. For switches, by tapping the icons, their states are toggled. Every component is a tile with two sizes large and small, every tile consist of icon, label and state (active or not).



Picture 5. Device Group Screen with enumerated functions

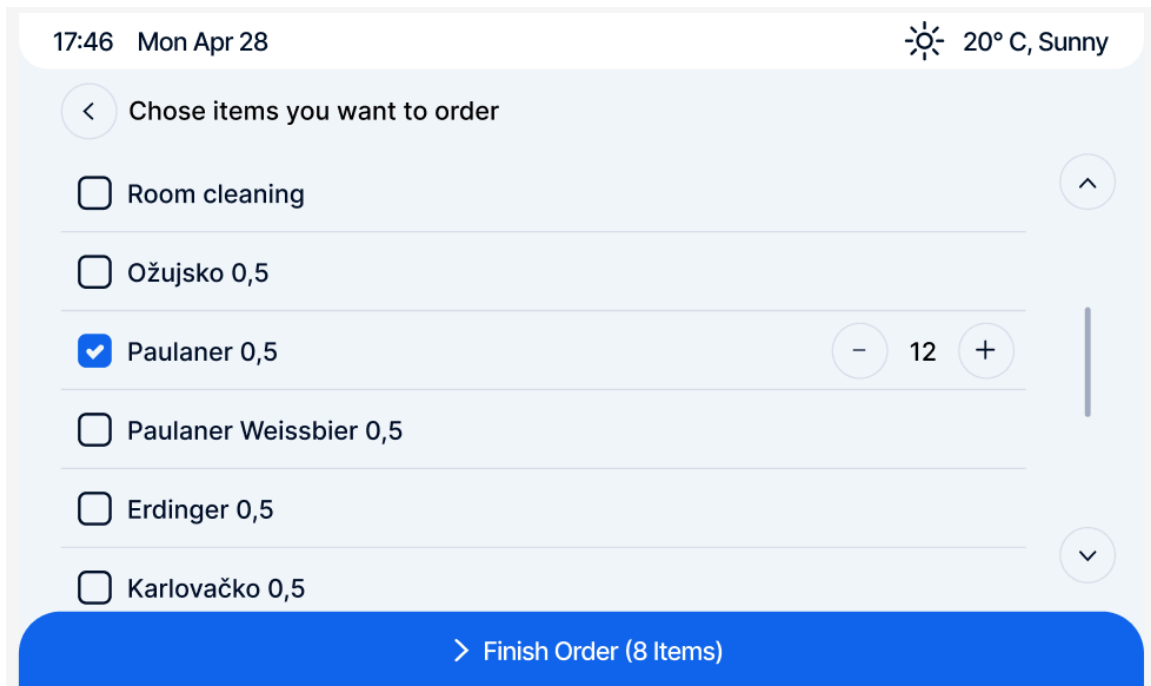


Picture 7. Room AC component with enumerated functions

3. Order Screen - Order Hotel Service

A scrollable screen displays a list of desired items that can be ordered for the room when the item is ticked. Each item that is ticked includes icons at the end to increase or decrease the quantity to be ordered. The screen must also include a button at the bottom to finalize the order—optionally, a confirmation modal can be added before completion.

A return button should be present to navigate back to the Device Group Screen.



Picture 8. Order Screen



Picture 9. Order Screen with enumerated functions for driver

4. Service Screen - Cleaning mode

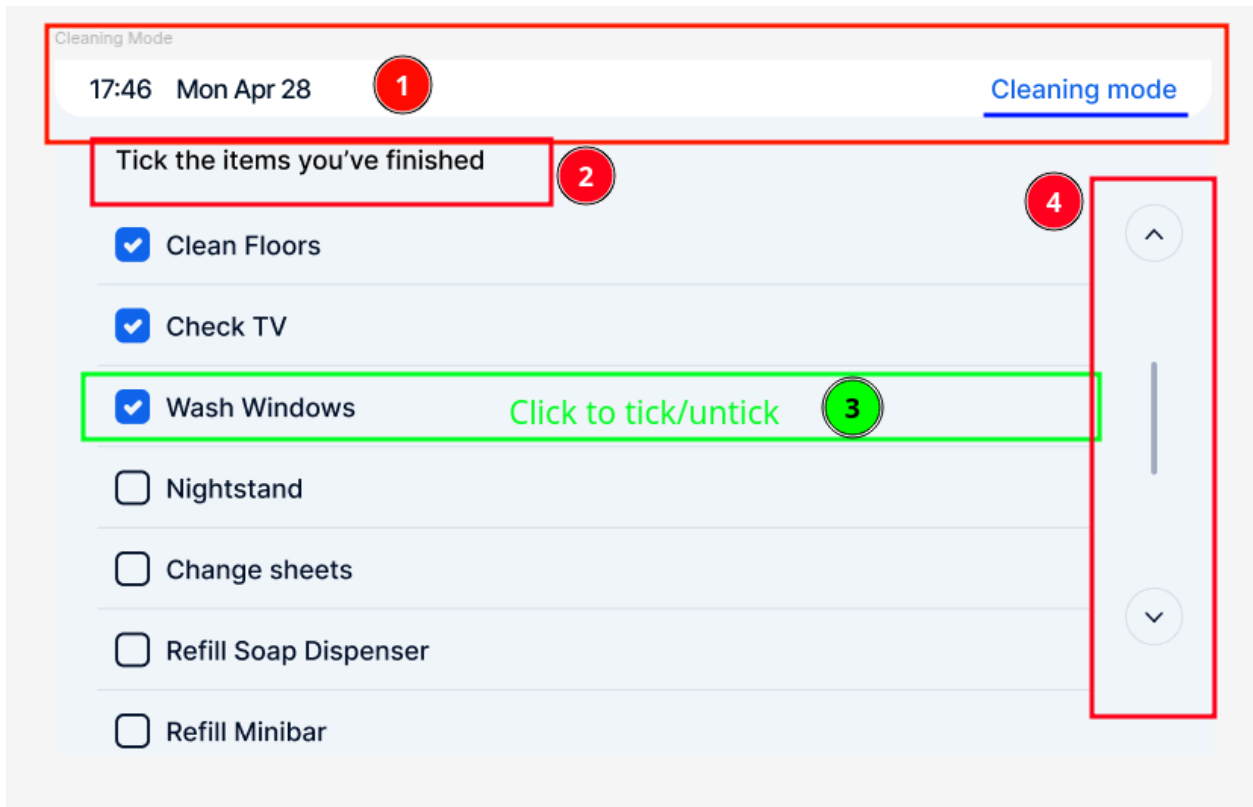
17:46 Mon Apr 28 Cleaning mode

Tick the items you've finished

- ☒ Clean Floors
- ☒ Check TV
- ☒ Wash Windows
- ☐ Nightstand
- ☐ Change sheets
- ☐ Refill Soap Dispenser
- ☐ Refill Minibar

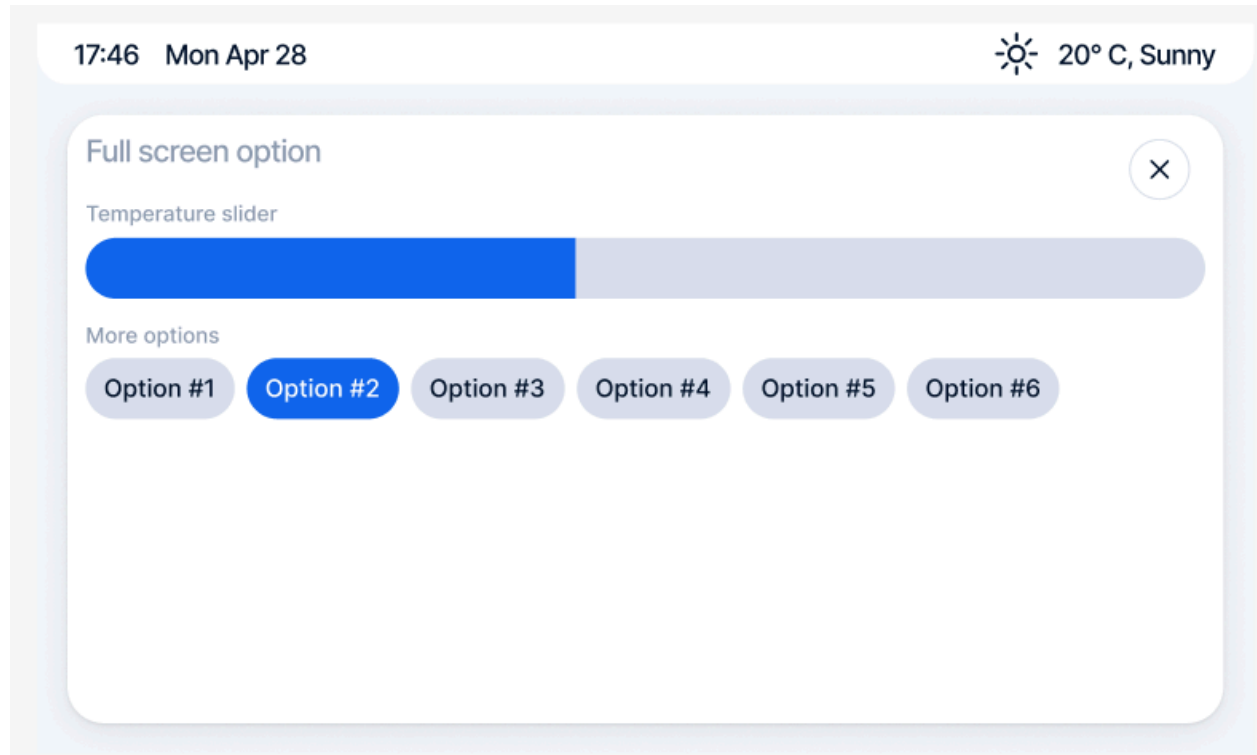


Picture 10. Cleaning mode - Service Screen

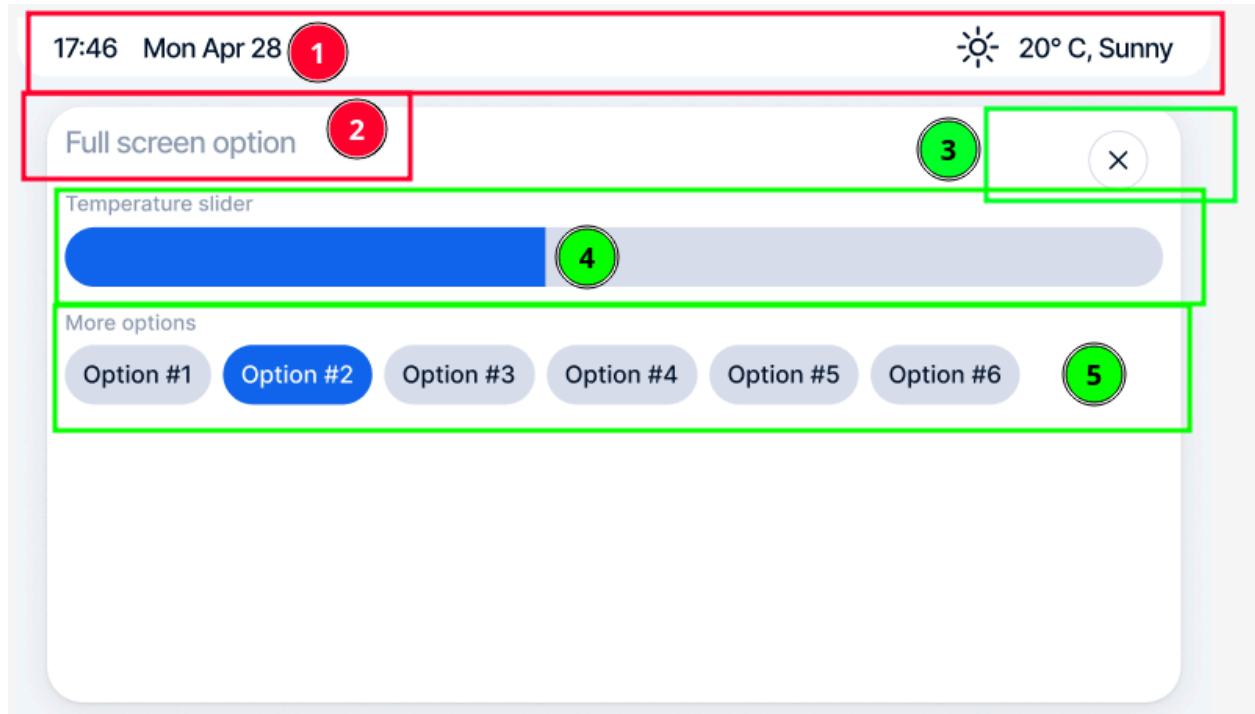


Picture 11. Service screen enumerated with functions

5. Analog Screen - Slider

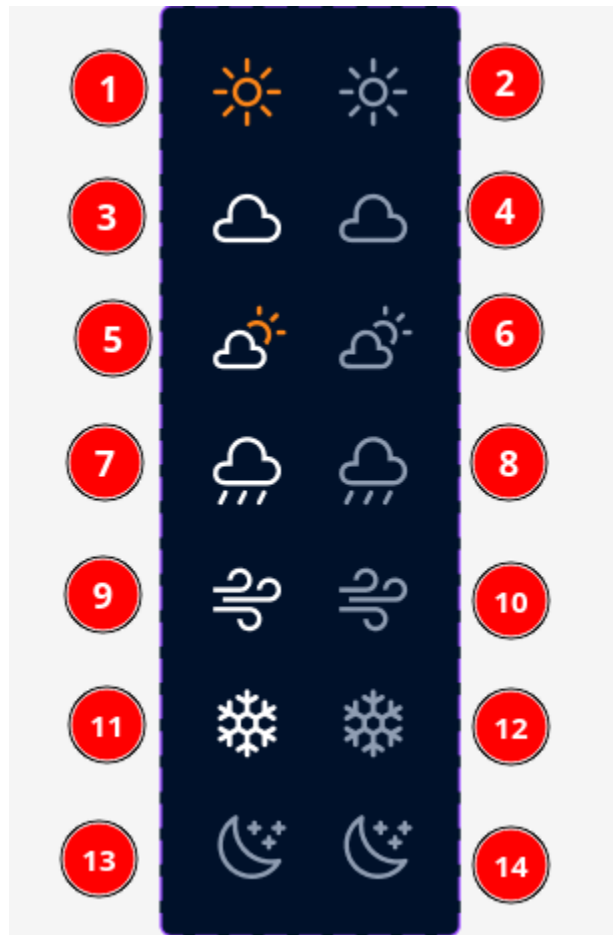


Picture 12. Analog Screen with custom options to manipulate states

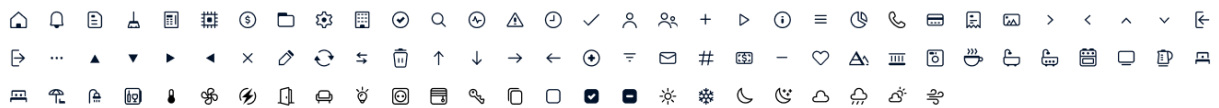


Picture 13. Enumerated functions for Analog Screen to implement

Supported Icons:



Picture 12. Supported Icons for Weather with suggested enumeration



Picture 13. Supported Icons Extended