

PROJECT REQUIREMENTS

Project Name

Mirror++

Functional Requirements

Smart Mirror Hardware: Mirror should be a large enough size to easily gesture into and have an appealing design.

User Interface: Have a swiping-based layout, with users able to easily see widgets and their functionality.

Weather Widget: Display weather similar to a phone weather app, showing current weather details as well as future weather information.

Schedule Widget: Taking information from user account's calendar, display either a weekly calendar or daily schedule (TBD at a later date).

Alarms Widget: Display user's set alarms for the day.

Connected Devices Widget: Display connected IoT devices as separate widgets and give user the option to toggle commands (like on or off) in the devices.

Technical/Performance Requirements

On/Off Button: Should shut off the entire device and restart it.

Web Camera: Should not be too visible or distracting on the mirror but should be able to recognize user gestures and apply commands accordingly.

Python OpenCV / SpeechRecognition Libraries: Should be manipulated to recognize basic gestures and operate widgets accordingly.

Security Features: The gesture-tracking camera should not be accessible from outside the user's account.