Watt are you doing IPC Project - Part 2

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Summary of the last presentation

All-in-one web platform for energy profiling of all devices in a household. The solution will display graphically real-time data and records of the energy spent by each appliance. It will also be able to pinpoint the least energy-efficient devices and, if applicable, provide suggestions, to reduce their power consumption/cost.



Functionalities & Tasks

Chosen Functionalities

- Dashboard
- Search Devices
- Device's Detailed Analysis

Tasks

- Obtain details of a specific device
- Compare energy usage across time periods and device tags
- Analyze top energy spending devices

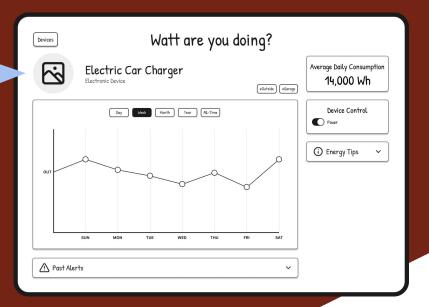


Wireflow (1 → 2)

1: Locate the device with the highest energy consumption



2: Find details about that device



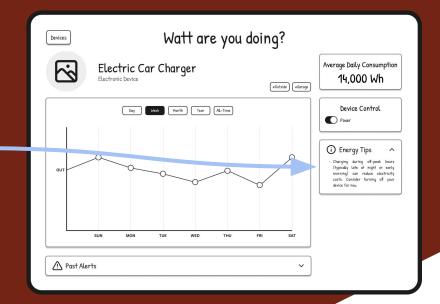


Wireflow (2 → 3)

2: Find details about that device

Watt are you doing? Devices Average Daily Consumption Electric Car Charger 14,000 Wh #Outside Garage Device Control Week Honth Year All-Time Power (i) Energy Tips A Past Alerts

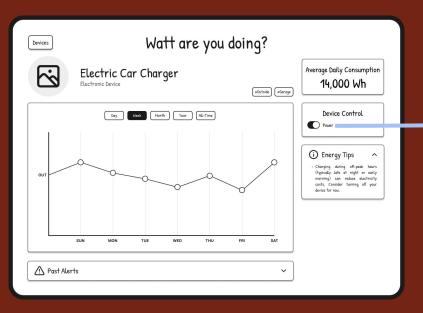
3: Read the suggestions on how to solve its problematic energy usage



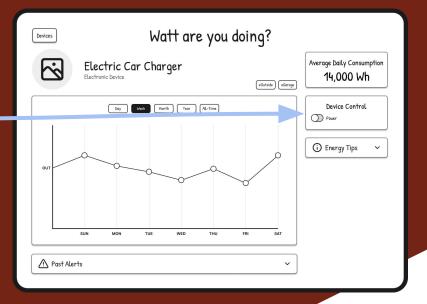


Wireflow (3 → 4)

3: Read the suggestions on how to solve its problematic energy usage



4: Perform the first suggestion inside the application



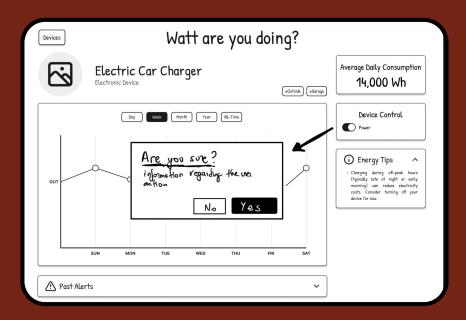


Heuristic Evaluation Results

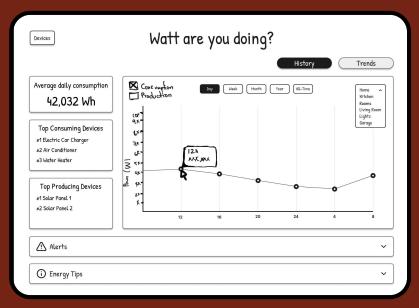
The majority of the inconsistencies and problems pointed were:

- Graphical representation of the information was not clear, namely in the presentation of consumption and production data in the same graph (Scale, IN/OUT) (Consistency and Standards)
- Presentation of important information was not given with sufficient focus (alerts/suggestions), making it easy to ignore
- App flow to add/delete device is unnecessarily complicated (Efficiency of Use).
- Lack of confirmation to turn off device (User control and freedom)
- Minor inconsistencies
- Export data to other formats (Flexibility and Efficiency of Use)



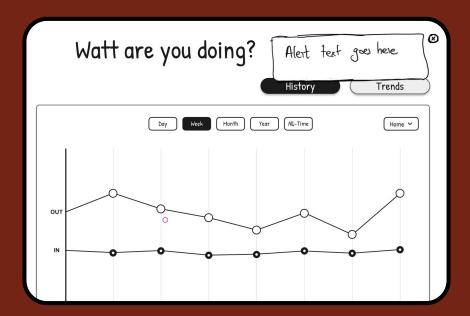


Confirmation before destructive actions (turning off device, deletion, ...)

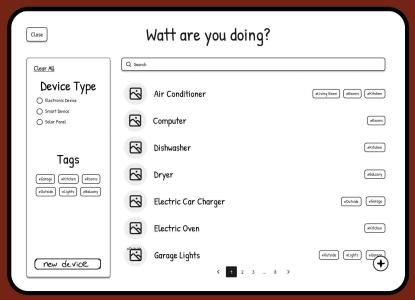


Improve Graph Representation





"Alert" notification system that clearly informs the user of suggestions



Improve flow of addition and deletion of device



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