MFD - Home 1 / 14



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Home screen included wide varieties of functions to meet user's requirements. Also the users can customise the setting page and Mytask page, it can cover the user's different usage habits.

(The dynamic operation details cannot be shown in the wireframes. But people can click the star from those task page to star their favorite tasks, and they can drag the settings icon to change the position)

Besides, the tasks and map page are the focus of my design. The tasks include the overview, the user's favorite tasks, and different task categories in different colors, making the page clear and easy to navigate, so it works more efficiently in outdoor conditions.

Also, for the map page, tagging along with the summary of the current task makes it easier to make decisions.

As a UTV user, I include both on-screen buttons and physical buttons to navigate to important pages, making it suitable for outdoor use.

MFD - Map Page 2 / 14



Showing two routes details on map page for the task give the users option to choose the best one for them.

The flags on the map page represent different task categories by color, making them easy to recognize. These flags are clickable and direct you to the task detail page.

For the map page, there are some important settings, such as voice navigation in case it's not convenient to look at the screen, route recording, and playback for users to review in the future. The voice control feature allows users to be hands-free during navigation.

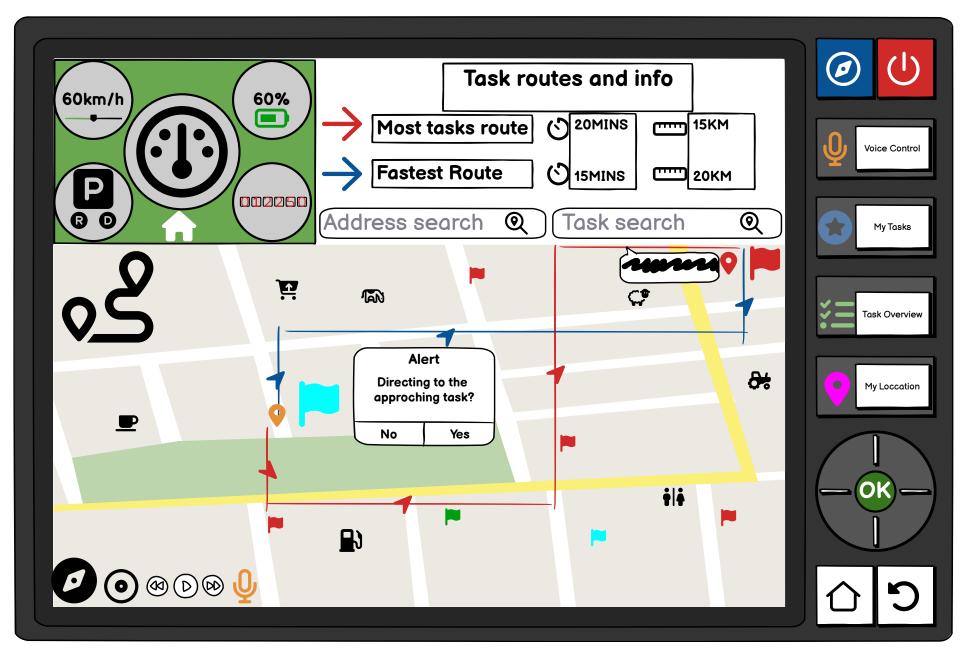
The search bar allows you to search for the address and task name to navigate faster once you're familiar with the task details. Alternatively, you can go to MyTasks or click the task flag to choose the task to navigate.

reference:

For the flag using different colors comes with Gestalt Principles—specifically Similarity and Proximity. Similar tasks grouped by color allow for quick recognition,

Citation: Wertheimer, M. (1938). Laws of Organization in Perceptual Forms. In W. D. Ellis (Ed.), A Sourcebook of Gestalt Psychology.

MFD - Map Alert Page 3 / 14



When you're approaching the closest task, the flag will enlarge and display an alert asking if you want to navigate to the task detail page or stay on the current page. This ensures the user doesn't miss the task that should be prioritized.



It can direct to the task detail page from multiple pages. This page displays all the essential details, especially the job description, allowing the user to have a better understanding of the task. Additionally, with the task date and progress, the user can easily decide the priority level.

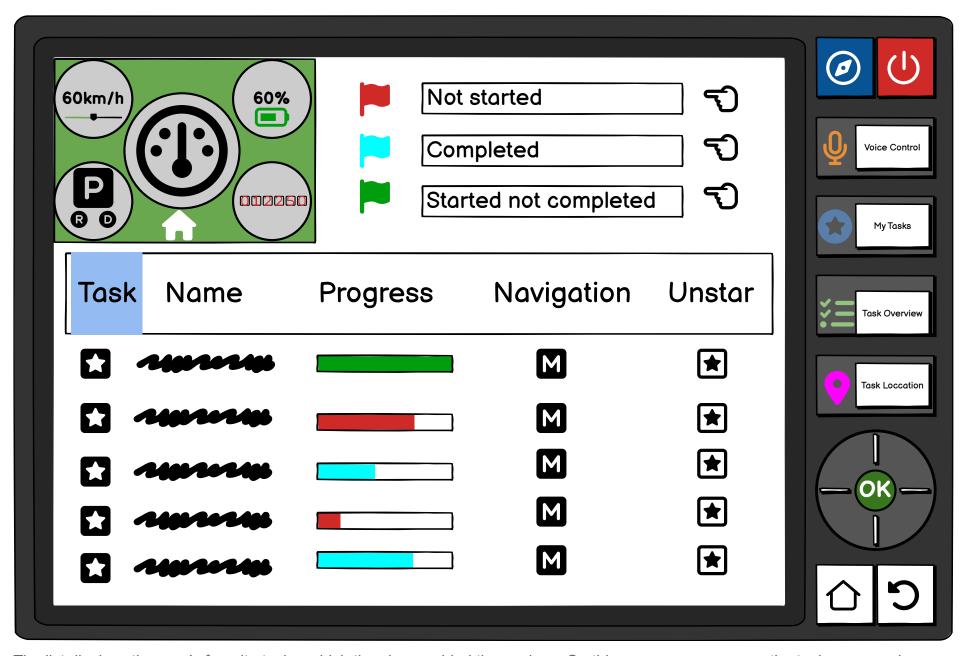
After reading the details, the user can click the route icon to navigate to the task's map page. Also, for the map alert, when the user chooses Yes, it will direct them to the task detail page as well.

reference

This follows Nielsen's Heuristic #3: User Control and Freedom, which emphasizes the importance of easy navigation and providing users with multiple ways to reach essential information.

Citation: Nielsen, J. (1994). Usability Engineering. Morgan Kaufmann Publishers.

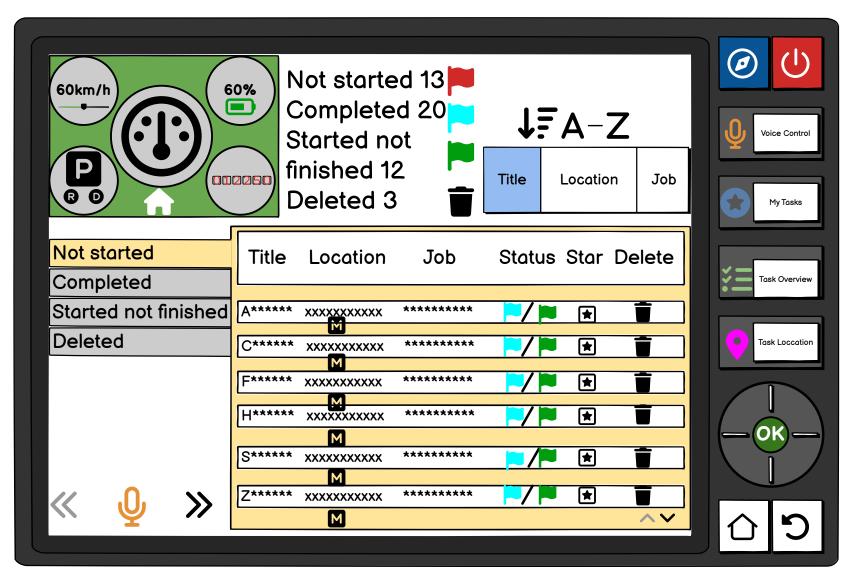
MFD - My tasks 5 / 14



The list displays the user's favorite tasks, which they have added themselves. On this page, users can see the task name and progress. For operation, they can directly navigate to the task's map page immediately, and they can also unstar the task to remove it from "My Tasks" without deleting it.

At the top, there is a simple summary of the three task categories, allowing users to navigate to different categories by clicking the finger icon.

MFD - Task-Not Started 6 / 14

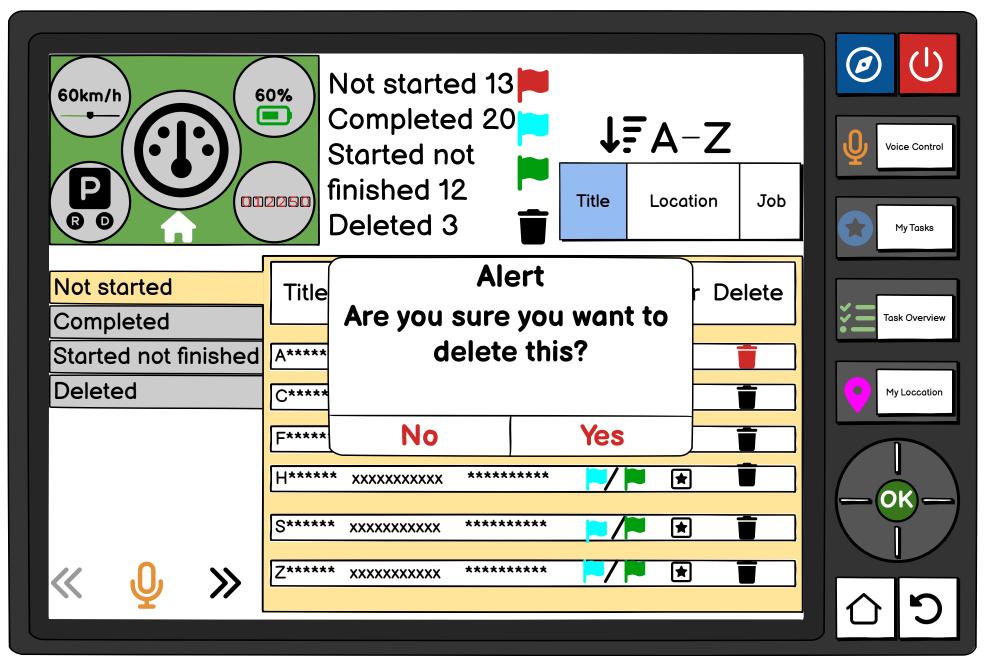


The Not Started task page displays the total number for each category, with a filter allowing users to choose how they want to display the tasks. They can order them by title, location, or job. The selected option will stay highlighted (eg, title is currently ordered alphabetically).

For each task there's a map icon to direct users to the task map page, make the relation between task and map are stronger. In the information box, you'll find the title, location, and job description. If users want to make changes or update the tasks, they can click the flag to change the task status to one of the other two categories. They can also choose to star or delete the task.

By clicking the next page icon or the category name, users can move to the next page with the same basic structure.

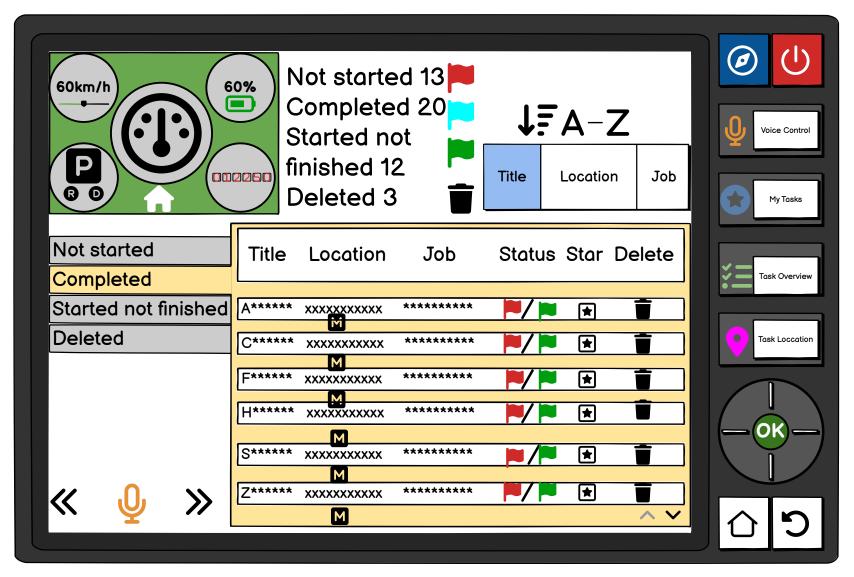
MFD - Task-Deleted Alert 7 / 14



For the action of deleting a task, an alert will appear to confirm that the user want to delete the task, to avoid any accidental deletions. Yes will direct users to the delete page.

No will stay on the current page.

MFD - Task-Completed 8 / 14

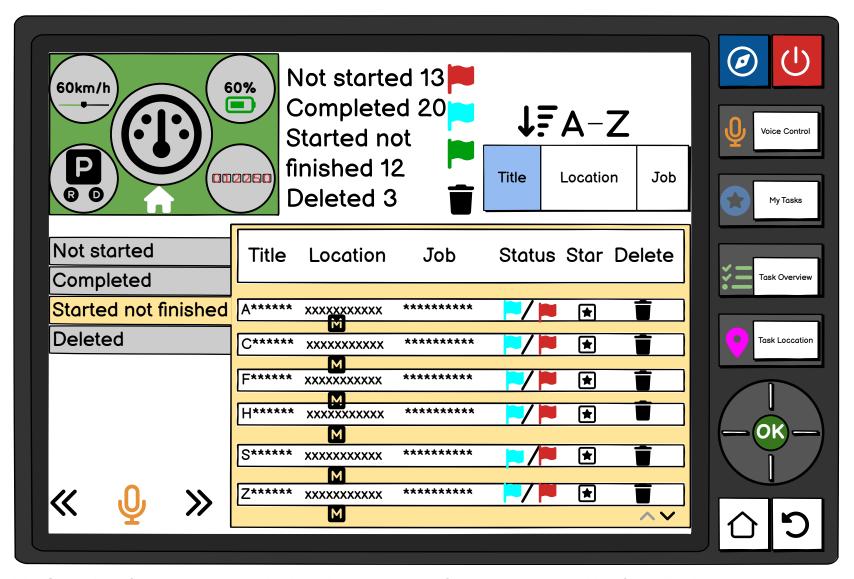


The Completed task page displays the total number for each category, with a filter allowing users to choose how they want to display the tasks. They can order them by title, location, or job. The selected option will stay highlighted (eg, title is currently ordered alphabetically).

For each task there's a map icon to direct users to the task map page, make the relation between task and map are stronger. In the information box, you'll find the title, location, and job description. If users want to make changes or update the tasks, they can click the flag to change the task status to one of the other two categories. They can also choose to star or delete the task.

By clicking the next page icon or the category name, users can move to the next page with the same basic structure.

MFD - Task-Started Not finished 9 / 14

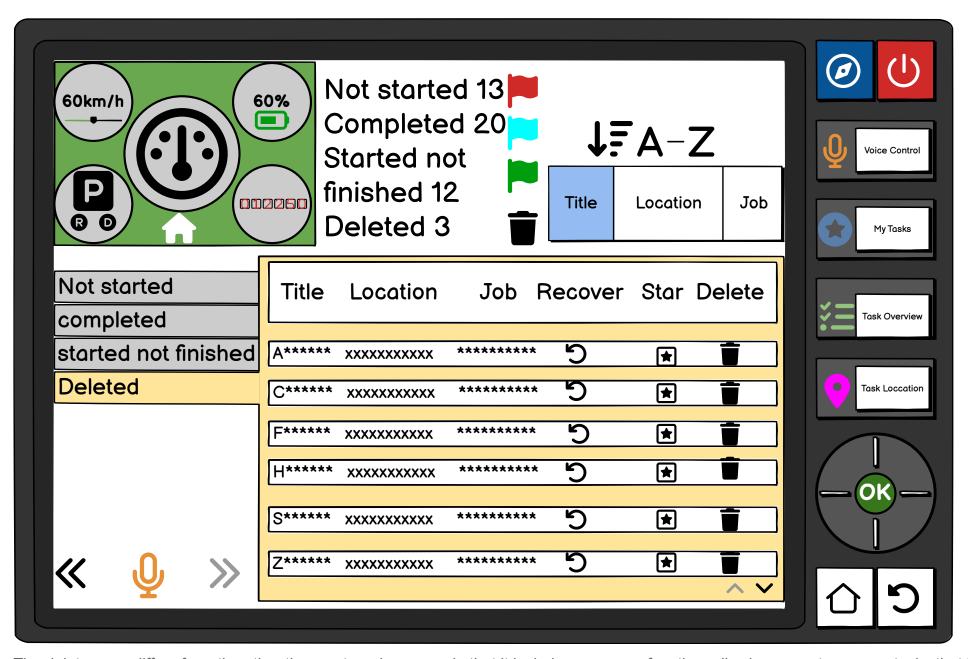


The Started not finished task page displays the total number for each category, with a filter allowing users to choose how they want to display the tasks. They can order them by title, location, or job. The selected option will stay highlighted (eg, title is currently ordered alphabetically).

For each task there's a map icon to direct users to the task map page, make the relation between task and map are stronger. In the information box, you'll find the title, location, and job description. If users want to make changes or update the tasks, they can click the flag to change the task status to one of the other two categories. They can also choose to star or delete the task.

By clicking the next page icon or the category name, users can move to the next page with the same basic structure.

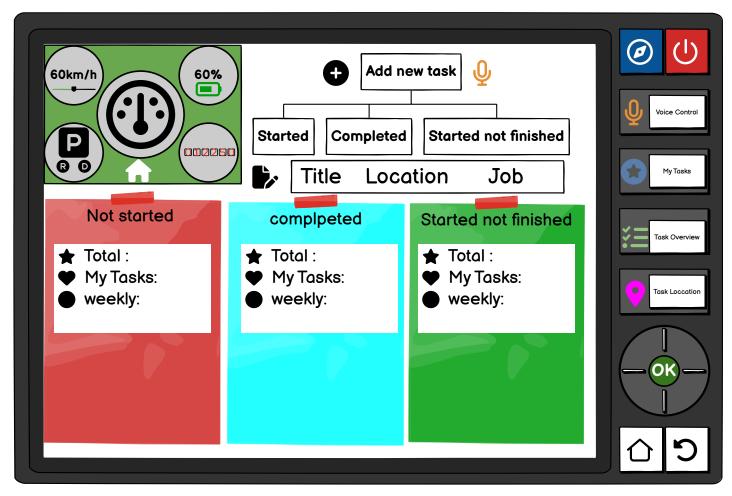
MFD - Task-Deleted 10 / 14



The delete page differs from the other three categories pages in that it includes a recover function, allowing users to recover tasks that have been deleted. However, deleting a task on this page will permanently remove it.

Other functions are similar with other three.

MFD -Task over view 11 / 14



On the task overview page, there is an important function that allows users to update tasks. By choosing a category for the new task, users can select a menu to add more information to the task. After adding, the task will be updated to the chosen category and will appear on the that page. The summary for each category allows users to direct to that page as well.

For a hands-free experience, the voice control feature allows users to add tasks using their voice.

reference

Voice control as a key design, follows Fitts' Law. By using voice control, you can reducing the time users need to use (no need to touch the screen), making interactions faster and more efficient.

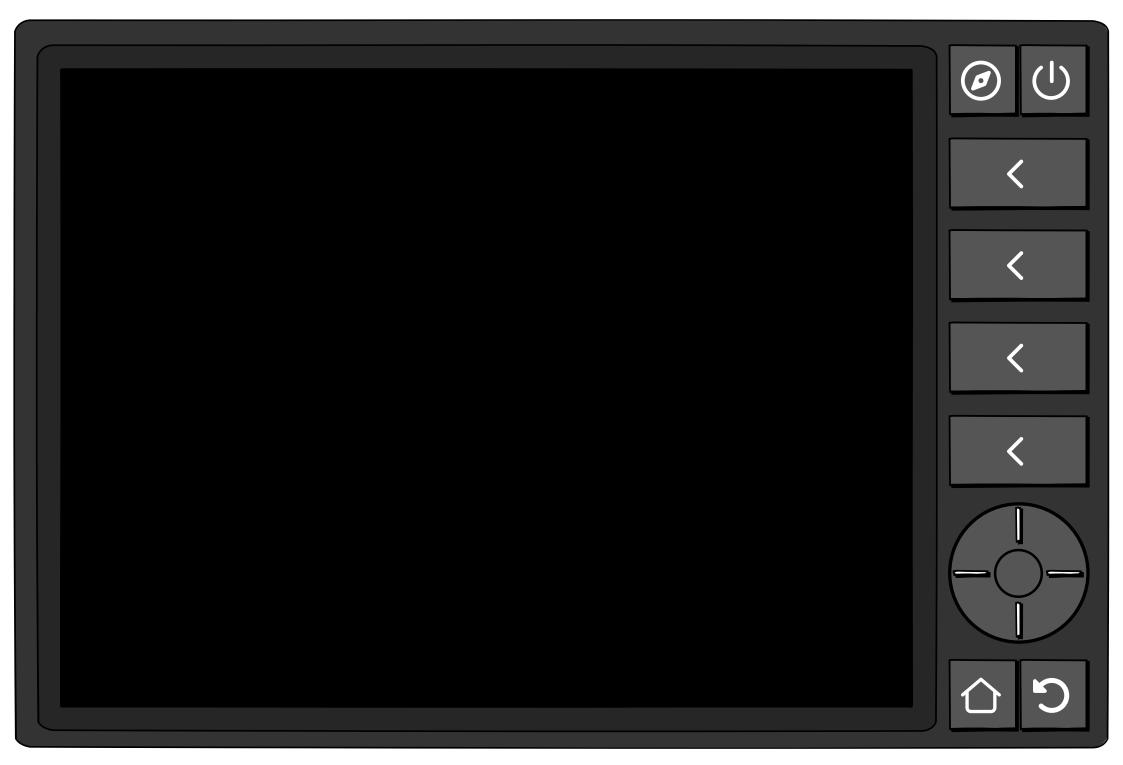
Citation: "Fitts' Law" on Interaction Design Foundation (2017). https://www.interaction-design.org/literature/article/fitts-law

All Settings next page 12 / 14



The next page for settings, more functions for users to choose and rearrange.

MFD off 13 / 14



Heuristic Evalution 14 / 14

Add your Heuristic Evaulation of your UTV MFD to the "notes" section.

------Heuristic Evaluation.

1. Visibility of System Status

Evaluation:

This system gives feedback to users about what's happening, like task progress and alerts when approaching tasks. This helps users stay informed about their tasks and navigation. However, some feedback could be clearer, especially in fast-moving situations.

Recommendation:

Add more visible indicators for task status (like progress bars, color changes) so users can quickly see what's happening. Also, make sure alerts stand out, especially when the user is about to reach an important task not only the location.

2. Match between System and Real World.

Evaluation:

This system uses common words and icons that make sense, so people easy to understand how touse the interface. But there are some similar icons, users might get confused.

Recommendation:

Use simple, easy-to-understand words and distinctive icons for all features, so users always know what they're doing.

3. User Control and Freedom

Evaluation:

Users have control over their actions in this system, such as the update, delete, and navigate between pages. But the task deletion process is not safe for the permanent delete.

Recommendations:

Introduce a confirmation step when deleting tasks, along with a clear undo or recover option. Especially for the permanent delete feature. Warning them this is a permanently deleting.