



# Requirements Document

## Product

Talkbox is a device used to help people who are unable to speak. It contains a number of buttons that can be pressed and will play pre-recorded audio files. Talkbox consists of 2 parts, the main device and the configuration app. For this assignment, we will be creating a few apps that will simulate the actual device.

The main simulator app will simulate the actual Talkbox hardware. The number of buttons and their functionality is configurable using the second app, the Talkbox Configuration app. The configuration app will allow the user to choose what words or phrases will be played when the corresponding button is clicked. The number of recorded audio files to be displayed on the Talkbox simulation will also be configurable through the configuration app.

## System Requirements

The simulator app simulates the actual Talkbox device. It is able to play different audio clips when each button is pressed. The audio to be played can be easily identified by the word or phrase on the button being pressed. When the simulation app is run, the user can choose which of the already saved button and text configurations to open. Once the desired file has been selected, the user can then click the various buttons to play audio that corresponds to the buttons text.

The configuration app allows the user to change the number of buttons that will appear in the simulation app. Users are able to change the text on each button, which will then change what will be played in the simulation app. For ease, there is the option to save the current button layout and text so that the current configuration can be used in the future. The most important part of this app is that the current button and text layout can be tested on the simulator app before actually being used on the Talkbox device.

The configuration app also allows users to set up multiple pages in one configuration. As an example, we have a predefined "animals" pages for the user. Hopefully this encourages the user to add more pages, each with different themes to their configuration. Having the ability to add new pages allows the user to organize their buttons better. For example, the name of the configuration could be animal, and each page can be for a different animal group (ie. mammals, birds, fish, reptiles, and amphibians).

In order to have full functionality of this app you must have openjdk 11 installed, have a local copy of JavaFX SDK version 11.0.2, which can be download from <https://gluonhq.com/products/javafx/>, and also a copy of freetts version 1.2.2 which can be downloaded from [central.maven.org/maven2/net/sf/sociaalfreetts/1.2.2/freetts-1.2.2.jar](https://central.maven.org/maven2/net/sf/sociaalfreetts/1.2.2/freetts-1.2.2.jar). The executable jars require these libraries to properly load the app.

## Interface Requirements

The interface for both apps is aesthetically appealing and simple to use. The GUI is fairly self-explanatory. There are a few buttons indicating their function, which should be enough to explain how the apps work, and the more complex buttons give a few instructions when clicked, but ultimately, both apps are easy to use. The few instructions to use the apps can be found in the User Manual.

The simulator app simply displays the buttons that have been configured in the configuration app, and when pressed, play the audio clip that was configured. This app allows the users to test if they like the audio being played, or the order of the buttons being displayed and will give them an idea of whether or not they like the current state of the buttons and audio.

In the configuration app, users can use some of the pre-recorded audio clips that are already on the device. The text on buttons can be changed so that the user can identify which button plays which audio file. The text on the buttons corresponds to the audio clip that will be played.