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# **DELIVERABLE F**

## **PROJECT PLAN AND COST ESTIMATE**

Team DISMISS

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# Introduction

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In the previous deliverable, we began the prototyping stage by planning all of the upcoming tasks for the remainder of the semester, creating an overall budget for all of the prototypes and design day, and, finally, compiling a list of equipment for each of those. To continue this stage, we'll build our first prototype, analyze its components, and come up with a prototype test plan. Finally, we'll gather feedback and input from possible users.

# 1- Prototype

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Editor: [Prototype 1 Editor - GNG1103 – Figma](#)

Prototype: [Prototype 1 - Figma](#)

## **Prototype Test Plan for Omega Smart Assistance Glasses App**

### **Objective:**

Evaluate the usability, functionality, and user satisfaction of the Omega smart glasses app interface. The test will focus on user navigation, task completion, feature comprehension, and the overall experience within each screen and section.

## 2- Analysis of critical components

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### **Main page**

With its simple and intuitive design, the main page allows users to easily explore the whole app. The users can access the different app pages by clicking the buttons that are clearly identified on the main page. Users can also click on the help or the contact us button to navigate to the help page.

### **General page**

The general page is designed with a simple and well-structured layout to allow users to manage a variety of features, including different permissions (e.g. locations, microphone, speakers, camera) and the OMEGA Smart Glasses Heads-Up Display. Toggle switches in the permissions sections allow the user to easily turn on or off different features. In the Heads-Up Display section, the user can also easily manage its content. Additionally, the user is also able to return to the main page with the arrow at the upper left corner.

### **AI page**

With its simple and minimalist design, the AI page gives users control over some of the OMEGA Smart Glasses' most important features. Key features, such as enabling AI, face recognition and object recognition, are prominently placed, which allows a quick and easy access for important adjustments. The toggle switch on those features allows users to easily see which features are turned on or off. Features like saved voices and voice commands are clearly divided into sections to create a well organized page, helping users manage it in a quick way. Additionally, the user is able to personalize their experience by modifying those features. The user is also able to go back to the main page with the arrow at the upper left corner.

### **Saved page**

The saved app page is designed to be simple and easy to use, making it straightforward for the users to manage saved content. It's divided into three clear sections: people, photos and videos, with a placeholder where each saved item would be. The people section would allow users to see the profile picture and the name of the saved person. The videos section provides video previews and the photos section provides photos thumbnails. In both the videos and photos section, the arrow at the right allows the users to scroll to additional saved videos or photos. The user is also able to return to the main page with the arrow at the upper left corner.

### **Devices page**

The devices app page is well-structured and intuitive, making it simple for users to manage their Smart Glasses Bluetooth and Wi-Fi connections. The page is divided into two

sections: Bluetooth and Wi-Fi, with a toggle switch in both to allow the user to easily turn each feature on and off. In the first section, Bluetooth, users can see a list of their current devices and their status, connected or disconnected. Similarly, the Wi-Fi section provides users with the name of the current Wi-Fi networks, and its status, connected or disconnected. The user is also able to go back to the main page with the arrow at the upper left corner.

## **Help page**

With two clear sections, commonly asked questions and contact us, the help page is easy for users to navigate. In the first section, frequently asked questions, users can see placeholders for frequently asked questions and their corresponding answers. In the second section, users can clearly see two methods to contact the app developers, by phone or email. The user is also able to return to the main page with the arrow at the upper left corner.

## 3- Prototyping test plan

# Change of Prototype from deliverable E

### Prototype 1

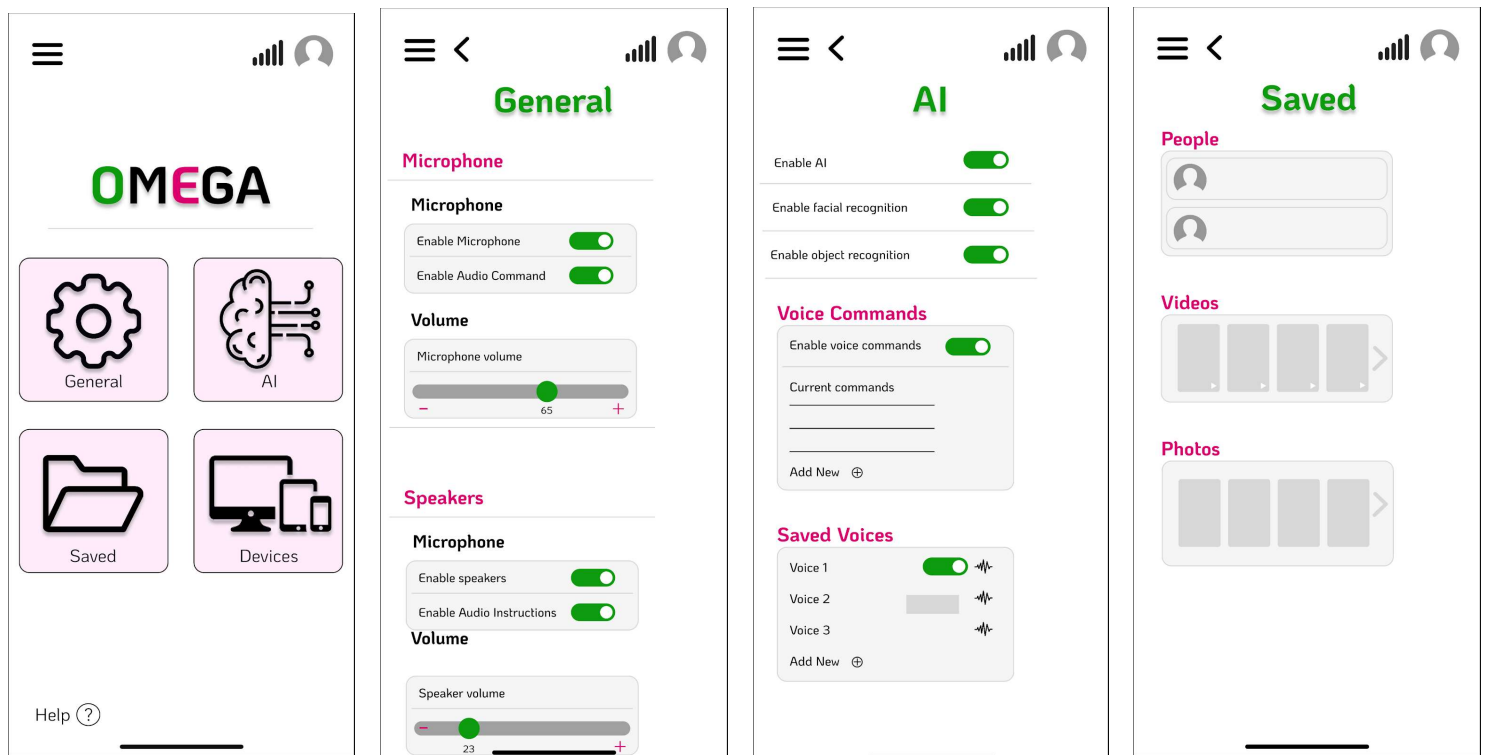
We have decided to recreate our prototype into a simulation prototype of our system's navigation. In order to do this, we have created a slide tree using the software figma, to show all the various interfaces for all the concepts such as AI, HUD, etc. This is a focused app navigation system prototype that demonstrates how smoothly it will be for users to navigate our app.

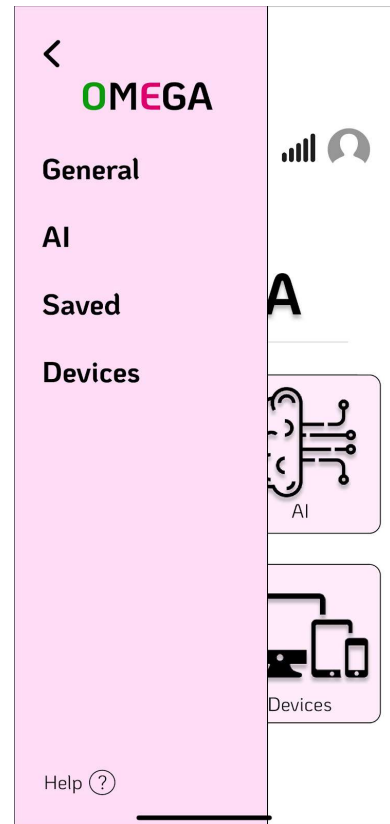
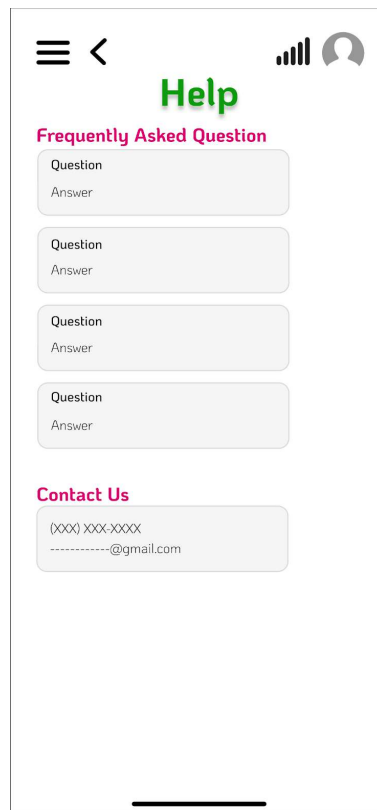
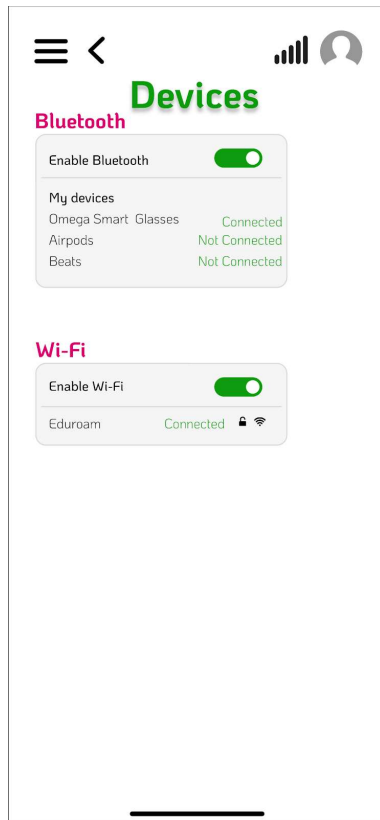
### Test Plan 1

Our initial test plan was to test the usability flow of our app system. This will be accomplished by assigning different users specific navigational tasks, and timing how quickly users can complete that objective. What we are looking for is to see if some app concepts are too difficult for users to navigate or comprehend. Having longer times to find that setting will confirm this outcome.

### Test Plan 2

Our second test plan will require having multiple different people evaluate and rate our concepts, designs and thought processes. Getting constructive feedback will help improve our overall app design. We can do this by interviewing various groups, or even groups working on similar projects. This feedback will be essential in refinding our app structure.







## 4- Test results

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### Test Plan 1 Results

Names	Problem	Time	Relation	Feedback
Monica	Navigate from Home menu to Help > Emergency	8s	<10s	“Help logo makes it easy to navigate into the help section, but would need to improve emergency concept”
Maris	Navigate from AI Menu into Saved>Profile> Video section	11s	>10s	“Easy to navigate from mainstream AI menu to saved section, had harder time to go to profiles video section, would like to make profile icon bigger”
Kyle	Navigate from General into +Obstacle detection> setting to change output options	9s	>10s	“Was easy to navigate main settings , but the buttons were too much to read for options”

### Test plan 2 results

Names	Feedback / Opinions
Monica	<b>PROS:</b> The overall app structure is well done. You can clearly see all of the different sections, and how to navigate to those

	<p>sections.</p> <p><b>CONS:</b> They are many features that I felt were missing from the app. For example, there is no way to customize the app.</p>
<b>Maris</b>	<p><b>PROS:</b> The layout of the app is very simple and clean. It's very easy to navigate</p> <p><b>CONS:</b> No cons</p>
<b>Kyle</b>	<p><b>PROS:</b> Overall, the app was easy to navigate, with clear buttons for each feature. I also liked how each feature could be turned on or off easily.</p> <p><b>CONS:</b> The app was lacking a bit of context. For example, I sometimes felt as if some features could have been more clearly labeled.</p>

## Feedback results from the second client meeting

Based on our client meeting, we evaluated our first prototype of the app, and all features, and have concluded that too many features and ideas are created, meaning that this has over complicated our glasses. We have decided that we should stick to the basic function and the main purpose of the glasses, which is to have features that **ONLY** aids visually impaired users. Therefore, functions such as AI translator, or ability to save people or location is unnecessary. AI translators over complicate our glasses, as it takes more code and data to function, meaning it may affect battery life. As well, it is a bit repetitive in the sense that we have our phone as a translator. Those criticisms from our clients showed us that we don't have to add many features, and to stick to the basic needs.

## 5- Updated target specification, detailed design and bill of materials

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PROTOTYPE 1 - Bill of Materials					
Item #	Item Name	Quantity	Purpose and Description	Price	Amount
1	Bristal Board	1	Testing the User Experience, to understand the functionality of the app, we are going to create a paper or bristal board user interface. So each button will navigate to a different paper copy of a concept for example audio. This will help us brain map the navigation tree of our app, then we can apply it to software.( we can use a bristal board and use arrows to different concepts, to show the app navigation)	\$4.00	\$4.00
2	Colored Markers	1	To add color, to show the color palette concepts of our app	\$3.00	\$3.00
3	Figma	1	We can also use Figma, a software platform to create pictures for different app concepts. This will show the different app pages our app has to offer, and a real time navigation throughout our smartglass platform	\$0.00	\$0.00
Total product cost					\$7.00

PROTOTYPE 2 - Bill of Materials					
Item #	Item Name	Quantity	Purpose and Description	Price	Amount
1	Reserved API Calls	1	We may use API's that are outside the Shabodi sandbox, the higher quality API's will cost a certain amount of money each call. It will be in the cents range , for each call.	\$5.00	\$5.00
2	Phone Camera	1	We need a camera, to be the eyes for our software. We will connect our software to the camera, so the camera will be our input source for the software.	\$0.00	\$0.00
Total product cost					\$5.00

PROTOTYPE 3 - Bill of Materials					
Item #	Item Name	Quantity	Purpose and Description	Price	Amount
1	Figma	1	This software will help us create prototype images of outputs our software will give to the user based on the object recognized. We will create scenario based images for example if this object is recognized, our user will see this	\$0.00	\$0.00
2	Paper	1	We may also use , paper to create a test case scenarios of what our software will signal	\$3.00	\$3.00
Total product cost					\$3.00

DESIGN DAY- Bill of Materials					
Item #	Item Name	Quantity	Purpose and Description	Price	Amount
1	Tri-Fold	2	To present our project	\$3.00	\$6.00
2	VR headset	1	To run our code and visualize the output	0.00\$	\$0.00
(3)	Glasses	1	A prop to display during design day to give an idea of what the HUD would look and feel like.	\$4.00	\$4.00
Total product cost					\$10.00

BUDGET 1	
PROT 1	\$7.00
PROT 2	\$5.00
PROT 3	\$3.00
DDay	\$10.00
Total	\$25.00

## 6- Prototype test plan for next prototype 2

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For the second prototype, we have decided to do a focused prototype to get an idea on how reliable they are. They will help us determine if we are ready for a comprehensive prototype with all subsystems. Any issues which may arise during the prototype testing will also allow us to make iterations, which will get us closer to the final product.

Since this is a software project, most of its aspects will rely on analytical methods, which is why the prototype will be analytical as well with inputs straight from the users. This will also help us prepare the software for an overall good performance.

In terms of fidelity, we want to make sure that the prototypes are close to what we are expecting, as this will be our final focused prototype and want to make sure that it can handle realistic scenarios.

Below is the test plan for the second prototype. Using this, we will be collecting data and making iterations as needed.

ID	Design specifications	Relation (=, <, >)	Value	Units	Verification method
1	User voice input reliability	=	Pass	Boolean	Testing different voices and keeping a note on how many times the voice assistant responds when called.
2	Application usability	>	80%	Percentage	Feedback from testers on how easy it is for them to use the website.
3	Face tracking reliability	>	1m	Meters	Tracking different faces from different

					distances away from the camera, and keeping track of the distance it cuts off.
4	Software crash test	=	Pass	Boolean	Putting heavy load on the app by calling multiple commands at once and noting the number of times it crashes

## 7- Conclusion

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Prototyping is one of the most important stages in the design thinking process. It helps us visualize what our completed and final prototype might look like. In deliverable E, we began this stage by examining some possible project risks, planning all of the upcoming tasks, establishing an overall budget, and creating a list of equipment. In this deliverable, we'll continue this stage. First, we created our very first prototype, a figma document. We also analyzed all of the critical components of each page of this prototype. We then developed a prototyping test plan for this prototype, and gathered feedback and comment from possible users. Finally, we developed a prototyping test plan for next week's deliverable. To complete this stage, we will, in the next deliverable complete prototype 2 and 3. This will allow us to make sure that our final product is ready to be used by real users.