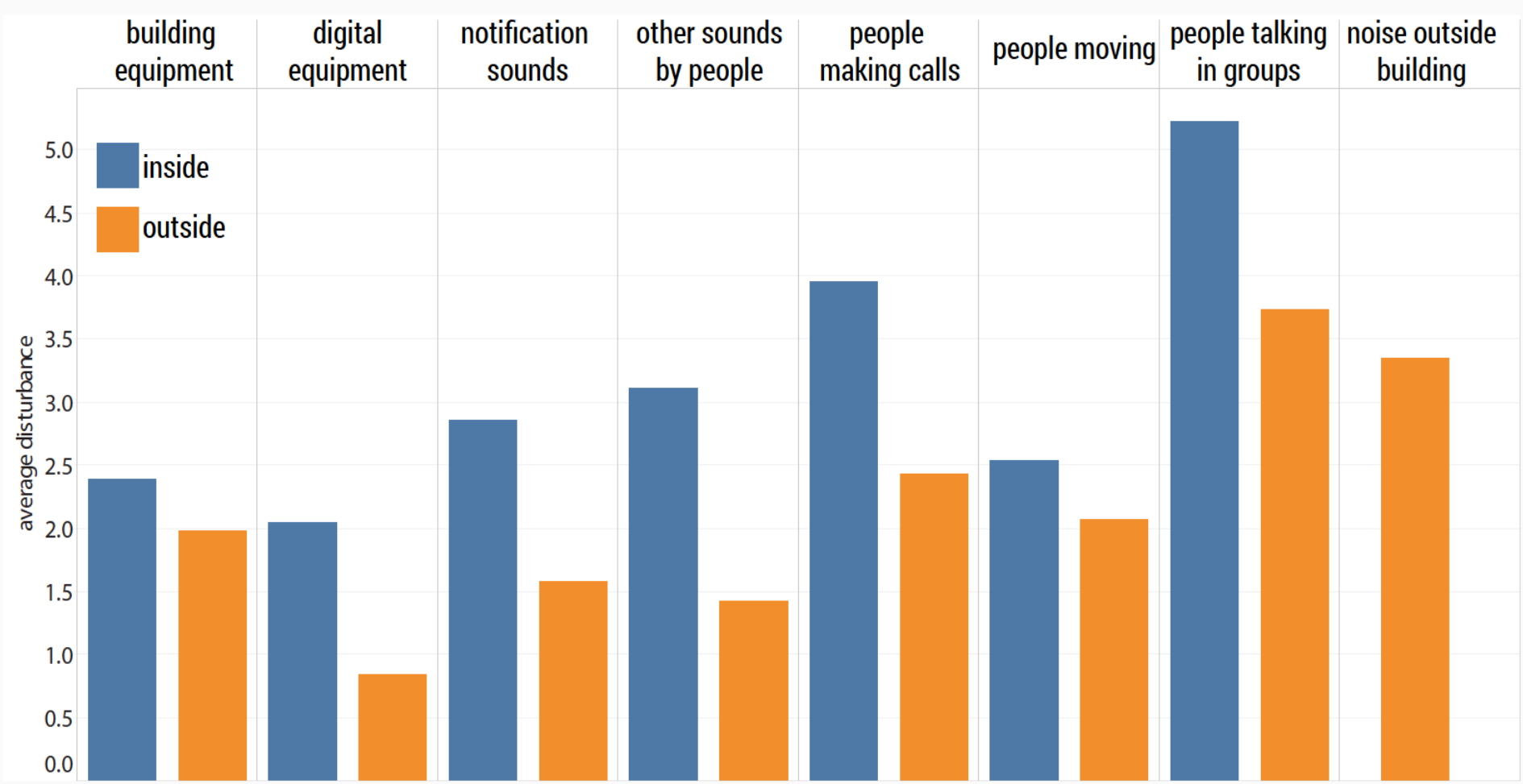


Situated Visualizations of Office Noise to Promote Personal Health

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Motivation

People spend a significant amount of time working in offices. Office work has been associated with a number of health issues and, in particular, noise has been identified as a cause of health concerns; including the inability to concentrate and elevated stress.

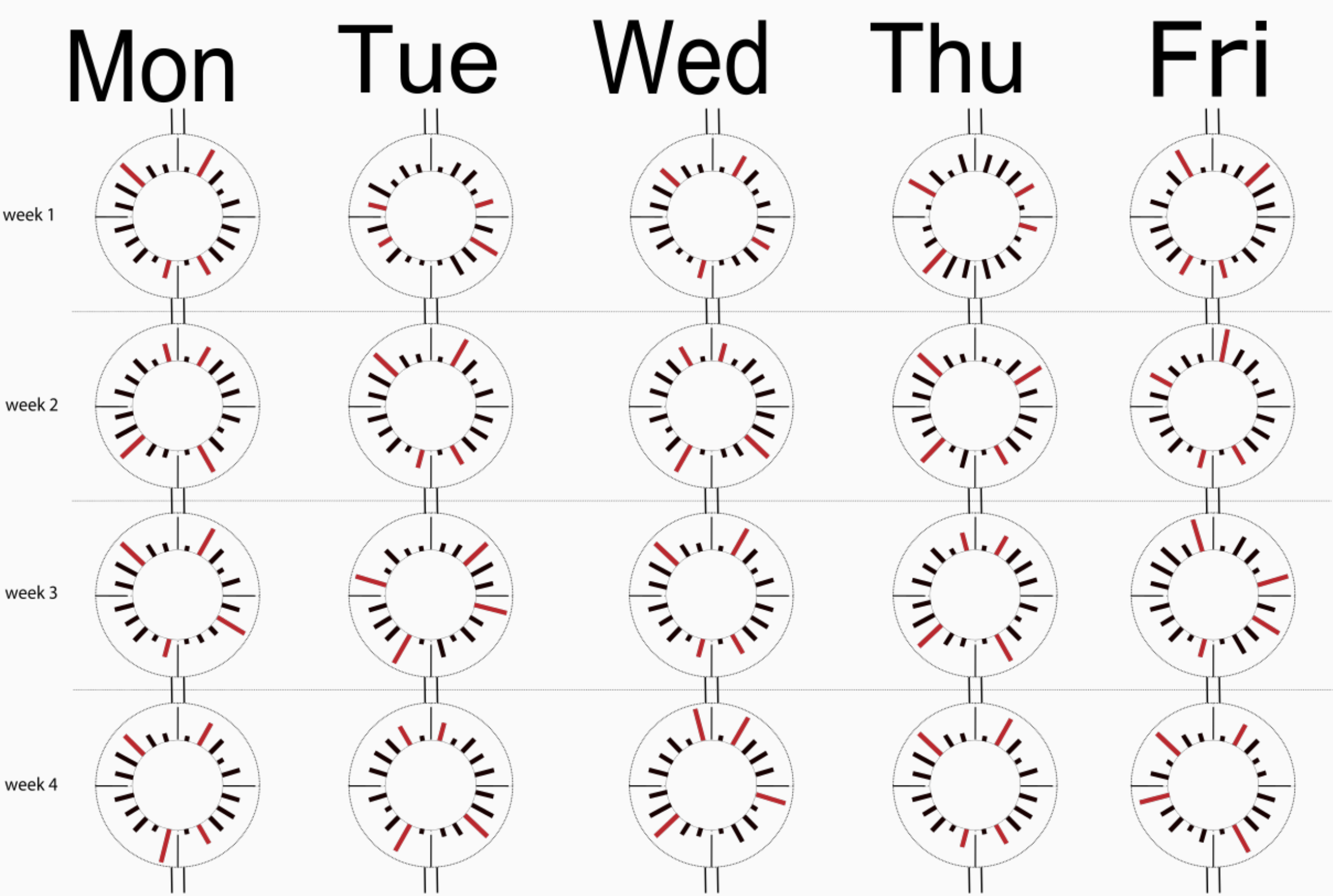


Requirement analysis

We contribute a beginning design study for a situated visualization of office noise. Specifically, we ran a design workshop with office workers to elicit design requirements. From the workshop we conducted a larger online survey on noise exposure in office spaces

Design Mockups

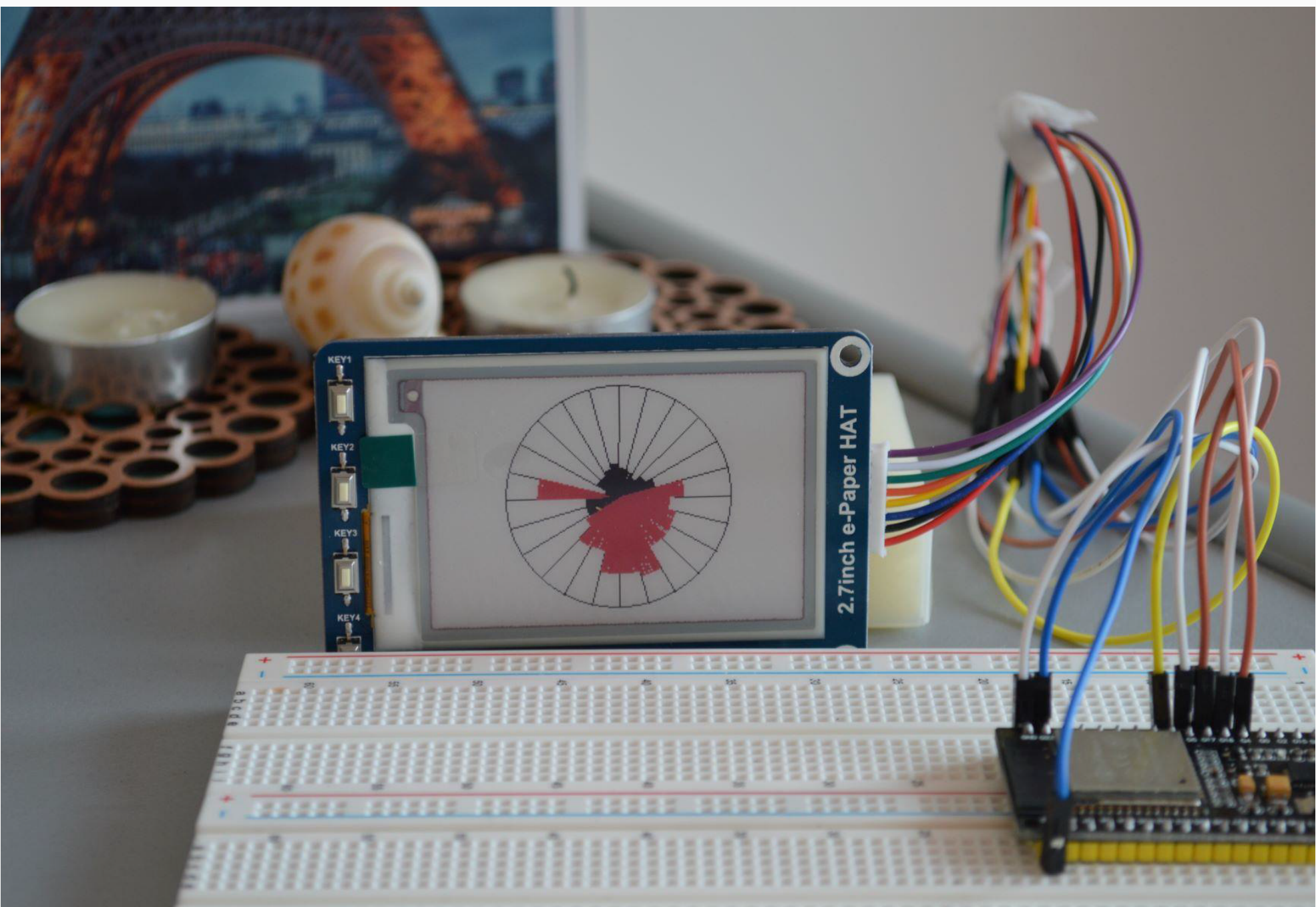
From the results of the workshop and survey, we derived two design mockups. First is a shared display with a month's worth of data and the other one is a small display visualization for daily noise levels.



One is a radial bar chart showing noise levels for each working day of the month. The circular graph is divided into four me slots between 9 am to 9 pm. In each me slot the noise level is drawn as an average for thirty minutes and times that exceed a critical threshold are marked in red.

Shared display Mockups

Shared display visualization shows the historical visualization of the noise in the workplace. With this visualizations co-workers can get an overview about a specific room and see whether or not it is generally noisy or quiet.

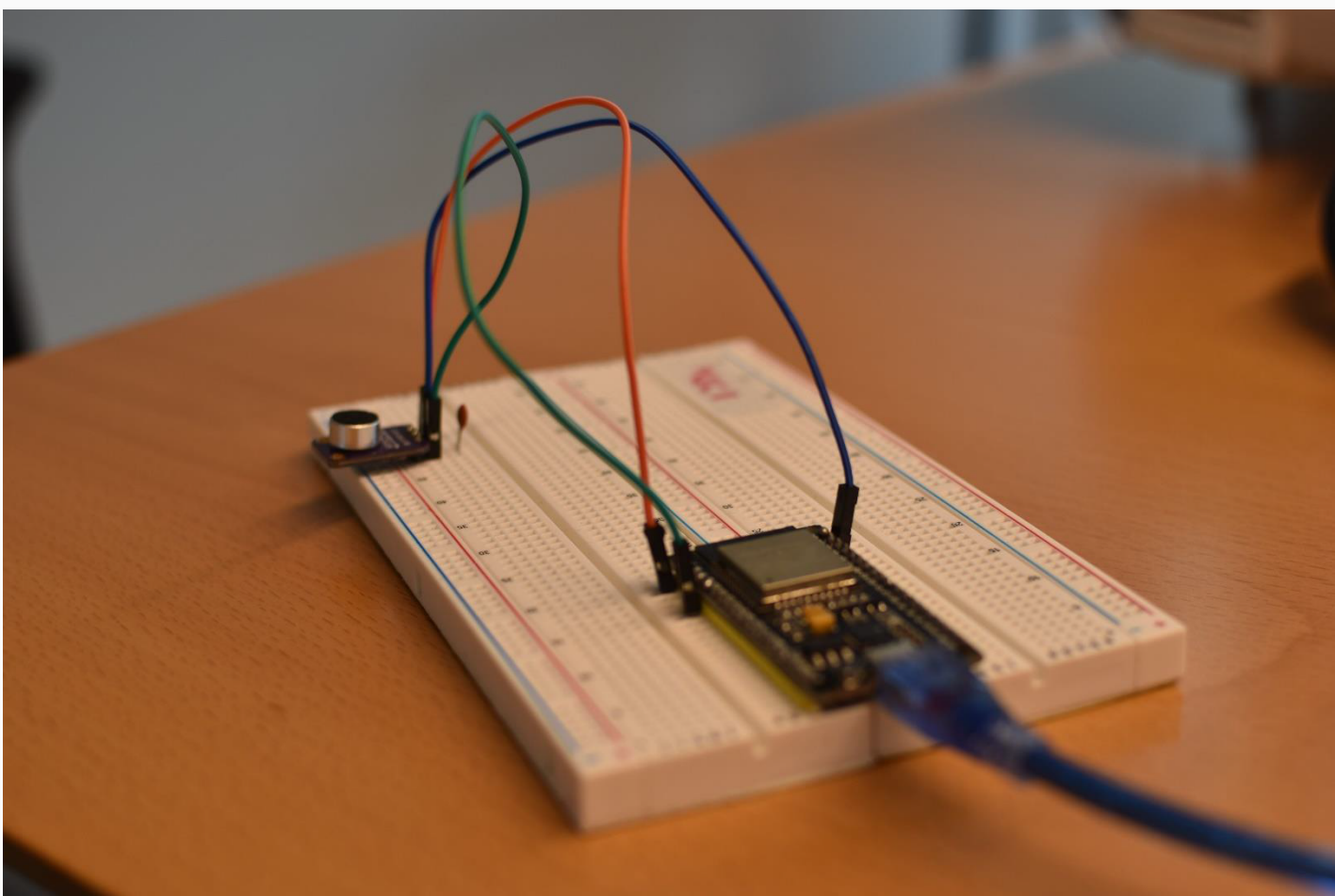


Small display Mockups

Small display visualizes who contributed which amount of noise. The individual small displays will only show one day's data and inform an office worker primarily about the sound they produce.

Hardware setup

- ESP32 microcontrollers
- Adafruit electret microphone



Network setup

