**PROTOTYPE & 3 TASKS**

**Prototype**

<https://www.figma.com/file/Ans6q17YTjEtXCGFBfsjp0/STARFare-Technology-Security-Console-Tasks?node-id=0%3A1>

**Graphical user interface, website

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**Task 1: Red Alert**

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**Graphical user interface

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**Graphical user interface

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Text, letter

Description automatically generatedIn order to show how our interface can carry out various tasks, we selected three tasks to prototype. We created the prototypes on Figma(see attached Figma file) to showcase three different tasks: 1. Initiating Red Alert Mode, 2. Sending a message to another space vessel, and 3. Performing an exterior scan. All three of these tasks are good examples of functions which showcase the interface's abilities to carry out tasks that are both routine and of high importance.

For the first task, entering Red Alert is a task which occurs during crisis situations, so we thought it would be good to show how our system will work in situations where the stakes are high, and time is of the essence. First off, the ship would be in a green alert mode, one in which no warnings or security measures are in pace. At the first sign of a threat, the user, whether captain or security officer, would verbally command the interface to engage the Red Alert Mode with the command “Computer, engage Red Alert.” Once the computer hears this command, the computer console will switch from green to red and an alarm will begin to sound in the ship. The computer then initiates a series of automated procedures such as locking all exterior doors and initiating security scans of both the interior and exterior of the ship. The message screen will then show the ship's security status, as well as any incoming message from other crew members or external sources. This signals the ship's full entrance into Red Alert and the Computer will verbally ask the user what further actions they would like to take. The user can then either instruct the computer to take further security actions or stand down from Red Alert.

The second task is that of sending a message to another vessel in space. The first step is to verbally ask the computer, “ Computer, send a message to (name of intended vessel).” The interface will then confirm the message destination and the user will respond yes or no. The computer will then prompt the user to speak their message.

Text, letter

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Description automatically generatedAs the user recites their message, the computer will display the recorded message on the computer screen for the user to visually check as it is being recorded. After the message is recorded, the computer reads back the message to the user and confirms if the contents of the message are correct. The user will then confirm if the message contents are correct, verbally. The computer will then verbally ask the user to choose an encryption and priority level for the message. The user will then tell the computer what encryption level and priority they want to attach to the message and confirm its status. After the user gives confirmation, the message will be encrypted according to user preference by the computer and given a corresponding priority tag. The message is then compressed by the computer to increase broadcast range. Once the message is sent, a tone plays over the console speaker and the computer speaks a verbal confirmation of successful or unsuccessful message transmission.

The third task is that of performing an exterior scan. In order to initiate an exterior scan, the user will speak the command: “Computer, initiate exterior scan.”. The Computer will then verbally confirm it is initiating an exterior scan and the display screen will switch to its scanning mode. Computer asks for criteria from the user for the scan (distance, wavelength, etc.) and the user will specify what metrics they want the scan to include. The computer then begins to scan for anomalies (Bio signs, transmissions, etc.). During its active scanning, the computer will begin to store all collected data in various logs and begin to analyze it with several various subroutines. Once the scan is completed, a tone will play, and the computer verbally informs the user that the scan is complete. The results of the scan are displayed on the message screen, and anomalies are highlighted in bold. The computer will then verbally speak out anomalies of high importance and ask the user if they would like to perform further scans. The user will then either confirm they want to perform more scans and the steps will repeat, or they can ask the computer to end further scans.