



AIROMATIC

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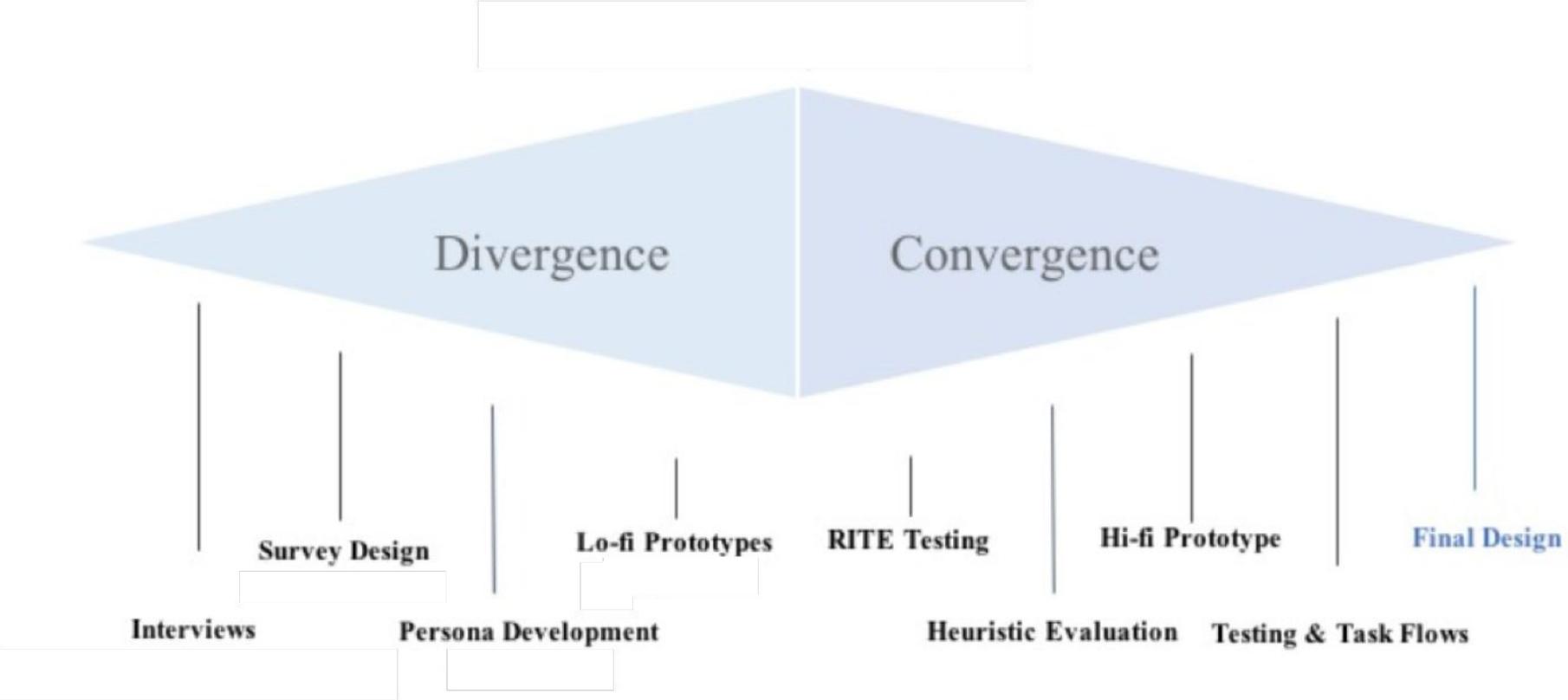


Smart City Air Challenge



- Procure and deploy 250-500 air sensors
 - Describe accuracy, precision, and reliability of criteria pollutants
- Manage the data they collect
 - Create solutions and identify best practices
- Plan to share data with other communities
 - Engage citizens in collecting data about their community
- Develop local partnerships for financial and technical resources

Design Process



Lightning Interviews

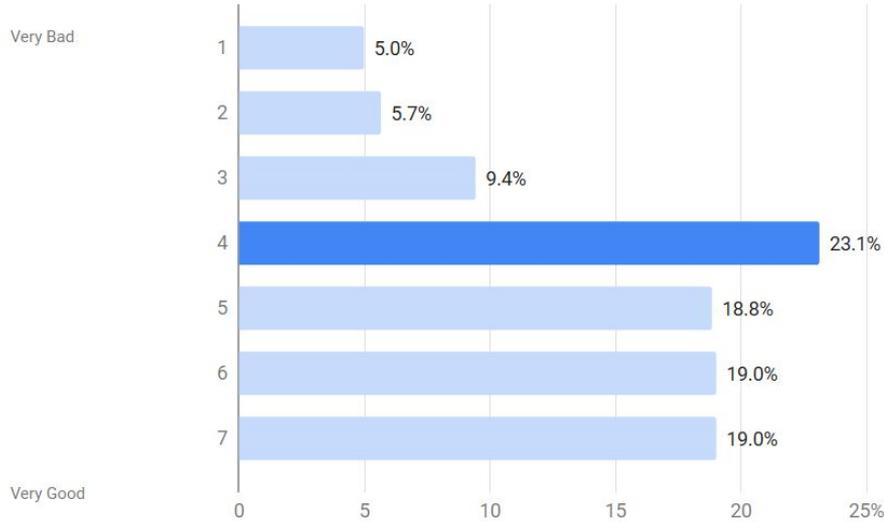
- Bad air quality isn't identified as a common problem
- Electric cars are used for economic, not environmental reasons
- General interest in the topic, but it's hard to find out how to take action



Online Survey

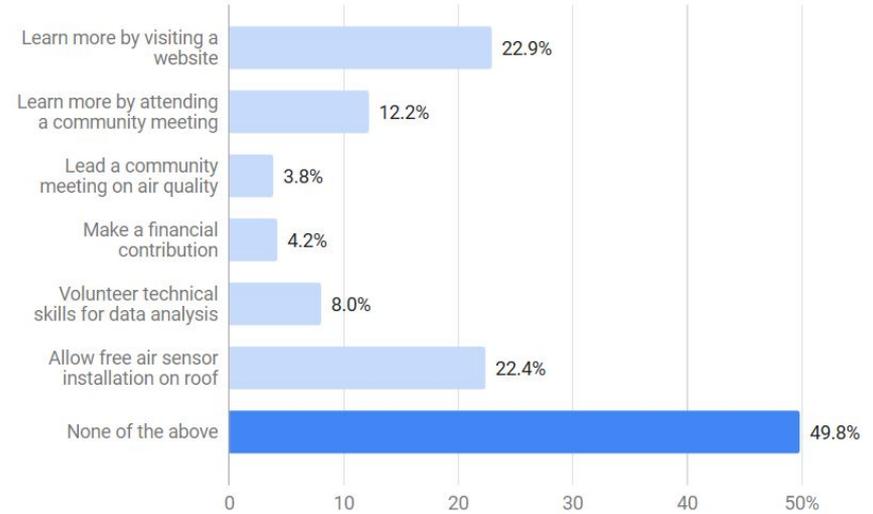
1. How good or bad do you think the air quality is where you live?

584 respondent(s)



2. In which of the following ways would you be willing to participate in a project to collect data about air quality?

678 answer(s) from 550 respondent(s)

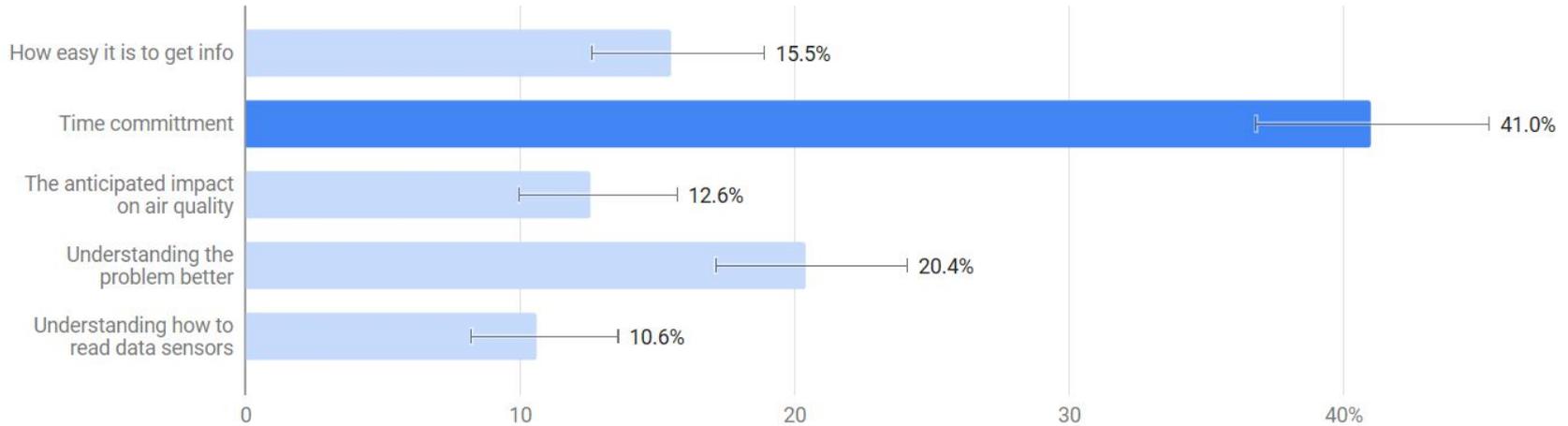


Results

Berkeley Design - Air Quality:

Which of the following factors are most important when it comes to your willingness to participate in a project to collect air-quality data in your neighborhood?

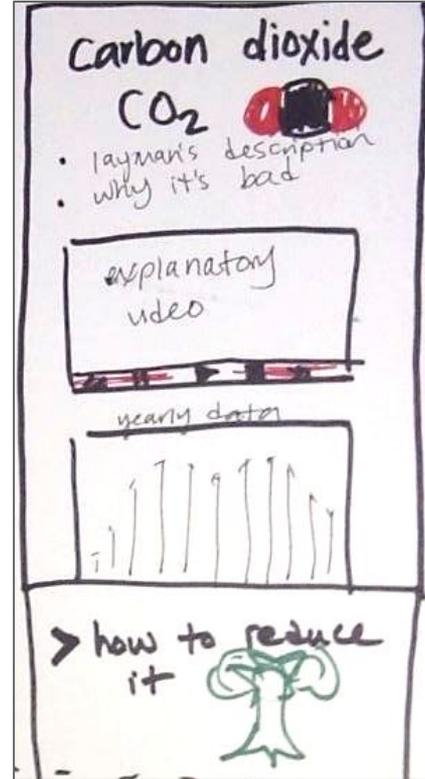
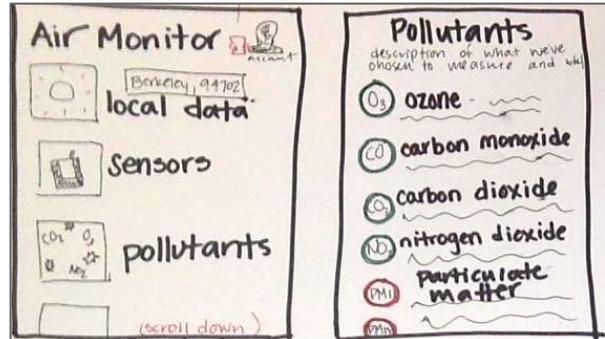
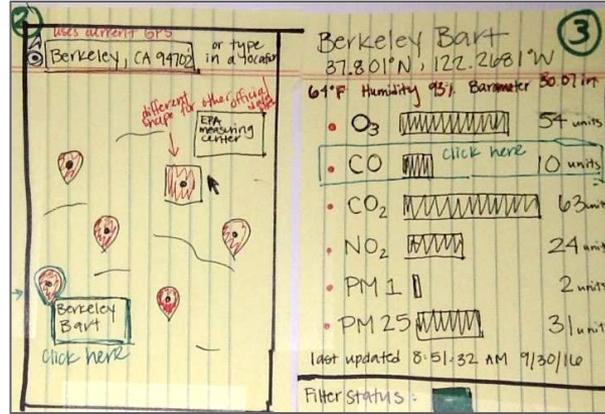
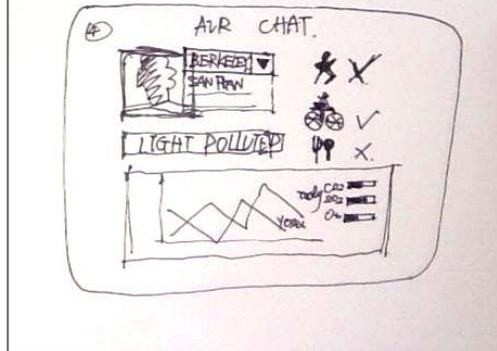
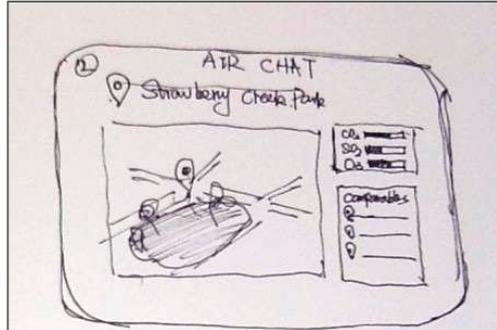
510 respondent(s) 



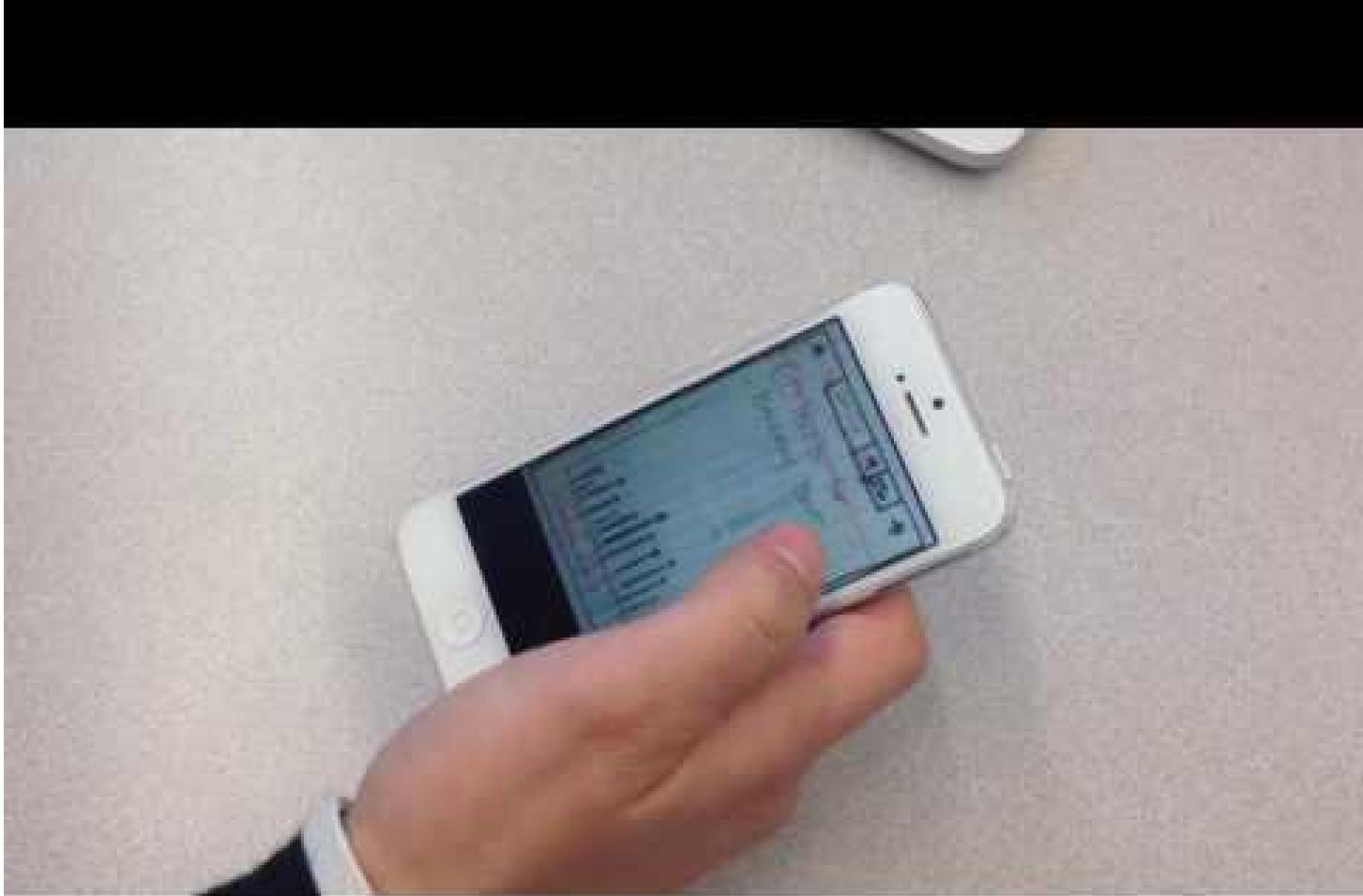
Three Personas



Lo-Fi Prototyping



RITE testing

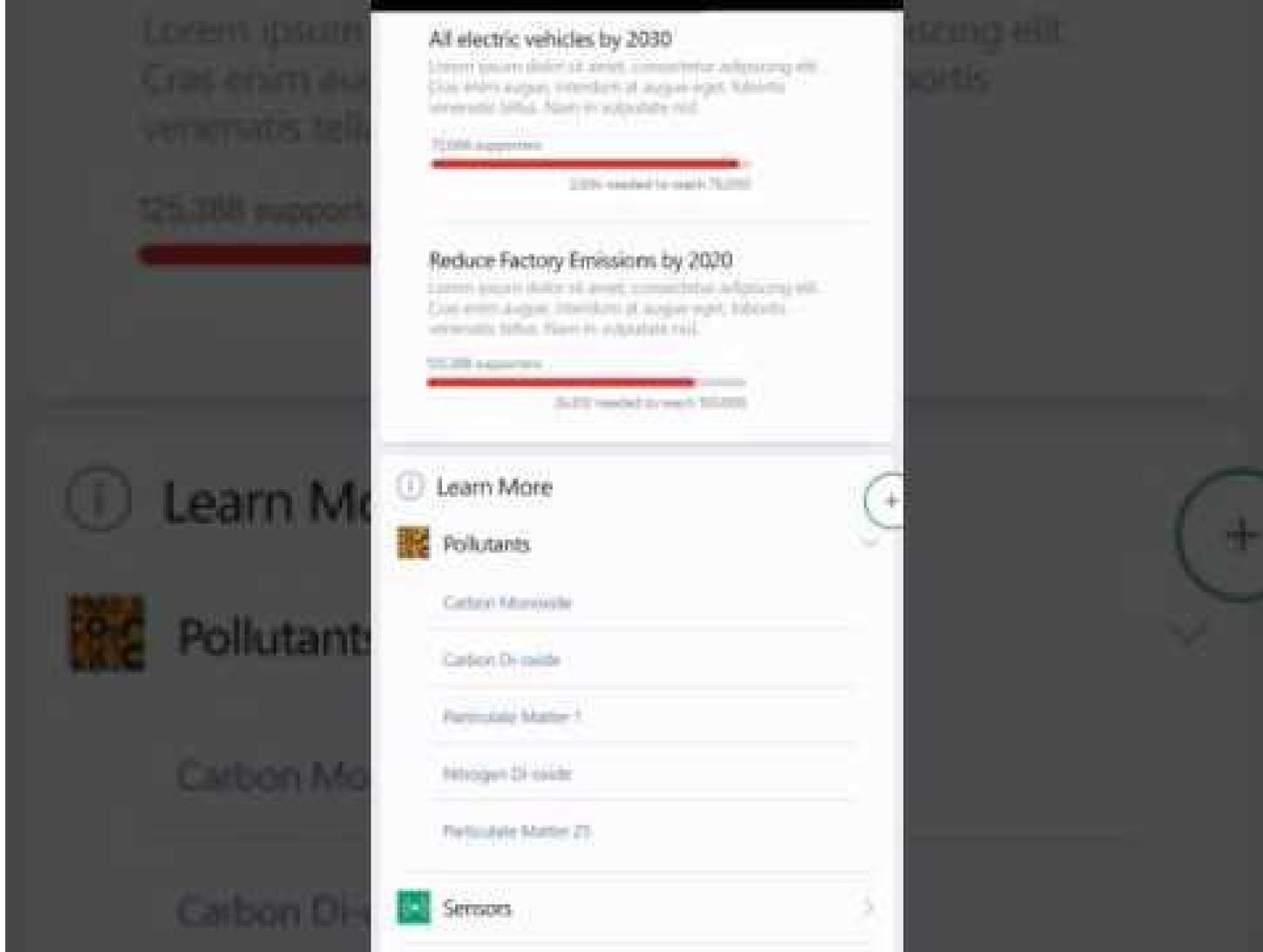


Heuristic evaluation

<i>Issue</i>	<i>Heuristic Category</i>	<i>Proposed Solutions</i>
<ul style="list-style-type: none">- Hard to interpret numerical data without reference point- Unclear pollutant descriptions on page with the bar chart data- "Take Action" appears goes to another website?- "Site data"- does this mean my site or website?	Recognition rather than recall	<ul style="list-style-type: none">- Offer baseline, safe numbers (above/ below), Compare to yesterday, Color scale (red = danger, green = safe)- A small question mark icon that appears next to an element/ symbol that offers more information- Clarify intent with different phrasing or icons- Clarify phrasing, or relocate to within 'profile' feature
<ul style="list-style-type: none">- (If I had a sensor at my site), I can't see it on the home page- My location not referenced on home page. Where am I?	Visibility of system status	<ul style="list-style-type: none">- Show my sensor, my favorite locations- Refine GPS location tool on home page
Challenging to visualize data on a large scale from map setting	Aesthetic and minimalist design	Provide combined AQI for each data point visible as color/number when 'zoomed out'
Navigation is challenging within the site	User control and freedom	Provide home & back buttons
Sensor page: is it an instructional guide or a sales pitch?	Help and Documentation	Clarify the text offered on the page
Navigation within the site data feature not established	Error prevention	Swipe feature to move forward/back in time, in addition to changing view by week/month/year in the detailed timeline
Donate money feature is sketchy without knowing to whom	Help and Documentation	Provide more information about the project and cost needs

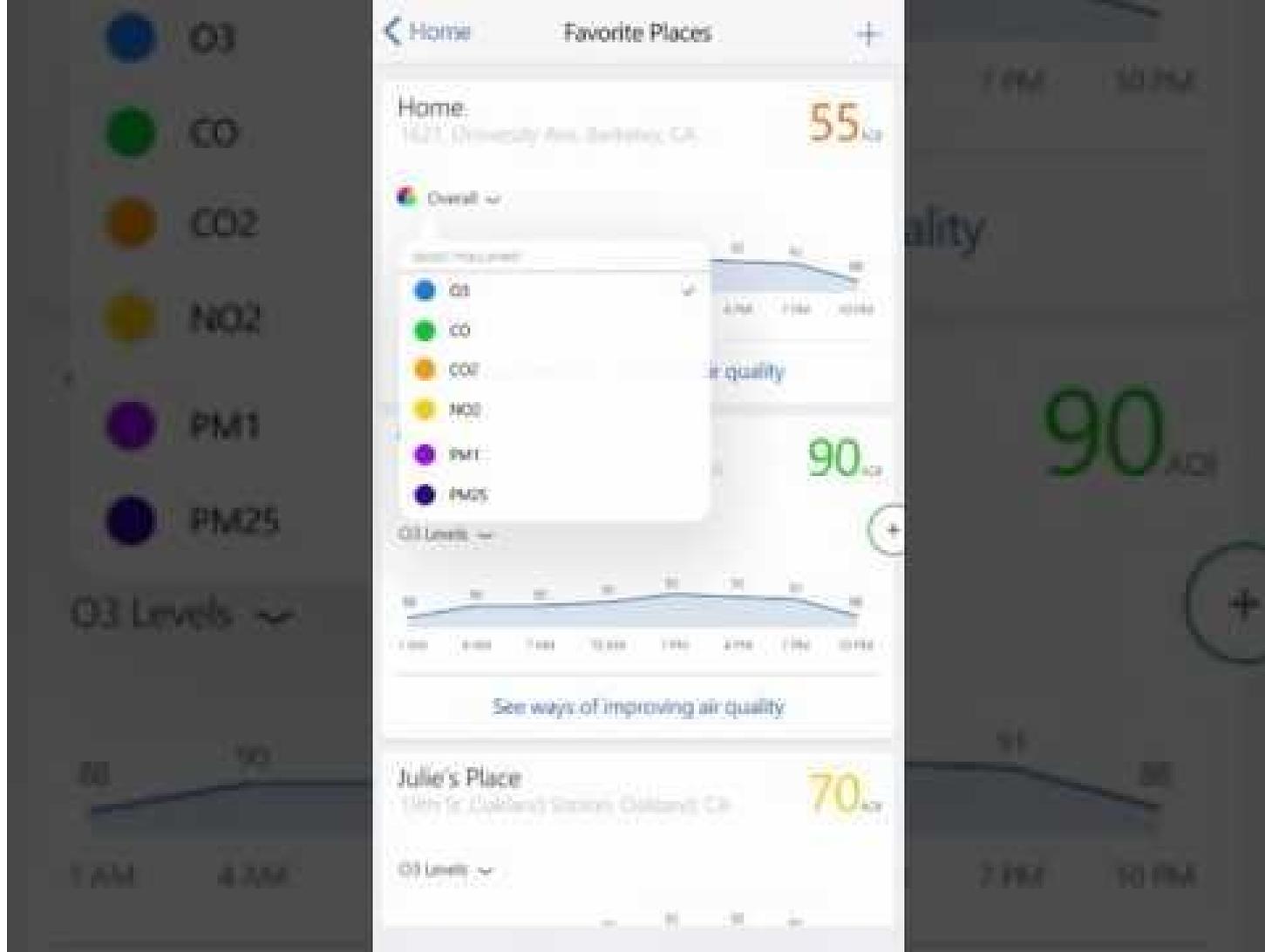
User testing

- 43 yr old
- Female
- Avg. expertise



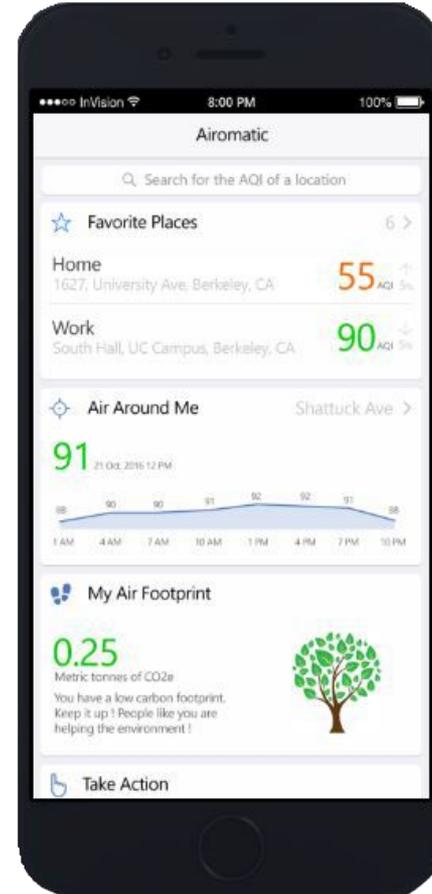
User testing

- 26 yr old
- Male
- Gamer
- High expertise



Airomatic main menu

- **Search & Favorite Places**
 - Check the AQI of your preferred locations
- **Air Around Me**
 - GPS updated data analytics and trends
- **My Air Footprint**
 - Carbon output, linked to behavior metrics
- **Take Action**
 - Connect with community members via social media
- **Learn More**
 - Details about the project, sensors, and pollutants



Thank you!



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