

Group Analysis for Meats by Dre

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Overall Evaluation

We thought they made a good attempt at providing a proof of concept of their solution, however it didn't always operate as expected and missed some key features such as a useable location entry, handling user errors, and providing meaningful instructions in app.

Heuristic Evaluation

Example

1. [Visibility]
 - a. (3) There is no easy way to find out what your set destination is without changing it and changing it back.
 - b. (3) Initial location is not announced and beeps start right away.
 - c. (4) There is no way to know how close you are to your destination. I.e. beeps should change with every "step" towards/away from your destination.
 - d. (2) There is no clear mapping between physical direction/location and the audio location. I.e. it's hard to relate beeps to turning in the right direction or stepping closer to the destination.
2. [System and Real World]
 - a. (0) The spoken "narrator" is very easy to understand with clear and concise statements.
 - b. (0) Beeps are a very natural noise when trying to follow something and they are implemented in a non-aggressive way.
3. [User Control and Freedom]
 - a. (3) It wasn't clear how to exit the program.
 - b. (4) It is impossible to set the intended line or destination without swiping through all the destinations.
 - c. (2) There is no pause state.
4. [Consistency and Standards]
 - a. (3) The significance of the volume and the frequency of the beeps are unclear. There isn't a way to calibrate these measurements either which makes it difficult to respond to the feedback initially.
5. [Error Preventions]
 - a. (3) It is unclear how to determine when you have reached your destination.
 - b. (2) No clear wrong direction indicator
6. [Recognition Rather than Recall]

- a. (0) Simple interface to learn.
- 7. [Flexibility]
 - a. (1) Doesn't scale to users of different needs and experience (with the station) levels.
- 8. [Minimalist Design]
 - a. (0) Definitely minimalist by only using sounds to direct the user, and only using frequency and volume.
- 9. [Help Users Recover from Errors]
 - a. (2) There is no way to get out of a circular loop if you keep making the same changes in direction but end up overcorrecting. This makes it difficult to interpret the given feedback.
 - b. (3) There is no way to tell if the system is working as expected or is broken. Since the beep is supposed to always continue, it is impossible to tell if it is actually "beeping correctly". Maybe you could make the user request a beep by tapping or clicking and then you provide the beep which indicates the direction. This way, if they press it and nothing happens, they will be more aware that it's broken.
- 10. [Help and Documentation]
 - a. (3) Obviously this will be sorted out with more time but the initial instructions don't explain the beeping at all. Potentially not necessary if this is an affordance blind people are familiar with?
 - b. (3) There is no way to get help when things don't actually work the way they are supposed to.

Recommendations and Wrap Up

Overall the finer details of how users interact with the auditory nature of the application need some work. One of our suggestions is to increase flexibility by adding aspects of a voice user interface to the app, allowing users to ask for what they want. Additionally, the clarity of the meaning of the beeps as well as a wider set of beeping modes can help communicate the variety of positions/directions a user can be in. Lastly, there should be more manual options (whether voice or touch) for understanding the current state of the application.

This was a really cool looks-like/feels-like prototype that helped us understand the operation of the application and its goals!

Summary Tables

Severity Rating	Number of instances
0	4
1	1
2	4
3	8
4	2

Name of Offence	Number of Violations
Consistency and Standards	1
Recognition Rather than Recall	0
Visibility of System Status	4
Match between System and Real World	0
Aesthetic and Minimalist design	0
User Control and Freedom	3
Help users recognize, diagnose, and recover from errors	2
Help and Documentation	2
Error Prevention	2
Flexibility and Efficiency of Use	1

Anna

1 . [H3 User Control and Freedom] (Severity 2)

There is only one state and there is no way to exit the state unless you shut down the program.

2 . [H6 Recognition Rather than Recall] (Severity 3)

The beeping starts while the instructions are being read which makes it difficult for the user to understand how to interact with the product.

3. [H10 Help and Documentation] (Severity 2)

It is not clear what the end goal of the service is and how you know you have accomplished something.

4. [H1 Visibility of system status] (Severity 3)

The beeping starts right away and the initial location that is set is not read out loud.

5. [H1 Visibility of system status] (Severity 2)

It is difficult to calibrate yourself since you are given no context at the beginning

6. [H1 Visibility of system status] (Severity 1)

There isn't a great way to check which line you have set as your end destination. This information can be attained by swiping one direction and then back to have it read the line out again but that doesn't seem very intuitive since that is not the purpose of the swipe function.

7. [H4 Consistency and Standards] (Severity 2)

The significance of the volume and the frequency of the beeps are unclear. There isn't a way to calibrate these measurements either which makes it difficult to respond to the feedback initially.

8. [H7 Flexibility and Efficiency of Use] (Severity 2)

There is no information about your starting location relative to the lines which would help orient the frequent user of the program and train station. Providing the information at the beginning would help users who are not new to the product and takes advantage of previous knowledge to ground them better.

9. [H1 Visibility of system status] (Severity 2)

It is hard to know which part of the line the user is being directed to and it is unclear when that location has been reached.

10. [H1 Visibility of system status] (Severity 2)

It is difficult to tell how the noise feedback is responding to the user's actions. There isn't a clear way to gauge how your change of position and the beeps relate. It is unclear how gauge

the accuracy of your change since there is nothing to measure the beeps against to calibrate yourself.

11. [H3 User Control and Freedom] (Severity 1)

The user has to rotate through all of the lines to get to the one they want with is somewhat cumbersome.

12. [H9 Help Users Recognize, Diagnose, and Recover from Errors] (Severity 2)

There is no way to get out of a circular loop if you keep making the same changes in direction but end up overcorrecting. This makes it difficult to interpret the given feedback.

Additional Notes:

- Swiping left and right to change lines and swiping up and down to change direction of the train seem intuitive.
- Minimal design is good for visually impaired and blind users since too much stimulus while navigating can be useless.
- Would noise being the main channel for feedback be difficult in a train station?

Annie

1. [H1 Visibility] (0)

Visibility N/A

2. [H2 System and Real World] (1)

Beeping is similar to what would be experienced in the real world, but clearly, a handheld/portable device would need to be used for the actual experience. And obviously, arrow keys would not actually be used, but good to test with.

3. [H3 User Control and Freedom] (2)

No clear "emergency exit" (as stated in the article) if something happens. I missed the instructions at the beginning due to the beeping taking place over it.

4. [H4 Consistency and Standards] (1)

Beeping is consistent, but the frequency and sound change gets confusing. Maybe just change either, not both. For example, slow beeps at the beginning and one long beep when you reach the train?

5. [H5 Error Prevention] (4)

Probably most worrisome part, there should be another sound than louder beeping to show you've made it to the train. Maybe a different sound, like someone saying "arrived"? I never

knew when I reached the train. Also, maybe a warning if moving in the opposite direction unintentionally, besides the beeping?

6. [H6 Recognition rather than Recall] (0)
Simple interface to learn.

7. [H7 Flexibility]
N/A, I think it should be one size fits all? I could be wrong, but it seems simple enough.

8. [H8 Minimalistic Design](0)
Definitely minimalistic by only using sounds to direct the user, and only using frequency and volume.

9. [H9 Help users recover from errors]
Not many instructions for beeps, or if the user is unintentionally moving away from train.

10. [H10 Help and documentation]
Maybe to help the user, you could provide a speaking option instead of swiping, so they can tell the device where they want to go.

Lucky

The program stops my keyboard from working for some reason so I wasn't fully able to engage with it.

problem 1 [heuristic 1 and visibility of system status] (severity 3)
It wasn't clear to me how to check what line I was currently headed to.
It was great that it told me when I switched but a way to check while I'm walking would be nice.

problem 2 [heuristic 3 and user control and freedom] (severity 2)
It wasn't clear how to exit the program or stop the beeping when I didn't want to hear it.

problem 3 [heuristic 10 and help and documentation] (severity 1)
Obviously this will be sorted out with more time but the initial instructions don't explain the beeping at all. Potentially not necessary if this is an affordance blind people are familiar with?

Peter

1. [Visibility of System Status] (2)

- a. I feel like this could benefit from knowing how close to your destination you are getting beyond just that you are moving in the right direction.
2. [Match Between System and the Real World] (0)
 - a. I think beeps are a very natural noise when trying to follow something and they are implemented in a non-aggressive way.
3. [User Control and Freedom] (1)
 - a. I think this app does very well because it doesn't actually provide the user much control at all. However, I think building out the process of choosing a location or changing the intended location would actually be very useful since this poses quite a difficult challenge.
4. [Consistency and Standards] (0)
 - a. I think the system is very consistent as a whole.
5. [Error Prevention] (0)
 - a. I don't see any errors existing in the current state. I think once you start adding location entry, you could run into some problems making sure people select the correct location, or some sort of validation on that front.
6. [Recognition Rather than Recall] (0)
 - a. I think this isn't really a problem in the current state of their demo.
7. [Flexibility and Efficiency of Use] (2)
 - a. Similarly to what I mentioned before, but I think the lack of flexibility can be a good thing as long as users feel like they still have control. I feel like they currently don't really have control over the system. There is no way to exit, stop, or check what their intended destination is.
8. [Aesthetic and Minimalist Design] (0)
 - a. I mean since it doesn't actually have any graphic design I'd say that yes, it is quite minimal. I like the voice at the beginning that explains how to navigate. It is simple and straightforward.
9. [Help Users Recognize, Diagnose, and Recover from Errors] (0)
 - a. There is no way to tell if the system is working as expected or is broken. Since the beep is supposed to always continue, it is impossible to tell if it is actually "beeping correctly". Maybe you could make the user request a beep by tapping or clicking and then you provide the beep which indicates the direction. This way, if they press it and nothing happens, they will be more aware that it's broken.
10. [Help and Documentation] (3)
 - a. There is no way to get help when things don't actually work the way they are supposed to.