



ALTOR FINAL REPORT

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EXECUTIVE SUMMARY



EXECUTIVE SUMMARY

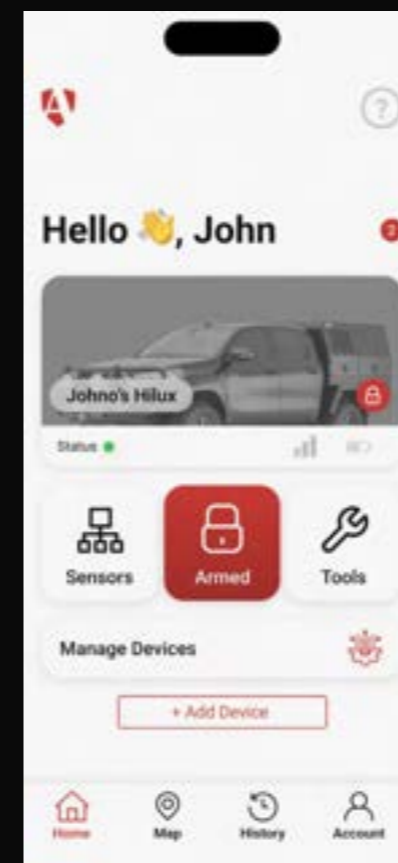
The client for this project is Altor. Altor is tackling a rampant problem of tradie tool theft and have produced an alarm system to counteract this problem. The alarm system is accompanied by a mobile application and is currently in beta. The scope of this project requires a design solution for their mobile application that will be an upgrade from the beta version of the mobile application. The design should consider the primary target audience (tradies) and be optimised for their needs.

The team has conducted both secondary and primary research to create the best design solution for Altor's mobile application. The key findings from our research suggests that:

- The design solution needs to include a minimalistic interface.
- There should be a priority on having the application be easy-to-use.
- Ensure that the key functions of the application are accessible and intuitive.
- The design should be considerate of the working environment that the target audience has to work in.
- Along with having alerts through the phone, there should be an inclusion of a notification system that is

immediate and cannot be missed.

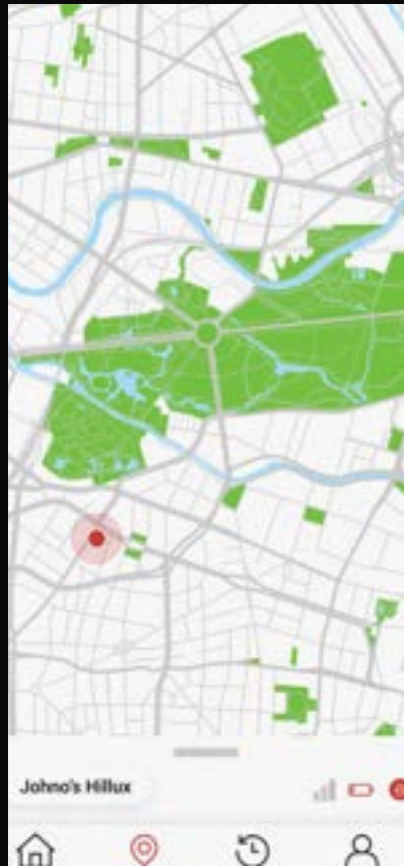
- An efficient onboarding system that guides the user through a step-by-step process without feeling too long.
- Address the concerns of users who have to park a considerable distance from their job site.



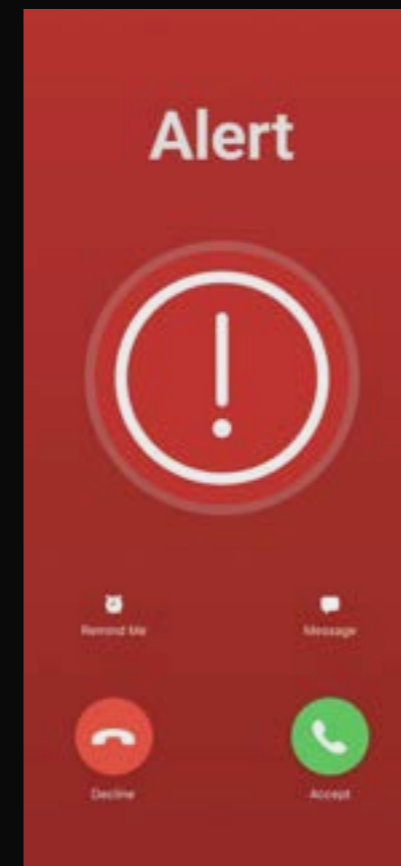
Throughout the whole app, the interface is kept minimalistic while having a clean design. The dashboard, on the home page, provides the user with quick access to the key features on the application. This is accompanied by a carefully placed arm/disarm button which accounts for the user's thumb placement. Additionally the colours selected and used within the app have a high enough contrast so the user can even use it when they are outside; on the job site.



EXECUTIVE SUMMARY



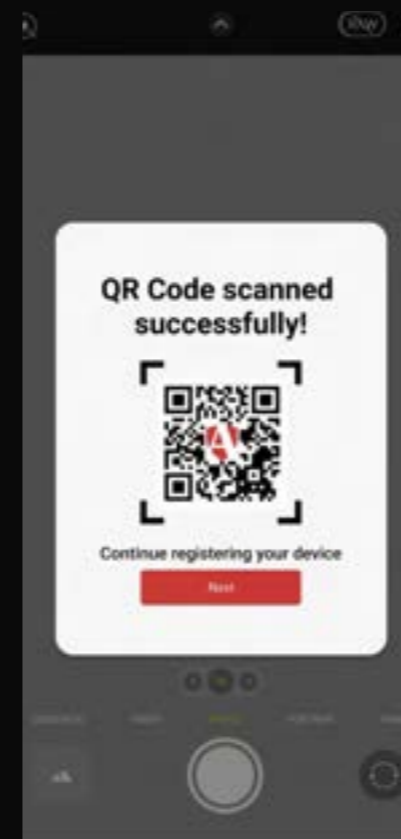
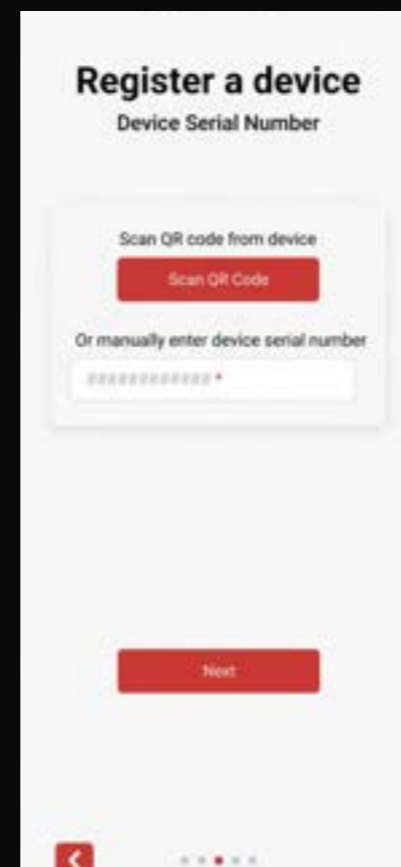
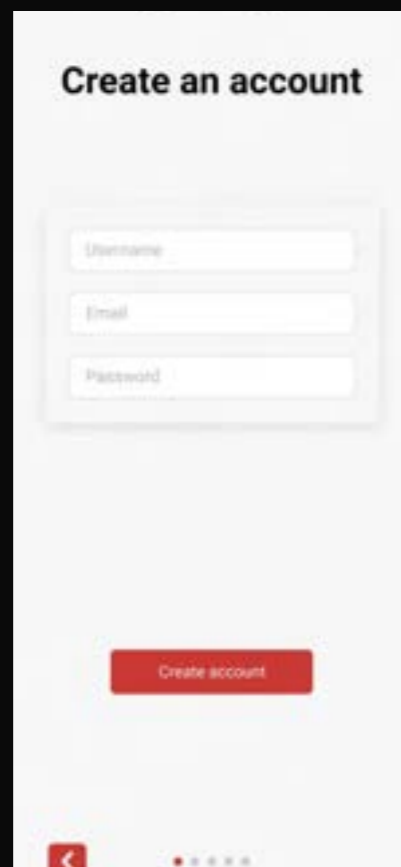
To address the concerns for users who have to park a considerable distance from their job site, we have also included a heat-map that indicates which areas have recently been breached by collecting data from other alto users.



Users will receive an alert when a breach to the system has occurred. This alert is done through a phone call and alerts the user through sound, vibrations and bright visuals.



EXECUTIVE SUMMARY



The whole onboarding process has been made easy for the user. On the sign in page there is an minimal amount of inputs that the user needs to put in to sign in. If the there was a new user, the sign up process has also been made easy through minimal inputs. They would then have to go through an onboarding process that has be made to be very easy. This is achieved with the inclusion of optional inputs that the user can skip and an option to scan a QR code to input the device serial number.



ABSTRACT

Abstract:

The primary focus of our project is to design a companion application for Altor's security device, that streamlines the user experience. Key objectives include creating a user-friendly mobile application that enables users to respond quickly to security incidents, and ensuring the app integrates seamlessly into users' daily routines without hindering their work. For the project to be successful, the design must prioritize user-centered principles, align with Altor's current branding, and significantly improve the usability of the application. Additionally, the application must fulfill Altor's specific requirement of enhancing the visual aesthetics of their existing application.

Research Question:

How can we design an app that is easy-to-use and minimalistic so that tradies can respond to security breaches of their assets quickly and efficiently?

Context:

Upon receiving the client, there was limited context and information available regarding the challenges faced by tradespeople. As a result of this, a deeper understanding of these challenges was essential to inform the design of a solution that meets their needs. We began by defining a structure for how to ascertain this information which led us to develop a set of accessibility needs, literature reviews, case studies, and interviews. To complete our secondary research we explored a variety of journals, articles, and competitors leading us to discover that over \$30M worth of power tools and hand tools were stolen in 2023" (RACV, 2024, para. 1). Along with this smart security systems designed to protect assets has also seen a rise amongst the home security sector. These security systems illustrate the growing consumer acceptance of smart security solutions, providing a template for how Altor can mirror the success seen in residential applications.



INTRODUCTION





INTRODUCTION

The Problem:

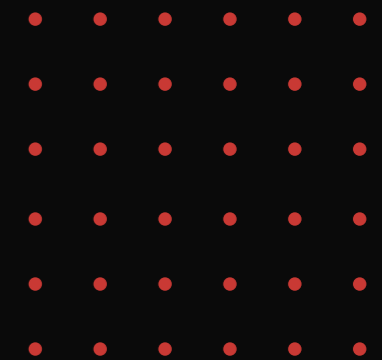
Tradespeople using Altor’s security app experience difficulty when disarming alarms and accessing their tools during daily activities. This is due to the current layout and design of their app, frequent false alarms, and delays, which hinder their ability to complete tasks efficiently. Consequently, this frustration discourages them from relying on the app for vehicle security and may negatively impact their income by affecting job completion times and affecting overall productivity.

Context:

The current landscape for tradespeople and the security of their tools is dire with over \$30M worth of power tools and hand tools stolen in 2023” (RACV, 2024, para. 1). This staggering lack of security and increase in thefts targeting tools and livelihoods has greatly affected the trade community across Australia, leaving many hardworking Australians unable to work.

Our Direction:

To address this challenge, our team will redesign the existing Altor application, drawing inspiration from competitors in the smart device sector, whilst tailoring solutions for the specific stakeholders that have a vested interest in the improvement of the application. The application’s design is further informed by contextual research, emphasizing optimal thumb placement, as explored in Steven Hooper’s research “How Do Users Really Hold Mobile Devices?” Which indicated the optimal positioning for key action buttons in the design and their relation to comfortable thumb positioning. This strategic placement aims to optimise response times, directly addressing a major usability issue in the current design.





STAKEHOLDERS

Key Stakeholders:

Understanding stakeholder needs is crucial for designing an effective and user-friendly solution. Key stakeholders include Altor's product development team, test users, and business partners who are invested in the design's success. Tradespeople are also critical stakeholders in the project as they are the intended target audience for Altor's flagship device.

Additional Stakeholders Identified:

Along with singular tradespeople, the potential to scale the scope of the application to that of a fleet management capability would ensure that companies who employ a multitude of tradespeople have an interest in the project. The potential scalability enables them to manage and look after their assets centrally and with precision.

Addressing the unique requirements of these groups is essential in ensuring a successful design solution.





OBJECTIVES & REQUIREMENTS

Aims & Objectives:

The primary focus of our project is to design a companion application for Altor's security device, that streamlines the user experience. Key objectives include creating a user-friendly mobile application that enables users to respond quickly to security incidents, and ensuring the app integrates seamlessly into users' daily routines without hindering their work. For the project to be successful, the design must prioritize user-centered principles, align with Altor's current branding, and significantly improve the usability of the application. Additionally, the application must fulfill Altor's specific requirement of enhancing the visual aesthetics of their existing application.

Technical Requirements:

The project must address specific technical requirements while adhering to the constraints of a limited development timeline. Due to these time constraints, limited user testing can be conducted, so while testing or iterative testing is feasible, extensive testing may be difficult to achieve within the semester time frame. Along with time constraints, the project is also limited by the capabilities of Figma as a software. While Figma is a powerful design tool, its limitations may restrict certain features or require creative workarounds to simulate functionality effectively within the prototype.

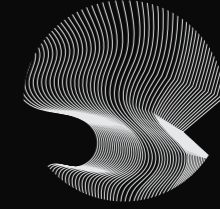
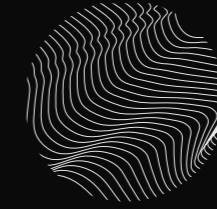
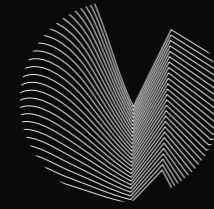




SECONDARY RESEARCH



SECONDARY RESEARCH



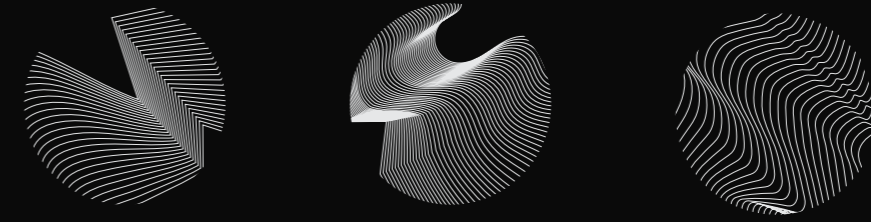
Introduction:

To design a solution that meets Altor's needs, we needed to explore how to design an app that is easy to use and minimalistic so that trades can respond to security breaches of their assets quickly and efficiently. This meant understanding the current issues tradespeople face with tool theft, the current competitor market, and considering ergonomic perspectives for mobile applications. By understanding these points, the redesign of the Altor companion app can be optimised for usability, interaction speed, and familiarity with design elements amongst similarly structured applications. The findings outlined in this section form the foundation for data gathering, inform design strategies, and shape the evaluation criteria to ensure a practical and user-centered outcome.





CURRENT LITERATURE



Thumb-zone Theorem:

Key literature surrounding the concept of thumb zones affected our designs across all stages of development. The exploration into how these zones played a role in usability was crucial for a successful design. The research paper "How Do Users Really Hold Mobile Devices?" by Steven Hooper, discussed the most common ways users both hold and interact with mobile devices. Hooper extrapolated heat maps that detailed the most common areas where users rested their thumbs while using a device. Steven notes that "Some users seemed to position their hand by considering the reach they would need"(Hooper, 2013, para. 19) when completing an action that required their thumb to be out of the traditional resting position. This information played a large role in assisting our designs to better meet a user's initial expectation, rather than forcing them into an uncomfortable anticipatory position..

Theft Prevention:

With the challenge of tool theft affecting all

tradespeople, resulting in "\$30M worth of power tools and hand tools were stolen in 2023" (RACV, 2024, para. 1), most if not all tradespeople struggling to find effective ways to secure their tools. They are increasingly being seen as easy targets for would-be thieves. To combat this RACV suggests marking them with bright unattractive markings, this 'devalues' the tool making it harder to sell, and less attractive to thieves (RACV, 2024, para. 12). Along with markings the recommendations from RACV provided more obvious solutions like to simply lock up said tools in a "heavy-duty toolbox with a strong padlock." (RACV, 2024, para. 7).





CURRENT LITERATURE CONTINUED

Impact of Security System:

Alongside the findings on crime and theft prevention from RACV, an extensive look into the current viability of Altor's companion app from a user acceptance perspective was vital in analysing competitors. The method of securing vehicles that Altor has designed resembles that of the modern home security system. These systems have become more advanced, and highlight essential strategies for preventing unauthorized access, such as using integrated alarm systems, remote monitoring, and real-time alerts.

Research from England illustrates a clear impact: homes with window locks increased from "a little less than 50% of all households in 1992 to a peak of 87% in 2009/10," contributing to a significant reduction in burglary risk (Tseloni et al., 2017). This means simply having a device present is sometimes enough to deter thieves, encouraging them to move on to an easier target.





COMPETITOR ANALYSIS



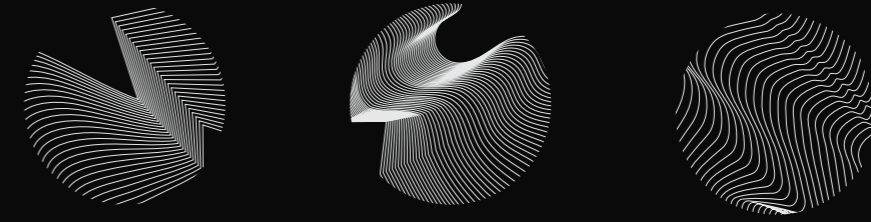
Competitor Analysis:

In examining case studies of similar applications, we observed various strengths and weaknesses based on user reviews and design choices. For instance, Eufy Security received mixed feedback on the effectiveness of its app for device management. Users who enjoyed the app highlighted its ease of use and innovative AI recognition features. However, critics pointed out issues with delayed recording activation after movement detection and slow loading times, which detracted from the overall experience. Meanwhile, Bouncie, a GPS vehicle tracking app designed for vehicle security and fleet management, excelled in providing users with a detailed overview of vehicle activities, including metrics on driving behaviors like speed, braking, and acceleration.



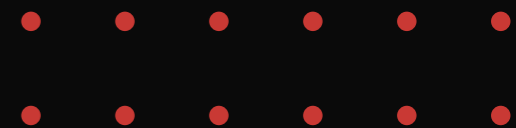


DESIGN IMPLICATIONS



The context and insights provided by the current literature and competitive analysis provide significant implications for our design solution. The substantial growth of tool theft outlines the importance for providing users with a reliable and efficient solution that not only protects their tools but also their livelihoods. Minimizing the potential for false alarms, and optimising response time plays a large factor in the viability of Altor as a product and service. This optimisation would enable Altor to become more widely accepted as a means of securing productivity and income. Therefore, the redesigned app must prioritize ease of use, ensuring that key functions, such as disarming the alarm, are accessible and intuitive, even in high-stress situations. Steven Hooper's research on thumb positioning informs the ergonomic placement of key action buttons, enhancing user experience and promoting efficient interaction.

Users are often vocal and direct when providing reviews on current security systems due to their sensitive nature, and need to provide sufficient protection to be worth using. Consistent user feedback shows comments regarding information clutter, poor contrast between widgets and menus, and a desire to view more data but only when specifically requested by the user as opposed to that being the default state. The competitors analysed expressed a variety of potential layouts and structures when it came to content and efficiency of interactions, None of which significantly aligned with our research question within the context of what our design solution should achieve. In contrast, the information we gathered was essential for the development of our application in the aspect of how not to design our application's visual layout.





PRIMARY RESEARCH



PRIMARY RESEARCH



Data gathering for primary research was conducted using semi-structured interviews. This method was used as it allows for the interviews to be focused on the topics that we want to explore while still giving us the “autonomy to explore pertinent ideas that may come up in the course of the interview” (Adeoye-Olatunde, 2021). Additionally, this method is great for getting detailed information and understanding users on a deeper level (Preece. J, 2015). Using semi-structured interviews, we were able to address and investigate our research question:

- ***How can we design an app that is easy-to-use and minimalistic so that tradies can respond to security breaches of their assets quickly and efficiently?***

We also made sub-research questions to address other key areas we needed to look into when conducting the interviews. These sub-research questions are:

- ***What are the most important features the users would want quick access to?***
- ***What would the hierarchy of all features on the app look like?***
- ***What method of contact/notification would users prefer when a break-in attempt happens?***
- ***How can we efficiently on-board new users to the app?***

The semi-structured interviews consisted of key questions that were needed to address both our research question and sub-research questions. The majority of these key questions were open-ended. This enabled participants to further expand on their own opinions, allowing us to obtain even more information than we planned for. On top of this, when the interviews were conducted the team would chime in with any questions that were currently related to the topic at hand. This would then create a casual environment and make the interview just seem like a normal conversation. Participants would then be more inclined to open up, giving us in-depth insights.

Using the data gathered from the semi-structured interviews, each team member then conducted thematic analysis. The thematic analysis method was chosen as it is able to help identify patterns across multiple datasets (Braun.V, 2019). Additionally, doing the analysis individually mitigates individual bias, gives different perspectives on the data and highlights findings that might be overlooked when only done by one person.





SAMPLE + MATERIALS



Sample:

In our primary research, we focused on understanding the perspectives of three electricians based in Melbourne, VIC, each of whom shared unique insights into tool security concerns that electricians face on a daily basis. The participants, all male, were recruited based on their occupation as electricians to ensure relevance to our research on tool protection needs.

We would have preferred to interview a larger sample of participants from within our target audience demographic but unfortunately due to schedule conflicts and a very limited time-constraint on this project we were unable to secure more participants.

Materials:

- Interview Guide: Provided a structured outline of questions and topics to cover during the session, keeping discussions focused while allowing flexibility.
- Audio Recording Device: Captured the full conversation for detailed analysis and reference post-interview.
- Notepad for Notes: Allowed for real-time documentation of key points and any notable insights during the conversation.

The audio recording and notes were used in tandem to ensure no information was lost in case of any technical, and to capture immediate observations or insights as they arose during the interviews.





INTERVIEW PROCEDURE

To support our primary research, a set of semi-structured interview questions were carefully designed. Each question (provided in the appendix) was tailored to delve into specific topics that would inform our understanding of user needs and experiences, including:

- ***Experience with Tool-Theft***
- ***Current Experience with the Altor App and Associated Emotional Responses***
- ***Usage of Smart-Home Technology and Related Applications***

The semi-structured interviews were conducted face-to-face and on-site to allow for direct interaction and engagement with participants. This approach encouraged an environment of open discussion, providing deeper insights into the participants' experiences.

In consideration for our participants' time, our group divided responsibilities, enabling multiple participants to be interviewed simultaneously. Before initiating each interview, we introduced ourselves to any stakeholders we had not previously met, outlining our roles and the scope of our assignment.

This introduction served a dual purpose: establishing rapport and ensuring participants understood the extent of our involvement in designing the new Altor app. We made the assumption that transparency about our role in the project would enhance the relevance of participants' responses, encouraging them to focus on the areas central to our investigation.

During the interview sessions, one team member led the interview while the remaining group members recorded notes and highlighted potential areas for follow-up questions. This structure allowed us to capture both immediate responses and more subtle points that warranted deeper exploration.

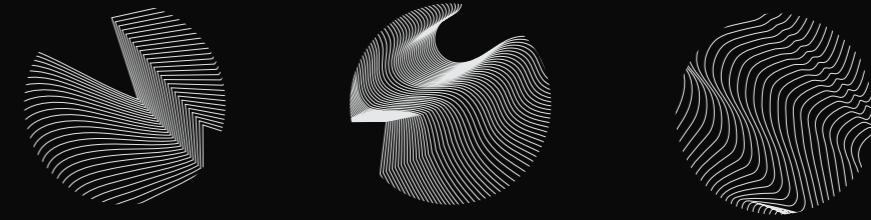
Upon completion of each interview, participants were thanked for their time and rewarded with a beer as a gesture of appreciation.

Unfortunately, unforeseen weather conditions on the interview day resulted in increased noise levels, which interfered with the audio quality, resulting in manual transcription of the interviews. This challenge caused delays in our timeline; however, the team effectively accounted for this issue, ensuring that this setback did not hinder the overall project progress any further.





INTERVIEW RESULTS



Following the transcription of the interviews, we proceeded with data analysis by constructing a. This method was chosen due to the team's familiarity with it, as well as its effectiveness in helping us identify critical areas for improvement within the current application.

The thematic analysis exercise was conducted digitally using Miro, allowing each team member to participate remotely, independently, and at their own pace. We believed that incorporating multiple perspectives would provide a more diverse range of interpretations, enriching our understanding of the interview data.

The analysis process began with each team member reviewing the interview transcripts to thoroughly familiarise themselves with the data. We then initiated a coding process, carefully combing through each of the transcripts to highlight information relevant to our research question.



Once coding was completed, we compiled our codes and began identifying emerging themes. Key themes and insights from the interviews included:

- **Phone Call Notifications:** Participants generally found phone call notifications effective and appreciated their reliability.
- **Preference for Minimalistic Design:** Users expressed a preference for minimalism, indicating that they prioritized functionality over aesthetic elements within the app.
- **Homepage Overload:** Many users felt the current app's homepage was cluttered with too many features, which hindered quick access to basic functionalities.
- **Scrolling for Arm/Disarm Function:** A recurrent issue noted was the need to scroll to the bottom of a list to access the arm/disarm function, which users found inconvenient and tedious.
- **Limited Experience with Smart-Home Technology:** Only one participant had any prior experience with smart-home devices, suggesting a potential learning curve for future users.



ADDITIONAL INSIGHTS

Appreciation for Automatic Arming Feature: The automatic arming function was well received by users. Additionally, our interviews yielded observations that are not directly aligned with our primary research question but nonetheless helpful and informative:

- **Quick Login Preference:** *Users favoured a quick and seamless login process, indicating its importance in overall user experience.*
- **Frequent Use of Arm/Disarm Feature:** *The arm/disarm functionality was the most frequently used feature, with other functions only accessed in specific circumstances, such as following an incident.*
- **Parking Challenges:** *One user highlighted a challenge related to jobsite parking, mentioning that inadequate parking options often force users to park in areas where their vehicles cannot be visually monitored.*
- **Through the thematic analysis process, these findings provided a clearer picture of users' core needs and frustrations, setting a foundation for the next stages of our project development.**





DISCUSSION

The data collected from our semi-structured interviews provides valuable insights into redesigning the app in a way that enables tradies to respond swiftly and efficiently to security breaches, aligning closely with our primary research question:

“How can we design an app that is easy-to-use and minimalistic so that tradies can respond to security breaches of their assets quickly and efficiently?”

Importance of Quick Access to Key Features:

A recurring theme across user responses was the need for streamlined access to essential features, with a strong emphasis on the arm/disarm functionality. Users indicated that this feature is the most frequently used and should, therefore, be highly accessible. Users have expressed frustration with how the current app requires users to scroll through the app to locate the arm/disarm feature. This frustration reiterates the need for a more intuitive hierarchy that brings frequently used functions to the forefront, reducing the time required to activate or deactivate the security system.

This insight directly addresses our sub-research question, “What are the most important features the users would want quick access to?” The high prioritisation of the arm/disarm feature suggests

that our app should be designed with this function prominently displayed on the homepage or in an easily accessible menu, to allow users to rapidly respond to security breaches.

Hierarchy and Minimalism:

Participants voiced a preference for a minimalistic interface, with many emphasizing that functionality should take precedence over aesthetics. They highlighted issues with the current app’s homepage, which they felt was overcrowded, making it challenging to locate key features quickly. This feedback indicates that users favour a design that reduces visual clutter, allowing for a clear hierarchy where core functions are immediately recognisable and secondary functions are accessible but not distracting.

These observations respond to the sub-research question, “What would the hierarchy of all features on the app look like?” The findings suggest that a minimalist design, focusing on fewer but more important features, would enable tradies to respond quickly to incidents. In practice, this may mean an oversimplified homepage that displays the most critical functions—such as arm/disarm and quick access to recent notifications—with additional features placed in secondary menus.





DISCUSSION CONTINUED

Preferred Notification Method:

In terms of notifications, users showed a strong preference for phone call notifications in the event of a break-in attempt. This method was well received as it is direct and likely to capture the user's immediate attention, which is critical in urgent situations.

This insight addresses the question, "What method of contact/notification would users prefer when a break-in attempt happens?" The preference for phone call notifications reinforces the need for a notification system that is both immediate and unmissable.

Onboarding and Familiarity with Smart-Home Technology:

Lastly, the interviews highlighted that most users have limited experience with smart-home technology, with only one participant reporting familiarity with such systems. This finding has implications for the app's onboarding process and layout, suggesting that simplicity and clarity will be essential in introducing users to the app's functionality. A brief, user-friendly onboarding sequence that quickly familiarizes new users with the primary features—particularly the arm/disarm

function—will likely improve the overall user-experience.

This observation responds to the sub-question, "How can we efficiently onboard new users to the app?" A simple, step-by-step onboarding tutorial could assist users in learning the app quickly, particularly given their limited experience with similar technology. This approach not only enhances the app's accessibility but also aligns with users' preference for straightforward functionality.

Additional Opportunities:

Our key research findings have also opened up opportunities for us to explore additional areas of innovation. During the interviews, it became aware to us that on occasion, users are forced to park their vehicles in areas that make it otherwise difficult to keep an eye on them. To address this concern, we propose integrating a heat-map that displays theft-prone areas using data collected from Altor devices. Including this feature within our application allows users to make informed parking decisions based on Altor's own device data, offering the opportunity to mitigate the risk of tools being stolen.





INTERVIEW LIMITATIONS

The relatively small sample of users available for testing resulted in a somewhat limited response and impacted the external validity of the findings. This meant that while the participants were well-informed and had extensive experience with the application, the data may not apply to a broader population. That being said, it is still possible that the user-base shares a potentially accurate representation of a broader dataset due to their needs all remaining the same across each interview. Consequently, the participants may also share a bias due to their extensive history with the app's current form and relationship with their boss, a member of Altor.



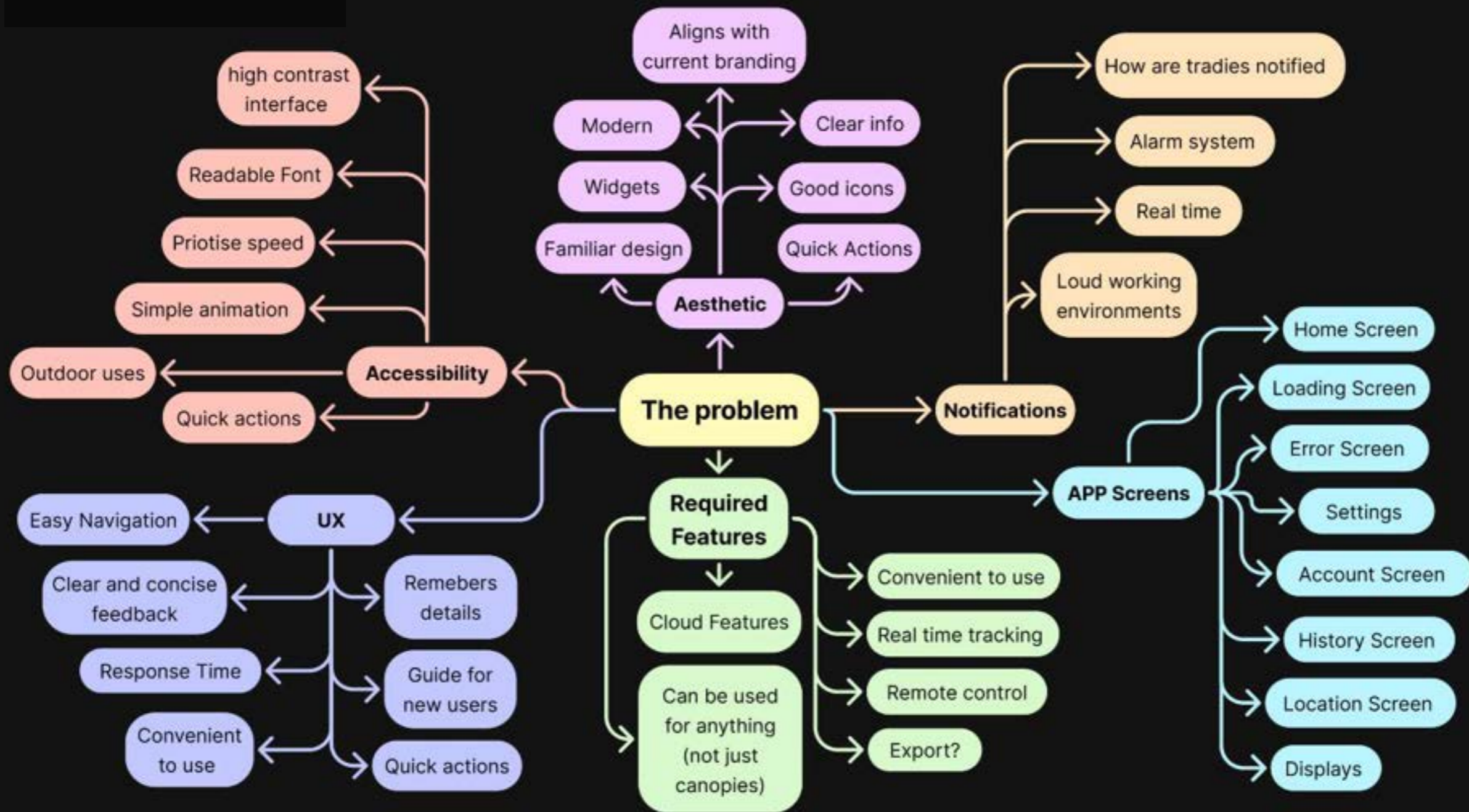


IDEATION

IDEATION: BRAINSTORMING



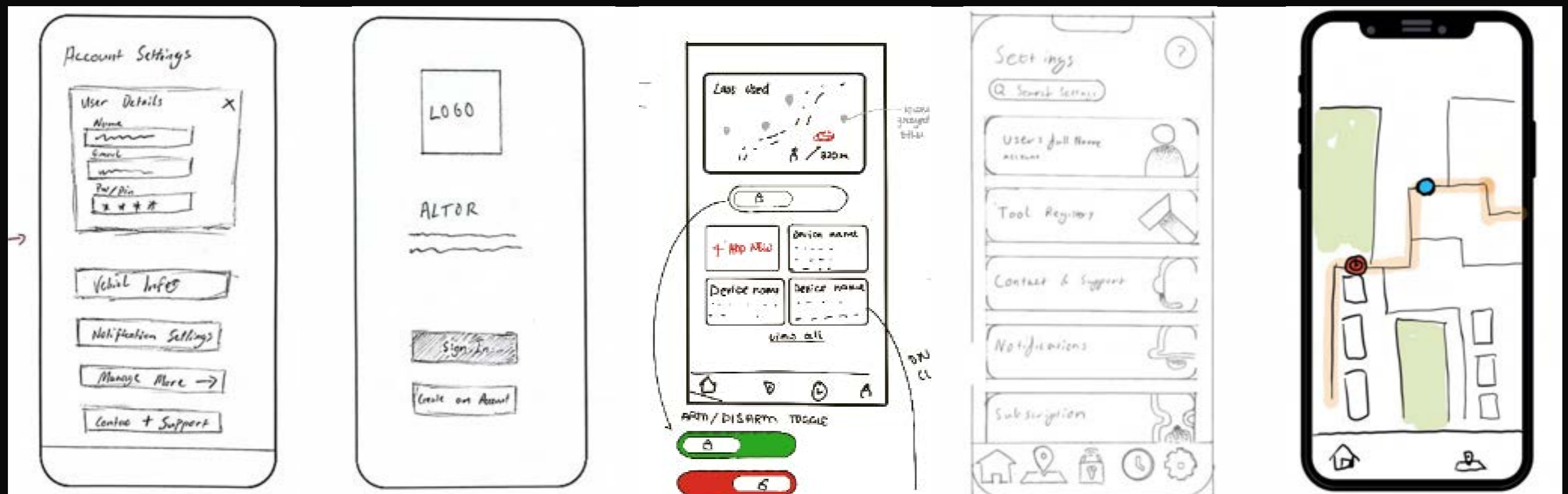
We utilised our research question and problem statement to explore the screens, features, and other potential design solutions. This exploration was done as a group through the method of a lotus brainstorm.



IDEATION: WIREFRAMES



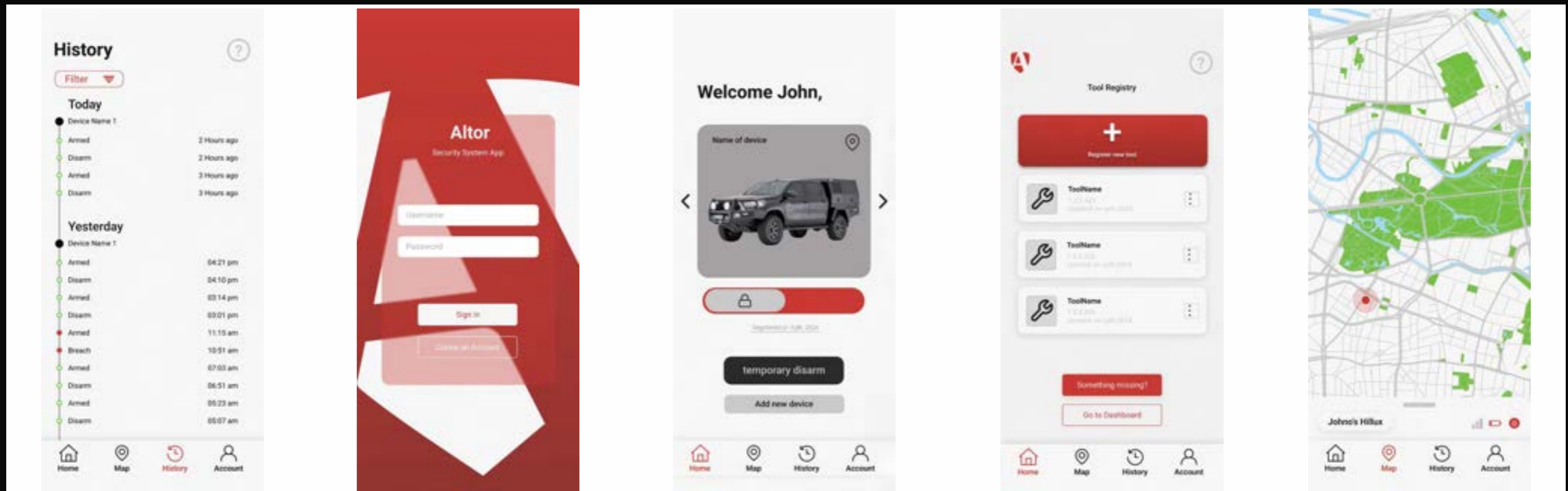
Early wireframes focused on simplifying the app's layout, emphasizing thumb-friendly navigation and easy access to key features. (See appendix for extended wireframe diagrams)



IDEATION: **EARLY PROTOTYPES**



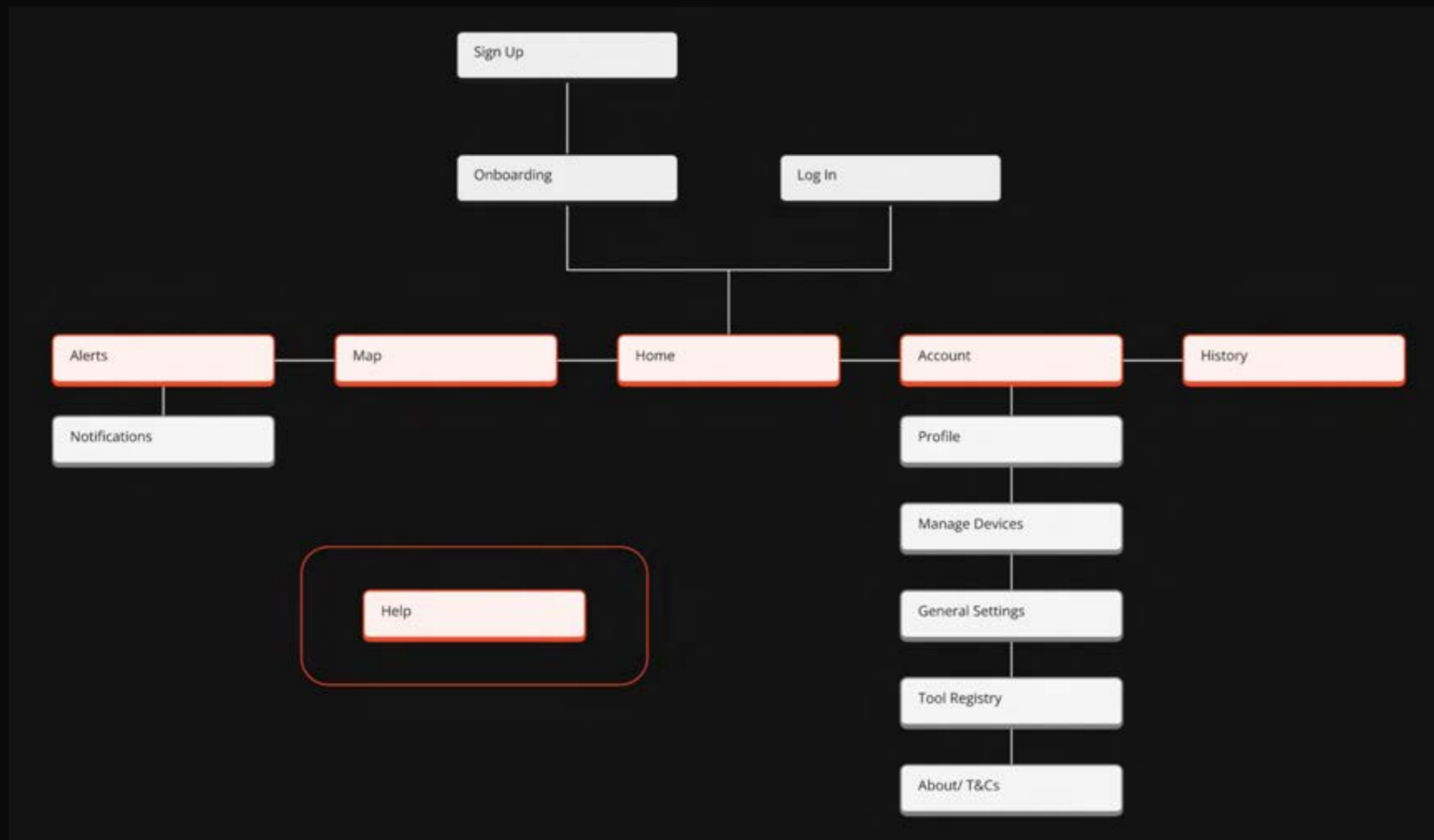
Prototypes were tested in high-fidelity formats to gather initial user feedback, which informed later iterations.



IDEATION: SITE MAP



The sitemap was developed to conceptualise conceptualize the layout so that users could reduce the number of actions needed to complete tasks, aligning with Altor's desire for ease of use.



IDEATION: WORST POSSIBLE IDEAS



We used the “worst idea” method to help generate and ideate good ideas that app could include. Initially we created a list of “worst ideas” which were design ideas that would not work for the app at all. This helped warm us up and transition to ideating good ideas that could be included in the app.

Bad Ideas:

- Put the status icons in their own separate sections
- Navigation menu on the side of the screen
- Logout button on the home screen
- Arm/disarm buttons not on the homepage
- User has to yell at the phone to arm/disarm
- User has to have their phone touching the vehicle to unlock the arm/disarm feature
- Really small text consistent throughout the whole app (no headings)
- Make it really hard to read (bad colour contrast)
- Add an “are you sure?” to every action
- Make the user put their password in to navigate each page
- Make the buttons really small
- Add a recaptcha to disarm

Good Ideas:

- Home screen changed to dashboard.
- Each device has its own section (bento grid).
- Minimise the amount of pages on the whole app.
- Have the map screen only be a map screen.
- Include icons on the event log.
- Tool list under account settings.
- Dashboard widgets - just tap the widget to disarm.
- Pop up overlay on app for alerts.
- Give user a call and notifications for alerts (option to select which ones they want in the settings).
- Minimalistic and clean design (while following brand guidelines).
- External link to manage more user settings/payment settings.
- Widget on the phone home screen.
- Minimise the amount of actions users has to take to.
- Complete any action and navigate through the app.
- Clear display of status and where the user is on the app
- Utilise recognition rather than recall as much as possible.
- Step-by-step (hand holding) sign up process.

PERSONA



Jack Wilson
Electrician

“

“It's so frustrating having tools stolen! Reporting the incident or replacing the tool is such a pain”

Age : 27

Gender : Male

Occupation : Electrician

Location : Melbourne, VIC

Bio

Jack Wilson is an electrician. He has 10 years of experience in the trade and has built a reputation for reliability and quality workmanship. Jack is busy, often juggling multiple jobs in a day, and has had his tools stolen while on the job. Often times he doesn't know when theft happens and is unable to stop it. His tools are also difficult to replace sometimes and without proper details the incidents are hard to report. Jack wants peace of mind at work, knowing his tools are secure and his vehicle is safe.

Goals

- Efficient: Jack is generally busy at work and needs to do very quick actions on the app while he is working
- Safekeeping of tools: Jack wants easy access to his tool details in case he needs it to make a report in case of theft
- Arm/ disarm: Jack needs different tools when working so he wants to be able to arm/disarm very quickly to get tools in the middle of work
- Easy functions: Jack is quite busy at work, he wants to be able to quickly take out his phone and do minimum actions to use the app like using a face id to unlock

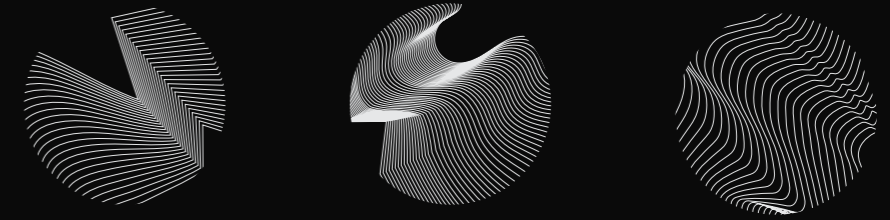
Needs

- Loud notifications: User needs to be able to hear the notification
- Smooth functionality: User needs to use the app intuitively and not spend too much time figuring things out since he's busy
- Arm/disarm: User's main function is to arm or disarm their vehicle when parking, taking tools.

Pain Points

- Layout: Users expressed that the layout is too cluttered and not intuitive to actions which can be frustrating when trying to do easy things like arming.
- Efficiency of use: Users mentioned lack of information hierarchy and unnecessary navigating / scrolling
- Security concerns: The user is worried about lack of secure parking and is more than willing to take preventative measures
- Loud working environment: Users often work in really loud environments and generally respond to phone call notifications more than ping notifications.
- Auto arm/disarm: Users currently use default time set and say having custom time set would be beneficial.

USER JOURNEY



	Login / Sign up	Main Sensors page	Disarming a sensor	Opening vehicle after disarm	Logging alarm
User Actions (Activities)	The user is logging in to the altor app	User can see all sensors on the home page	The user is unable to find where the disarm button is	The user clicked on the disarm button and went to open the car door The alarm goes off and the user is surprised	The user sees the notification that an alarm went off
Pro Points (what was beneficial or helpful)	The user can easily sign up or login to enter the app	Everything is on one page and the navigation at the bottom is simple and understandable	The colours of sensors gave some indication of locked or unlocked		The user can easily view the history on the history page
Pain Points (difficulties the user had when testing)	The sign up page does not have a lot of detailed instructions	User isn't sure of the names of each sensor which can be confusing Hence the user is not sure what sensor to choose to arm or disarm	The user does not have any clear indication as to which button is arm/disarm	The user was unsure if clicking the button worked or not	The user is unable to tell when the alarm went off exactly The user is not able to report it as a false alarm and it interferes with their records
Emotions (Mood Meter)	<p>DELIGHTED</p> <p>NEUTRAL</p> <p>FRUSTRATED</p>				
Observations (Observations made when testing)	Users are able to use sign up and login easily since they are very familiar functions	The main page added too much cognitive load on the user and actions are not clear	The user struggled for a bit but eventually figured out the button because of the red and green colour	The button is fairly small and there is no indication of arm or disarm when clicked	The history screen is not understandable and a false alarm report feature could be added here





PROTOTYPE DESIGN



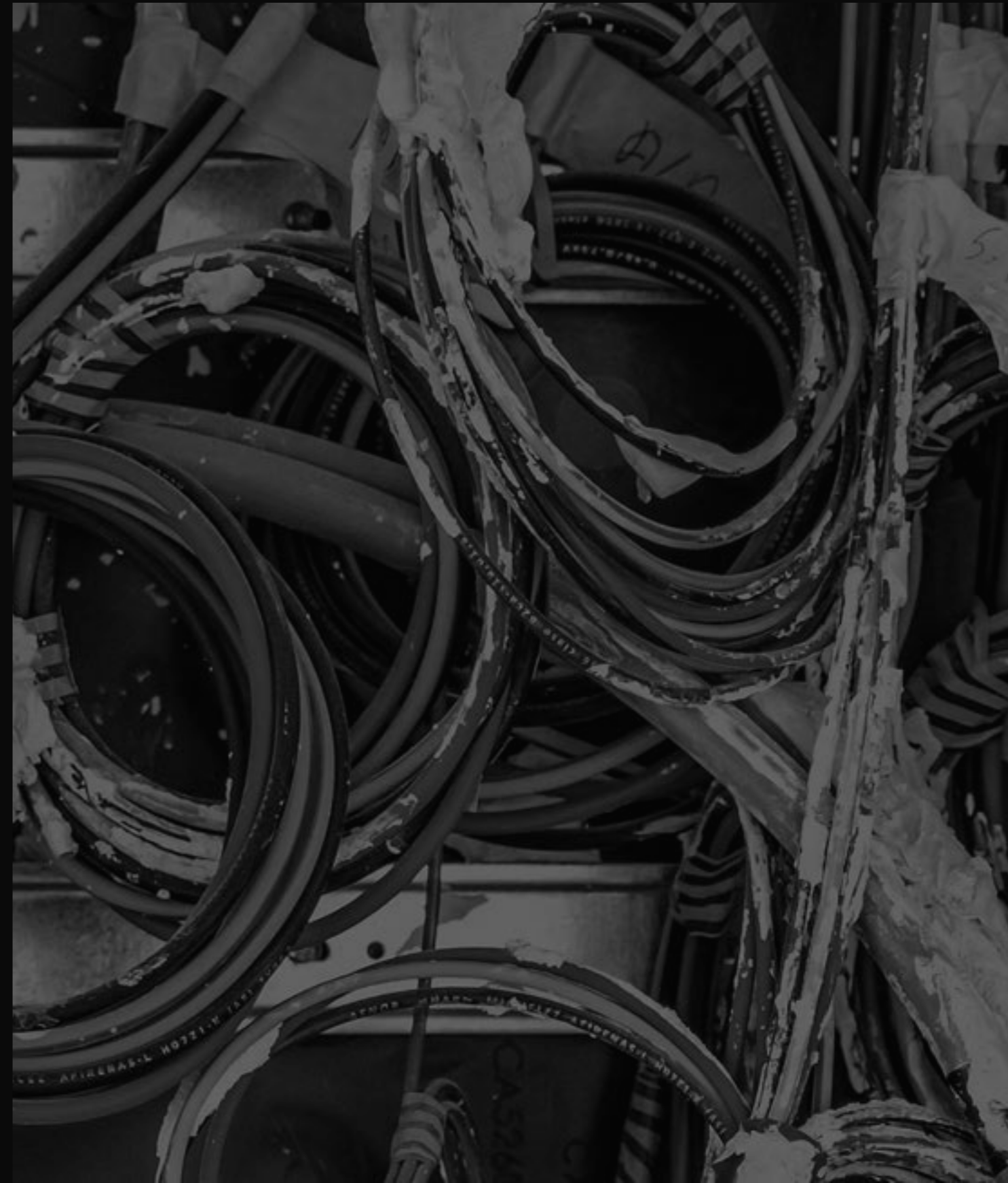
PROTOTYPE DESIGN



Overview:

The design solution developed is a high-fidelity prototype that provides the client, with a multitude of features and additional considerations from outside the specific scope of the brief. The design is centered around the core concepts of our research question, relating to how we can design a solution that increases ease of use and follows a minimalistic approach for optimal user satisfaction. Key features explored include, quick access buttons to manage the armed state of vehicles, tool management solutions, map data, hot spot zones to advise users on unsafe areas, and history pages so that users can make the most of the device's data.

This solution provides improved usability, built upon the core concepts presented in Altor's first rendition of their application. The primary improvement of the design centres around its improved hierarchy and layout which results in an indirect economic impact with regard to the user-group, as they will be able to efficiently protect and monitor their tools, but also keep track of various vehicle states, resulting in a potentially streamlined workflow when completing jobs. The research into ergonomic findings greatly impacted the redesign with a focus on making the app's control seamless for daily use.





DESIGN CONSIDERATIONS

Difference from existing solutions:

Besides the obvious difference in branding when compared to existing solutions, the biggest difference would be the features of designs we decided to include within the app. Compared to other apps who are similar to Altor, there are other features we had the opportunity to include that other similar apps couldn't. These features include a tool registry feature, the map page and even the job logging feature.

Why this solution works:

This design solution is able to work primarily due to the care, planning, and research we conducted. Our findings were able to direct us in what shape the design of the app will take. The findings are also the reason we decided to include the unique features that don't exist in other solutions.

Accessible and Inclusive Design:

Our design solution incorporates key accessibility and inclusivity features (see appendix for full accessibility needs), including high-contrast visuals for readability and a multi-sensory alert system (sound, touch, and sight). Additionally, we adhered to Apple's Human Interface Guidelines by avoiding "absolute" black, optimizing navigation bar design, and ensuring clear, appropriate iconography (Apple, 2024).



DESIGN EVALUATION

320CL

CAT

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DESIGN EVALUATION



Evaluation for Inclusivity and Accessibility:

Before testing our application with users, we conducted an evaluation based on specific usability criteria to ensure that it was user-friendly and inclusive.

First, we assessed colour choices by testing them against WCAG 2.1 contrast requirements, confirming that all colours met the standards.

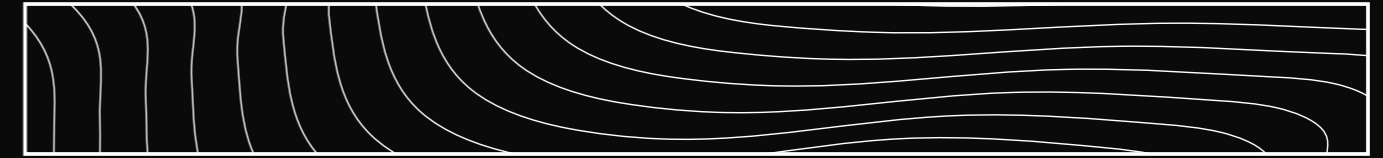


Next, we evaluated the design for mobile usability, following Steven Hooper's principle that around 75% of mobile users navigate using only their thumb. Given that our application is designed exclusively for mobile, we prioritized optimizing button placement and interaction zones accordingly.





DESIGN EVALUATION



Think-aloud Sessions:

We then conducted think-aloud sessions with five participants to observe real-time user interactions. Overall, the tests demonstrated successful task completion, though certain usability issues highlighted areas for improvement.

The four main issues were:

- ***Uncertainty around the Arm/Disarm Button:*** Users interpreted the button inconsistently.
- ***Difficulty Finding the Tool Registry Page:*** Some users struggled to locate this section.
- ***Unclear Purpose of the Heatmap:*** The heatmap's functionality was not immediately obvious to ***participants.***
- ***General Confusion about App Functionality:*** Some participants were unsure how to navigate or use features effectively.

We implemented design adjustments in response to this feedback. We revised the language on the Arm/Disarm button to read "Armed/Disarmed" for clarity, added quick access to the tool registry on

the homepage by replacing the history button, and redesigned the heatmap with a tap-to-explain feature to remove confusion. Additionally, a help button was added to each page to provide quick, context-specific guidance for users.

Following these changes, we conducted a preliminary demonstration of the app with stakeholders from Altor. The feedback was generally positive, with only minor adjustments needed based on the clarification of the device's functionality. Additionally, Altor requested a job-logging feature, which we integrated promptly into the history and home pages.

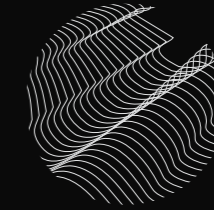
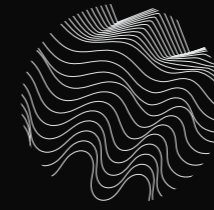
These iterations brought our design closer to our usability and inclusivity goals, making the application clearer and more accessible for users.



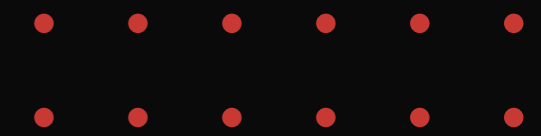
A dark, monochromatic photograph of a mechanical assembly, possibly a keyboard, with the text "FINAL PROTOTYPE" overlaid in white. The image shows a close-up of various mechanical components, including what appears to be a keyboard mechanism with keys and a large, curved component. The lighting is dramatic, highlighting the textures and shapes of the parts against a dark background.

FINAL PROTOTYPE

FINAL DESIGN SOLUTION



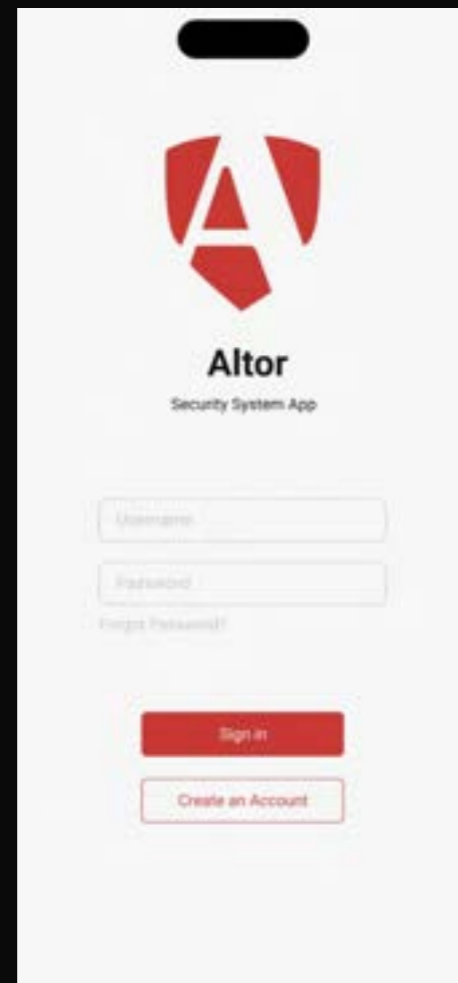
Mockups



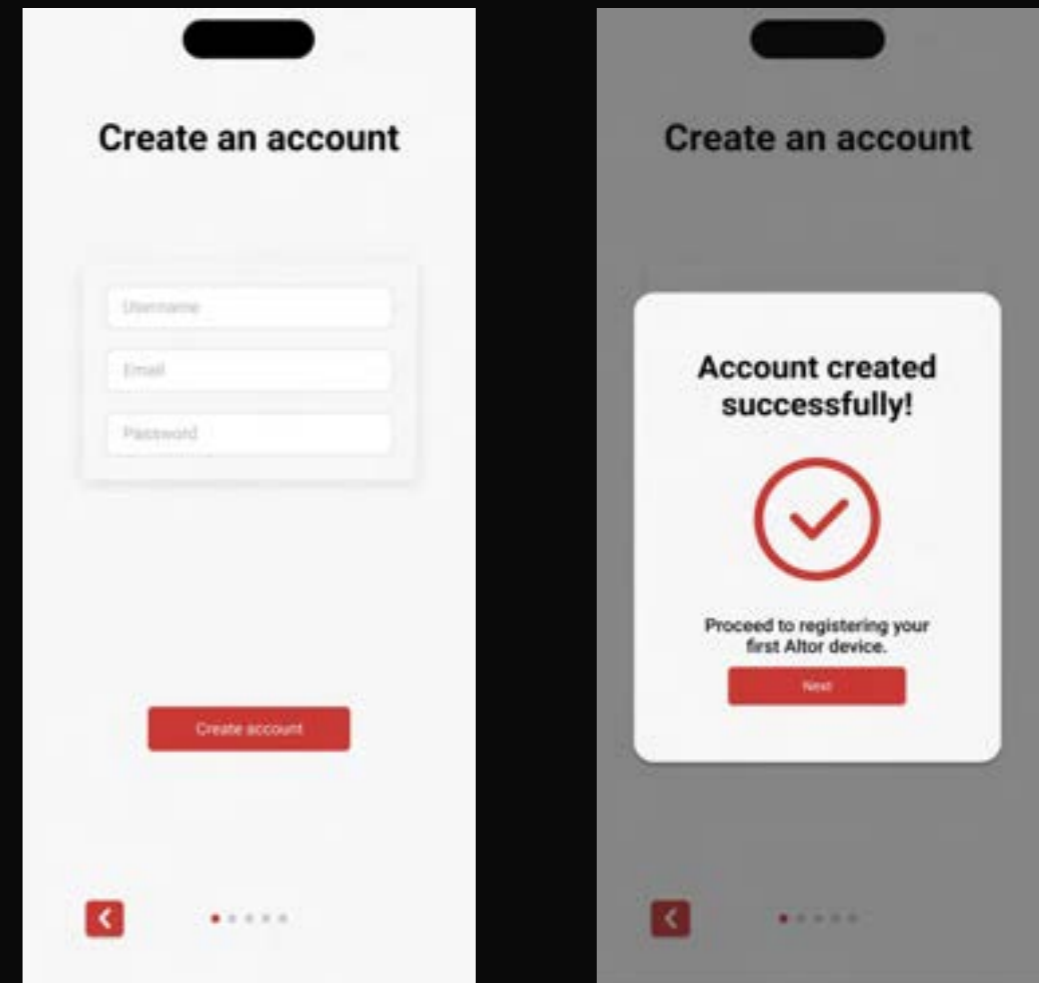


FINAL DESIGN SOLUTION

Log In



Sign Up



A simple log in screen that only requires a username and password.

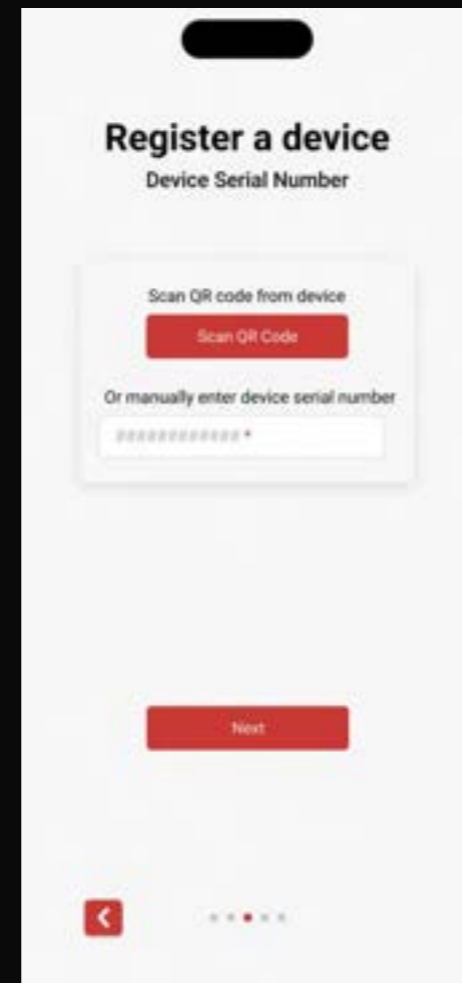
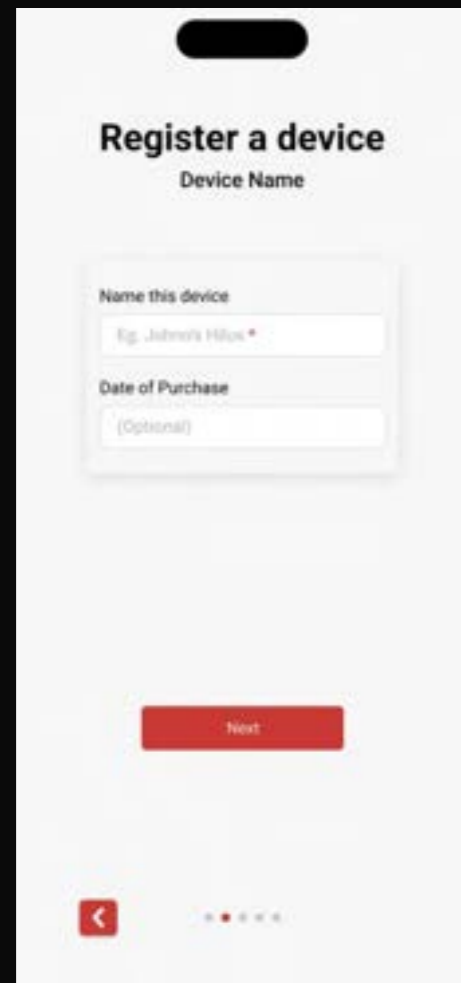
A new user signing up would only have to input their username, email and password. After completing that, the user would then get a confirmation before starting the onboarding process. Creating a new account and the onboarding process is separated to keep the user updated on where they are currently at and make the whole process feel shorter.





FINAL DESIGN SOLUTION

Onboarding



The onboarding process starts off by registering a device. For the first step, the only necessary step is for the user to name the device.

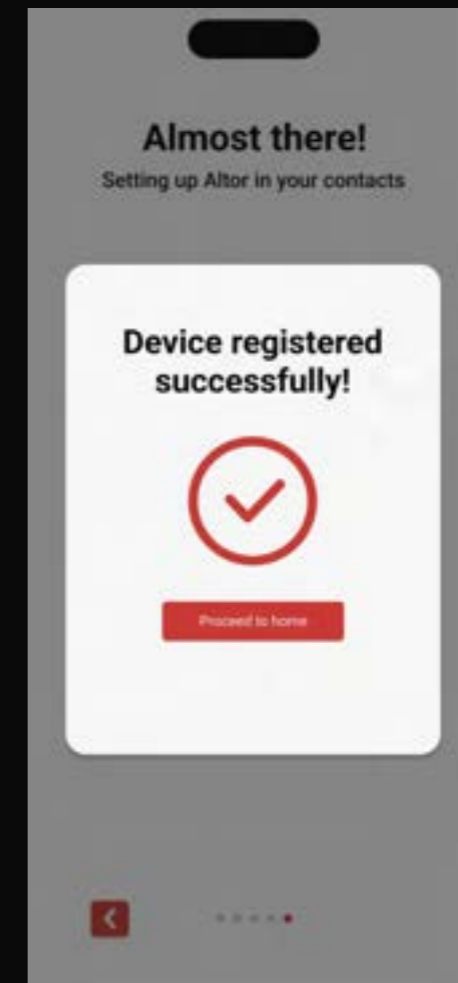
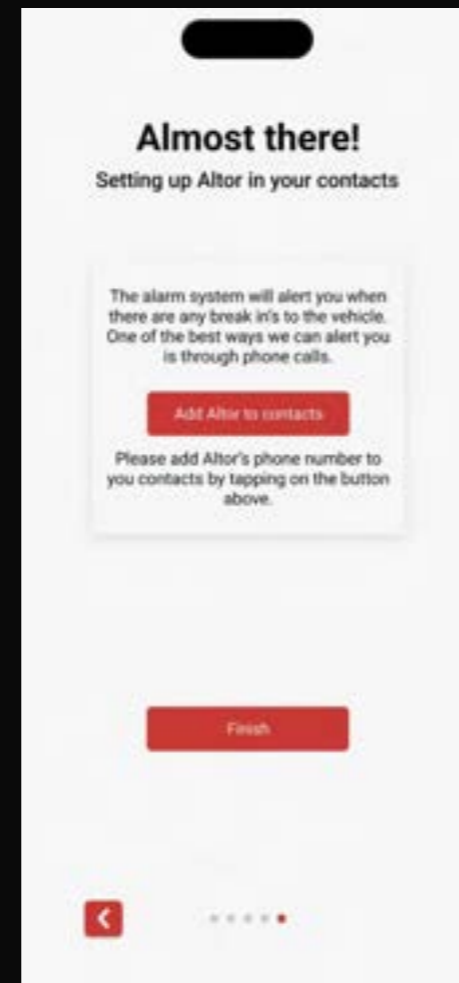
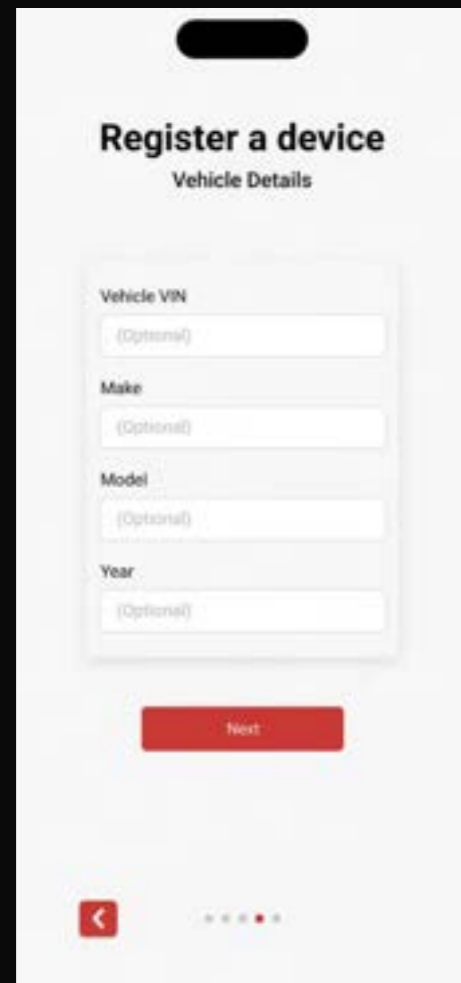
The next step is to input the device serial number. This can be done manually or scanned using a QR code that would come with the Altor device on purchase.





FINAL DESIGN SOLUTION

Onboarding cont.



Users can then input their vehicle details, however it is all optional. Additionally, throughout the sign up and onboarding process, the red dots on the bottom indicate which page they on.

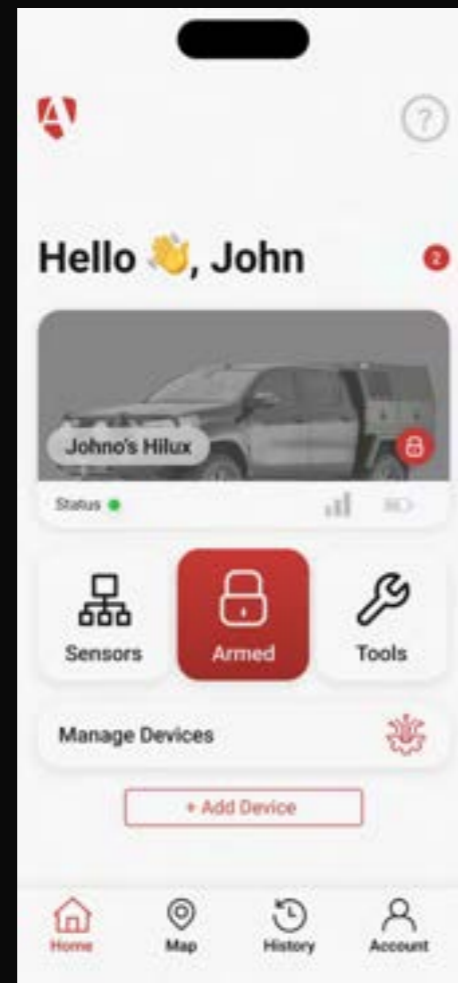
The final step of onboarding process involves advising the users to add Altor to their contacts so that they can receive alerts through phone calls while knowing that its from Altor.



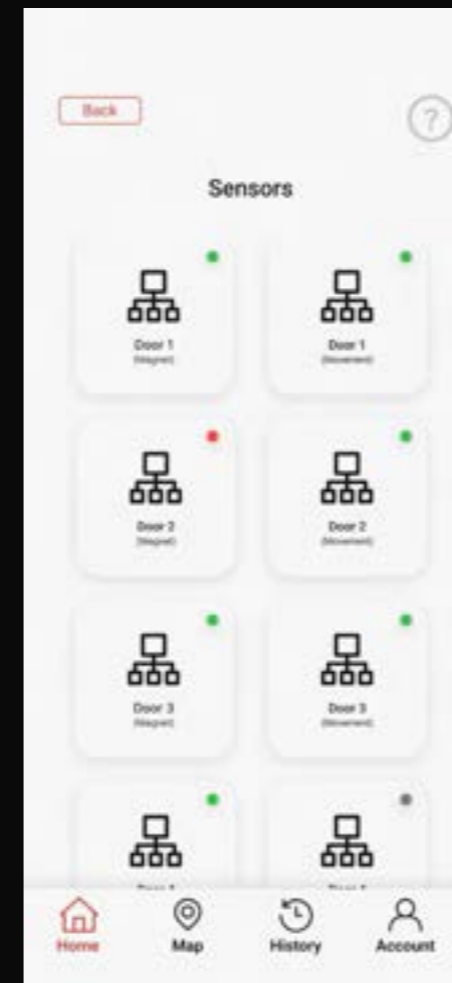


FINAL DESIGN SOLUTION

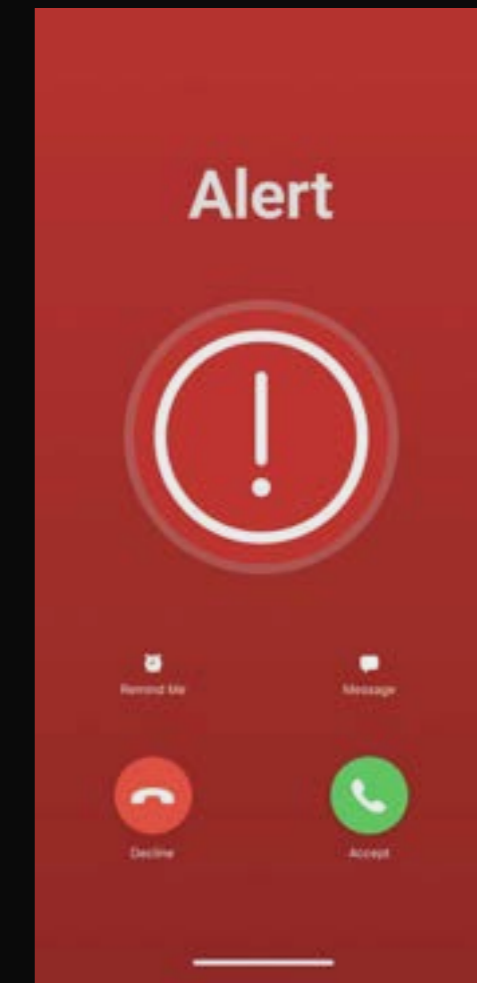
Home Dashboard



Sensors



Alert



The home page acts as a dashboard for the user. The most important feature on the dashboard is the arm/disarm button. It visually stands out, is large enough to be easily tapped on and placed in a spot where it can easily be accessed, even when the user is one hand.

The sensors page shows the status of each sensor within one device (Altor alarm system)

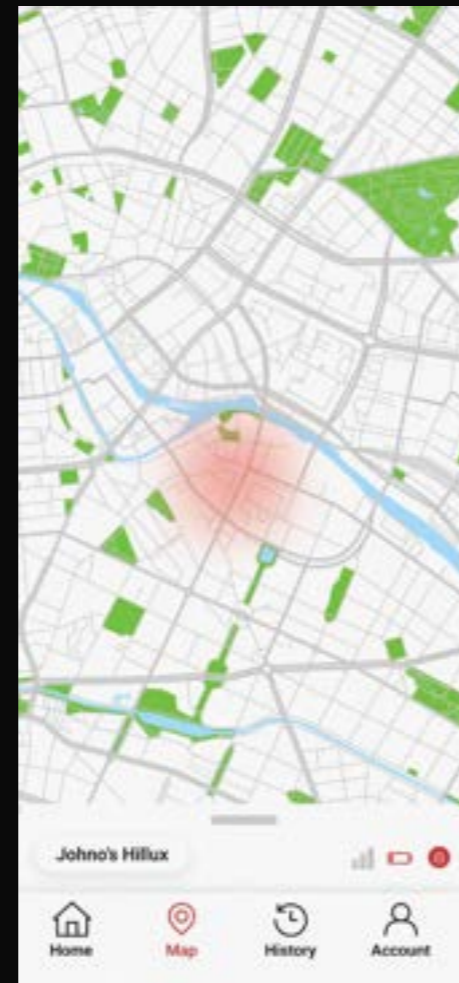
When a breach occurs, the user will get a phone call to alert them of a breach.





FINAL DESIGN SOLUTION

Map Page



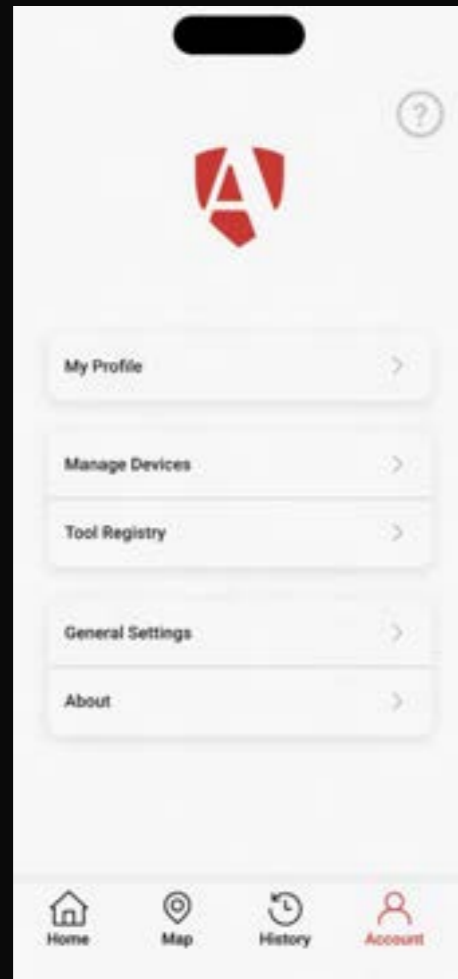
The map page shows where the alarm system (vehicle) is located. The user can also arm/disarm the alarm from here by dragging up the section on the bottom of the map. The map also has a heat-map feature which shows areas where break ins have occurred from other Altor users.



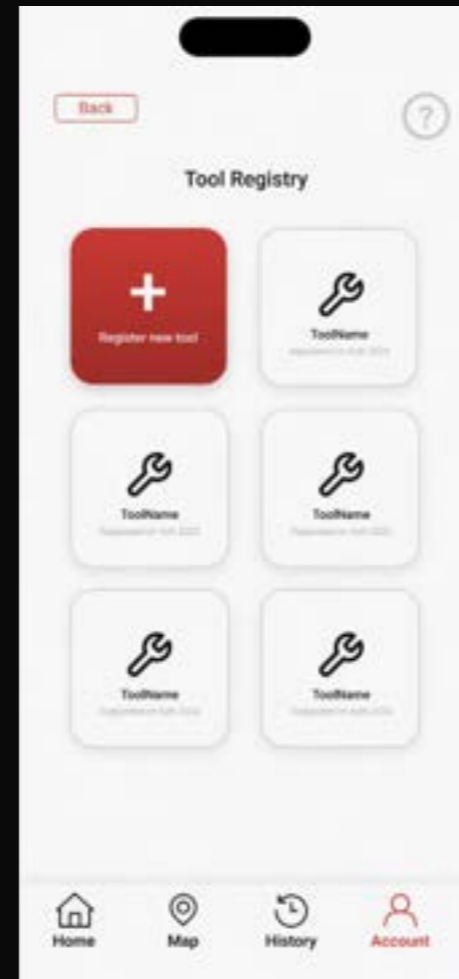


FINAL DESIGN SOLUTION

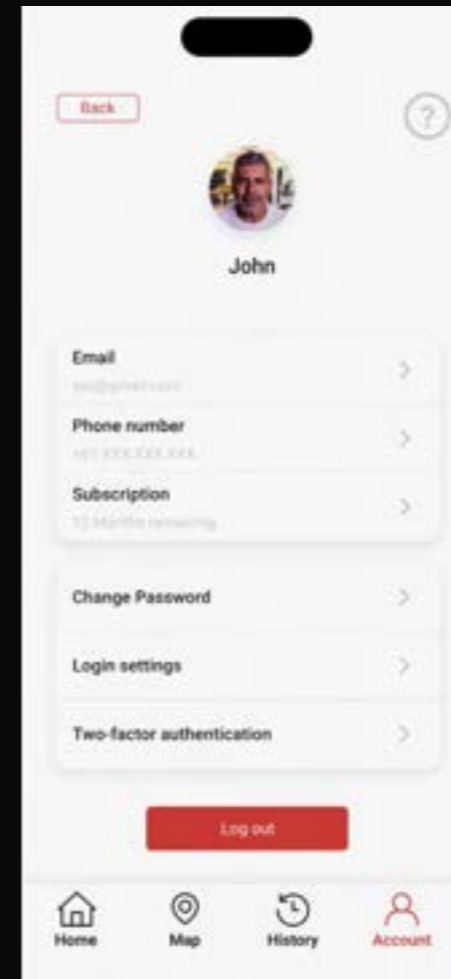
Account Page



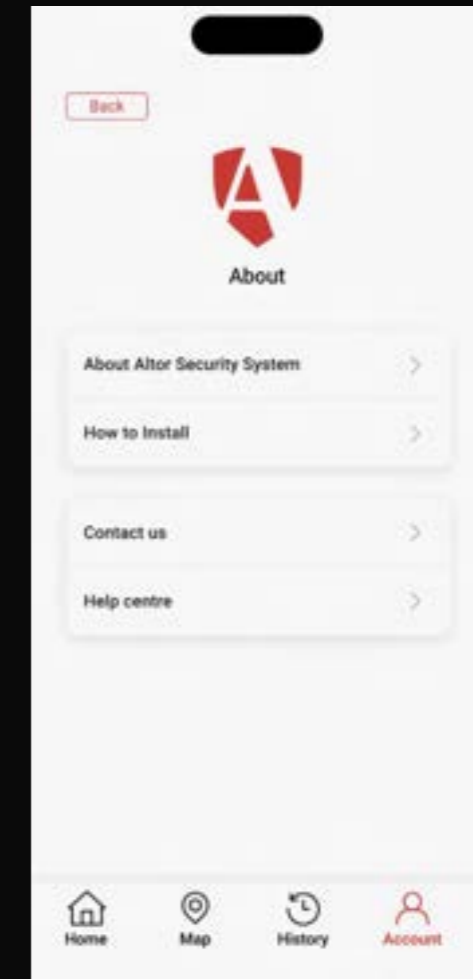
Tool Registry



Profile Page



About Page



The account page has all the other features that are less likely to be used often by users.

The tool registry feature is where users can input details about the tools they have so that in the case of a break in they have details on any of their missing tools.

The profile page allows the user to change any details about their account. It also includes the status on users current subscription. Tapping on it will lead to them to Altor's website to change anything regarding payment.

A simple about page with information about how to install the device and ways to contact Altor.

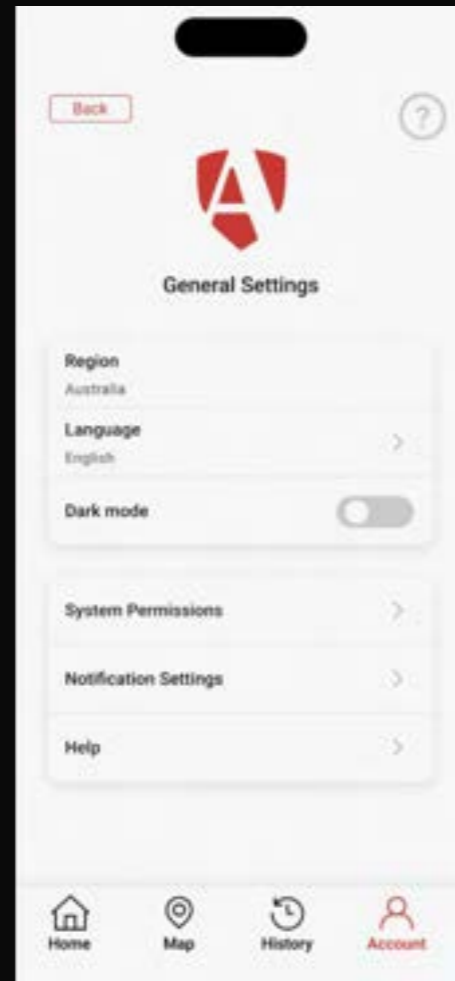




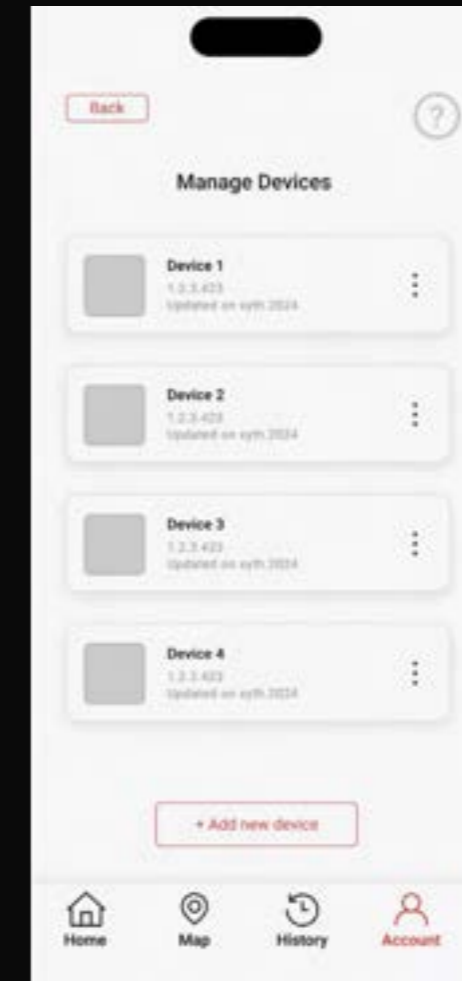
FINAL DESIGN SOLUTION

Settings

General



General settings with regards to the app itself. Here users can access the dark mode feature.



Here users can manage their devices including removing devices, edit the name or see details about the firmware or model of the device.



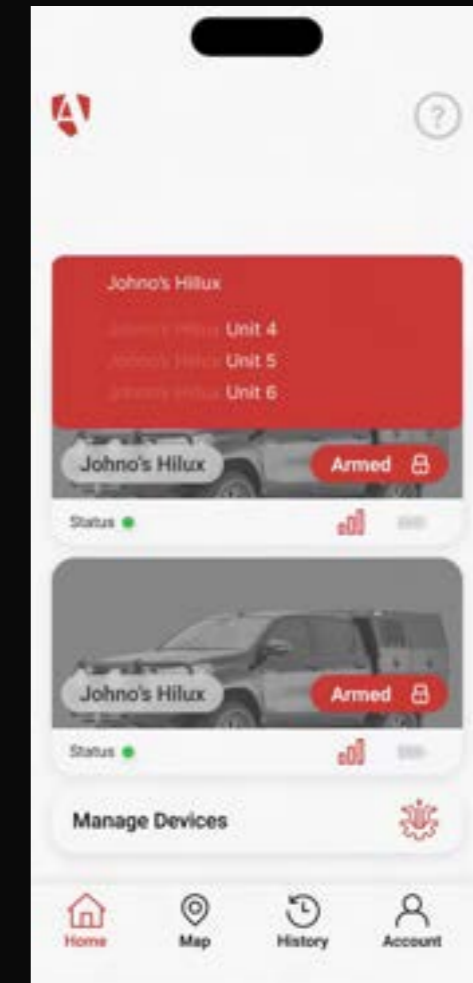
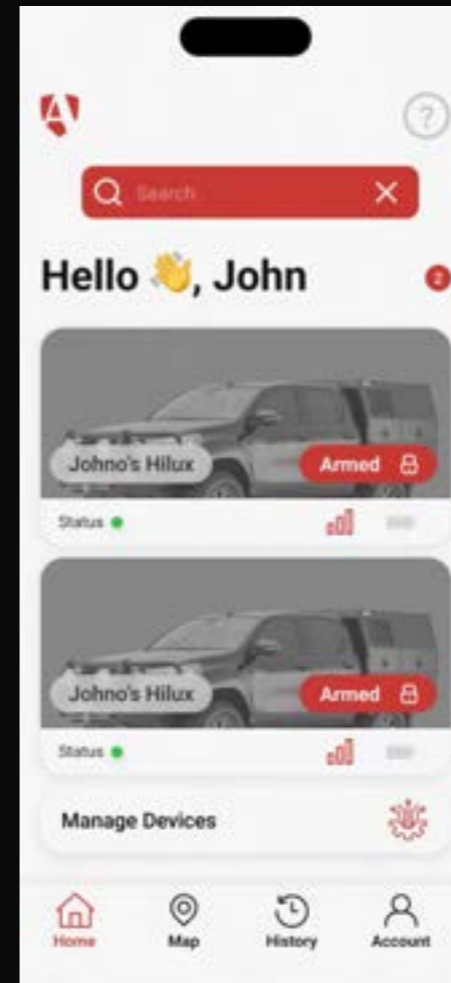


EXTRA CONSIDERATIONS



EXTRA CONSIDERATIONS

Extra Considerations - Multiple Devices



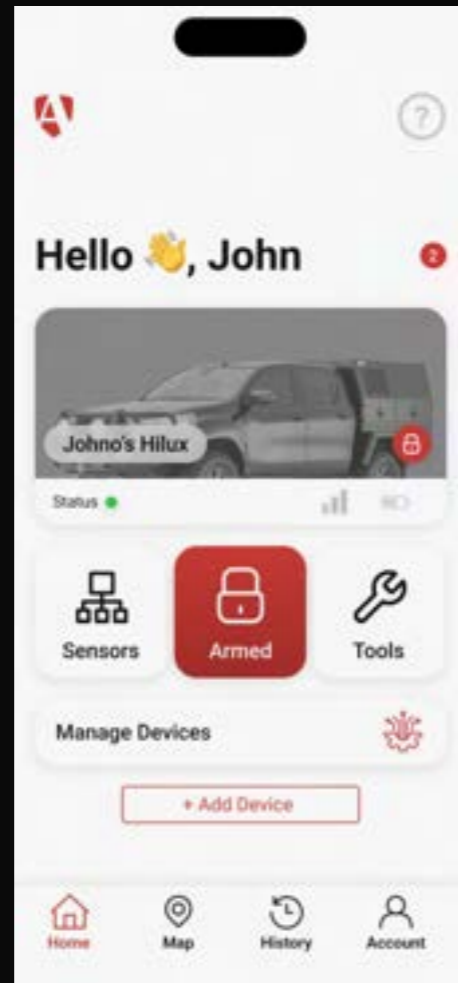
As part of an extra consideration we also designed what the home page would look like when there multiple devices registered to a user's account. The widgets will stack on top of each other and there is also a search feature for the user so that they can find a specific device much more quickly.



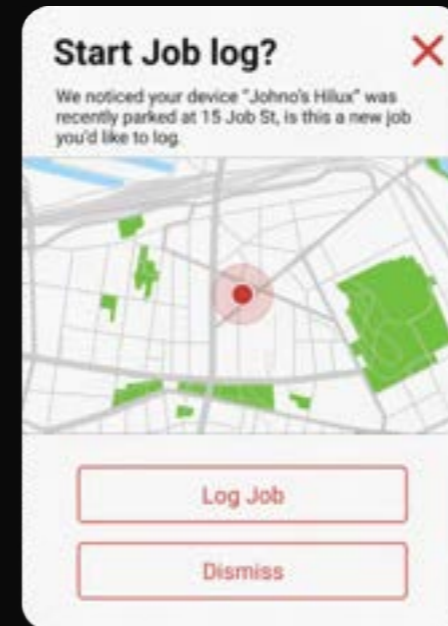


EXTRA CONSIDERATIONS

Extra Considerations - Notifications Feature



Another extra consideration we designed for was the notifications feature. In this feature we implemented how a user could respond to potential false alarms and how they could log the time of their jobs.



Users can log the time they start their job once the system has detected that the vehicle has stopped. After finishing a job the user can come back to this notification again to log that they finished the job. Ideally, it would then be recorded in the history page. There would be a separate preset filter for the job logs in history but as it was not part of the scope, it has not been designed yet.

Users will also receive recent alarm notifications as well. From here users can determine whether it was an actual alarm (dismiss) or if it was a false alarm. This would help prevent any clouding of the heat-map feature from any false alarms.





EXTRA CONSIDERATIONS

Extra Considerations - Apple Watch



Another extra consideration we designed for was the notifications feature for apple watches. This concept was structured around further reducing the users time to respond.





CONCLUSION

Collating all of our research, our key findings indicated that our target audience placed a considerable amount of importance on having quick access to specific features on the app. This was primarily referred towards the arm/disarm button. We were able to translate this to our designs by carefully placing the arm/disarm button in an optimal position where the thumb placement would be comfortable for the user. Our key findings also suggested that minimalism and hierarchy of elements was important for the design to be successful. In order to do this, the design was steered towards a minimalist aesthetic to reduce visual clutter. Importance was also placed on the functionality of the app. This was especially evident in the placement of buttons and features the user can quickly access on the home page. Furthermore our findings also lead us to design the heat-map feature as tradies would often find themselves parking a considerable distance away from their job site. The combination of all our design decisions have contributed to the problem Altor wishes to tackle; the rampant amount of tools being stolen from tradies.

Overall the project has been completed successfully. We were able to design all the features required within the scope. However, there are opportunities for the project to

be further developed. The job log feature along with false alarm feature could be further expanded and fully fleshed out. Currently these two have only been developed as a proof of concept. There is also room for improvement for what the app would look like when there are multiple devices registered within one account. The current version of the app shows what it could potentially look like, but it's not optimal for the design direction the rest of the app has. This feature needs to be further developed so that the app can retain its minimal aesthetic and fast user interactions.





APPENDIX A: SCOPING DOCUMENT

Literature review 1 - Tool Theft

"According to Crime Statistics Agency, over \$30M worth of power tools and hand tools were stolen in 2023" (RACV, 2024, para. 1) from vehicles and properties. Generally speaking tools have become an easy-target item for thieves as they are easy to steal

and easy to sell, but RACV released an article earlier this year outlining key ways in which tradies can take precautions to protect their equipment.

"Whether you keep your tools in your ute, in your garage or at your job-site, it's vital to lock your tools up." (RACV, 2024, para. 5). RACV claims that a key aspect to protecting tools is to ensure they are stored in a secure location. As per their article RACV advises

tradies to store tools in a "heavy-duty toolbox with a strong padlock." (RACV, 2024, para. 7).

Another way in which tradies can secure their tools is by marking them with bright unattractive markings, this 'devalues' the tool making it harder to sell, and less attractive to thieves (RACV, 2024, para. 12).

Documenting tool serial numbers and identifiers is an easy way to ensure that if your tools are stolen that they might be recovered.

The damage to productivity and profit is felt across the entire construction

industry, with small firms and large firms both being affected in different ways. (Berg & Hinze, 2005). Where theft does more financial damage to larger firms, it does more damage in terms of meeting deadlines to smaller firms (Berg & Hinze, 2005).

This data is crucial to our assignment as not only does it provide context into the current tool theft situation present throughout Victoria, but it also allows us to gain a deeper understanding into our client's motivations.

This data will aid us in making design decisions that are both informed and contextually aware.

Literature review 2 - Home Security

With the rapid advancement of technology and the increasing desire to safeguard personal and professional assets, the security landscape has evolved significantly. The adoption of sophisticated home security systems has surged, driven by major smart home companies like Google and Ring, which have integrated cutting-edge security features into their technological ecosystems. This shift not only enhances residential safety but also sets a precedent for innovative approaches in protecting assets in other vulnerable environments, such as tradesmen's vehicles and job sites.

As modern home security systems become more advanced, they highlight essential strategies for preventing unauthorized access, such as using integrated alarm systems, remote monitoring, and real-time alerts. For



APPENDIX A: SCOPING DOCUMENT

example, research from England illustrates a clear impact: homes with window locks increased from “a little less than 50% of all households in 1992 to a peak of 87% in 2009/10,” contributing to a significant reduction in burglary risk (Tseloni et al., 2017). Similarly, burglar alarm adoption nearly tripled over the same period, demonstrating how simple, visible deterrents are crucial in dissuading would-be intruders.

While this study specifically addresses home security, the principles extend to the broader use of smart technology in protecting assets. Vehicles and work sites, much like homes, benefit from smart alarms, GPS tracking, and connected devices that provide instant notifications to users. These similarities highlight a shared reliance on real-time information and preventative measures, where technology serves as a proactive defence against theft.

The expansion of Australia’s private security industry, which now “outnumbers police by more than two-to-one” (Prenzler et al., 2009), further emphasizes the widespread adoption of these preventative technologies. This growth signifies a broader societal shift toward prioritizing security and leveraging smart technology for protection. As a result, the approach of developing security solutions that integrate seamlessly with existing ecosystems becomes increasingly relevant.

By understanding the advancements in home security and their technological underpinnings, we can make design decisions that are contextually informed and aligned with market trends. Altor’s focus on

innovative smart security devices aims to mirror the success seen in residential applications, providing tradesmen with enhanced protection and peace of mind, through integrated systems.

Accessibility Needs

Incorporating accessibility into our prototype is key to creating a user-centered experience, ensuring that people of all abilities can interact with our product seamlessly. By focusing on accessibility from the start, we enhance overall usability and avoid costly redesigns later on.

High Contrast: High contrasting colours will help make the app more visible for users. Will also help users with low vision and blindness. Especially important for our audience as they will be working outdoors most of the time. (Yan.S, 2019)

Text: Must be in adequate format, size and colour. Provide text alternatives for users with impairments. Text can be resized without assistive technology up to 200 percent in a way that does not require the user to scroll horizontally to read a line of text on a full-screen window. (Yan.S, 2019)

UI Elements: These elements include icons, buttons and images. All of these elements should be clearly labelled, coloured and positioned on screen. As a result, it should help users to navigate around the app, find content, perceive it, and determine where they are in the app. (Ballantyne. M, 2018)

Recognition rather than recall: Adequate amount of information provided



APPENDIX A: SCOPING DOCUMENT

to users so that they can complete any task-at-hand on the same screen. Layout should also be consistent throughout the whole app. (Ballantyne. M, 2018)

Spacing: The amount of space between elements should have enough space between them to improve clarity. (Yan.S, 2019)

Efficiency and Flexibility: Minimise the amount actions the user has to take to complete a task and make sure information can be accessed through multiple ways. (Ballantyne. M, 2018)

System Visibility: The way the application appears and operates is familiar and predictable to users. (Ballantyne. M, 2018)

Error Prevention: Implement methods that help users avoid mistakes when they make their own inputs. (Ballantyne. M, 2018)

Visual Indicators: Provide visual cues and notification for security breaches. Can also be communicated through vibration and sound. No matter the method the user needs to notice. (Ballantyne. M, 2018)

Offline Functionality: The app should be able to operate when the user is in environment with poor or inconsistent connectivity. (Ballantyne. M, 2018)

Emergency Accessibility: In the case of an emergency users should be able to quickly access security features. Also should be able to quickly access the location tracking screen. (Ballantyne. M, 2018)

Large Touch Targets: Design buttons and interactive elements to be large and easily 'tappable', reducing the precision required for users. (Ballantyne.

M, 2018)

Case Study: Eufy Security

Eufy Security is also in the security industry. Their products are mostly for home security, however, they still operate in a similar way to Altor in the sense where they have an app to accompany the products as well.

Eufy security is a brand under Anker Innovations, which was founded in California, 2011. They have a security app named "eufy Security", the purpose of this app is to manage the security products installed in the homes of users. They will be able to receive alerts and look through he installed cameras.

The app created was well made and easy-to-use.

The design is intuitive and concise, reducing any confusion users could have when using the app. This

is accompanied with a tutorial on the app to induct new users or provide answers for existing users who have questions. The app layout, however, seems to

be inconsistent between the tablet and mobile phone versions. This makes things uncertain for the user where there could be less features available for users on tablets. The app also has an overload of information on the events page. Each panel has too much information which could be condensed.

The response from users are mixed. Users who like the app praise how easy it is to use the app and the unique AI recognition features. While users who didn't like the app mostly fault the software sides of things where the recording start too late after detecting movement or long loading and start up times.



APPENDIX A: SCOPING DOCUMENT

The most inspiring design aspect of the app is the Home page layout. It is clean and easy to understand. It offers options that equivalent to quick actions and effectively uses panels to group and section each element.

Case Study: Homeassistant.io

HomeAssistant.io is an open-source home automation toolkit that works to organise smart-home technology into one central app. The application features a user-friendly, clean, and intuitive design that works to both 'tidy-up' and take control of the overly sophisticated smart-home scene.

The HomeAssistant.io project was created by the "Open Home Foundation." The Open Home Foundation are advocates for digital privacy and security. Three main components make up the technology behind HomeAssistant.io, the first would be their open-source software, the second component behind their project would be the app, the third and final component is a CPU unit built with a Raspberry Pi unit.

What works well about HomeAssistant.io is that it is both beginner friendly but also allows for more complex operations. Additionally, HomeAssistant.io displays key information in a way that is both simple (easy to understand) and informative. HomeAssistant.io also offers users a wide range of customisations for their products through the app. This can be achieved through the automations feature on the app. They can add conditions, triggers and actions for their devices to follow. Despite having many options for customisations, it is still easy-to-use mostly due to the simplistic and intuitive UI of the app.

One thing the app could improve on is the way they display information, especially for when it is something urgent. One example is when the

motion sensors detect movement. When this happens the display shown on the homepage just has the words "detected" in the motions sensors card. This could be improved if it was shown in an alternative brighter colour or having the words flash. The lack of hierarchy in the UI makes everything feel blended together and when there is something that needs the users immediate attention it gets lost and makes it harder for the user to find.

Users responses to the project were very positive, everyone seemed to enjoy the 'universal remote' nature, being able to access their devices from one central place seemed to be the major positive. However, some reviews and discussions surrounding HomeAssistant.io bring up a key complaint. This complaint is primarily caused by frequent updates that often effect the reliability and connectivity of devices.

The most inspiring part of the project was most definitely the design and layout of the app, the clean and informative design style can definitely be carried over to our capstone project.

Case Study: Bouncie

Bouncie is a GPS vehicle tracking app designed to enhance vehicle security and streamline fleet management. It features real-time vehicle location tracking, detailed trip history, driving insights, and customizable alerts for events like speeding, geo-fencing, and diagnostics. Known for its ease of use and real-time notifications, Bouncie is particularly relevant for applications like the Altor security app, where these features could help prevent tool theft among tradespeople.

The app excels in providing users with a comprehensive view of their



APPENDIX A: SCOPING DOCUMENT

vehicles' activities, including tracking driving behaviors such as speed, braking, and acceleration. This data helps promote safer driving and allows for better decision-making regarding vehicle maintenance and fuel efficiency. The Power Trips feature further enhances this by recording and analyzing each journey to optimize trip planning. Additionally, users can set up customizable alerts to stay informed about important events like speeding or maintenance needs, which adds an extra layer of security and efficiency to vehicle management.

Bouncie's intuitive interface and affordable pricing make it accessible to both individuals and small businesses, offering a robust tool for enhancing vehicle safety, security, and efficiency.

However, there are areas where Bouncie could improve. Expanding its integration with other smart home and business systems would significantly boost its utility for users managing multiple aspects of their operations. Offering more advanced analytics and reporting tools would provide deeper insights for those looking to optimize their vehicle usage further. Finally, enhancing customer support by adding options like live chat or a more detailed help center would improve the user experience, particularly for those less familiar with technology. These improvements could help Bouncie maintain its competitive edge and continue meeting the evolving needs of its users.

Case Study: Dream Security

This case study was chosen for its advanced and comprehensive security solution specifically designed for vehicles, aligning closely with the objective of enhancing security for the tools and vehicles of traditional industry professionals.

Developed by Dream Security, a Ukrainian company, the project focuses on delivering cutting-edge security systems built to European technology standards.

The system's strengths include its ability to automatically detect break-in attempts, vehicle theft, and unauthorized towing, combined with immediate remote engine lock and the rapid deployment of an emergency response team. These features provide robust, real-time protection.

However, the system's effectiveness may be limited by its dependency on GSM/LTE network coverage, potentially reducing reliability in areas with poor connectivity.

User feedback has been largely positive, with many appreciating the round-the-clock protection and swift response to security breaches. Some concerns were raised regarding the system's reliability in low-signal areas.

The technology behind the system utilizes a satellite-based platform in conjunction with GSM/LTE networks for communication, enabling real-time monitoring and remote control of vehicle security features.

A particularly inspiring aspect of this project is its integration of automatic threat detection and immediate response capabilities. This design ensures protection without requiring constant user monitoring, making it a strong model for developing a user-friendly, highly effective security solution for traditional industry professionals.

Case Study: Steves Car Alarms

Steves Car Alarms is a car security company that offers a wide variety of security applications for all kinds of mobile devices. This company was



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chosen for a case study due to its similarity with Altor in terms of the tradie security applications they offer.

Stevens Car Alarms offers a tradie package that includes features such as remote keys, sensors and sirens aligning their product in a similar space to Altor. They even offer a third party GPS tracking application called Wialon, that can be used to locate any vehicle fitted with the system. The Wialon application takes design inspirations from Google applications, wearing a light blue and white colour scheme and similar Google font, and elements such as buttons.

The layout is very function and information first and design second, possessing large amounts of text and device information very close together creating a very overwhelming visual layout. Users who are dissatisfied with the service reported issues with pairing, notifications and GPS errors across the Google Playstore. Apple users reported a much better experience with users appreciating the level of information presented to them. Across both platforms Wialon has amassed a 4.6-4.7 review score average, and considering how much users valued the amount of information in the review comments it would be best for us to take that into consideration when designing Altor's application, whilst improving on it significantly.

Case Study: Trak'n Go

Trak'N Go is an Australian complete real-time GPS tracking system catering to both private vehicles with assets and fleet management. They provide a wide range of features, including live GPS tracking, vehicle status alerts, reporting and journey replay, temperature monitoring, remote immobilisation or locking and geofencing.

However, the system only operates on a web app designed mainly for desktops. Users need to open it from a browser to use the service which is only available within Telstra's network. Compared to native app, web apps cannot access the device's native features. Dependency on browsers might result in inconsistency in functionality and user experience such as buttons and menu bar access. This can be inconvenient and problematic, especially for tradies who mostly work outdoors and only have their mobile phones in hand, considering some situations might require quick responses. Native apps also offer faster, more responsive and interactive experience. On the other hand, web apps are relatively simpler, cheaper and faster to develop, hence lower cost. Users don't need to install web apps or update regularly to maintain optimal performance.

Despite not running on the same platform, Trak'N Go shows some takeaways that can be considered and applied while designing Altor app:

Trak'N Go provides a series of demonstration videos giving detailed walkthroughs of the main features and functions.

The app basically operates using Google Maps and employs Google design conventions and style, making its interface familiar and friendly which saves new users some time and effort navigating and getting used to it. Microcopy meets the criteria of being clear, concise, action-oriented and empathetic. Feedback messages are also provided. There are even clues on the login screen to remind users of the right input format. Users have a lot of control and customisation capabilities within the app.

Straightforward, modern and minimal design (colour palette, typeface and layout) is applied consistently across the app's elements. Icons and colour are used as status indicators quite efficiently, except for some cases such as the action control menu, where the same colour used on two buttons



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might be confusing. Upon hovering over buttons, tooltips showing the button's function appear, giving users extra guides and preventing errors. However, this is a desktop privilege that has a very limited application on mobile.



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