**TABLE OF CONTENTS**

1. **INTRODUCTION**

The purpose of this application is to virtually stimulate a TalkBox that will later be simulated on Raspberry Pie. The software in general will aid in communication for the users, who currently struggle with it due to the medical reasons. The overall layout is interactive and easy to use.

The software consists of two applications:

1. TalkBox Simulator
2. TalkBox Configuration

The configuration will provide the users with a GUI App environment and show different functionalities available.

The Simulator will provide the users with buttons (that they will have a freedom to create) that can be used to aid communication.

* 1. **Functionality**

The software provides the user with much more functionalities than a usual Sound Generating Device (SGD). Some of them are as follows:

* Choosing the number of buttons for your screen
* Making a profile
* Using Pre-recordings
* Record your personal audio/sound
* Adding recordings to the buttons
* Adding buttons to your profile
* Launching your profile, with named buttons

**3.0 System Requirements**

This software will operate on a desktop/laptop device. It will require a supporting Operating System (OS). Moreover, it will also require JRE 8 and higher versions. The basic use of the software will not require an internet connection, but accessing documentation might require a stable internet connection.

The hardware required will be a microphone to allow personal recordings. Also as this software is computer based and there is no hardware buttons the user will need a mouse to interact with the system.

**4.0 How to get started:**

**4.1 Download as a JAR**

1. Go to https://github.com/neharikapurieng/TalkBox

2. Click, download the JAR

3. Save it.

4. Go to saved location, right click and run it.

**4.2 Open in an IDE**

1. Go to https://github.com/neharikapurieng/TalkBox

2. Click, download the project.

3. Open an IDE of your choice, and open this project on it.

4. Run the project.

**5.0 Configuration App**

1. When you run the application. The configuration app will display.

**5.1 Create a button**

1. On the bottom left side, click the box that says “Enter number of buttons”. Then type the number of buttons you want and press enter. The inputted number of buttons will display on the screen.

Notice these buttons don’t have a name yet. Do not worry, it will very soon.

**5.2 Make a profile**

Now that you have your buttons, you need to make a profile. To do so, follow these steps.

1. On the top right corner, you will see a profile. Go to the box that says “Enter Profile Name”, in their write a profile name and pres enter.

**5.3 Record Audio**

On the right bottom corner, you will see a list of pre-recorded audios. In order to record your own audio, follow the following steps and you will see your audio in the list.

1. Write a name of the audio, in the box that says “Enter Filename”. By clicking on the box and entering the name.
2. Press Record, and say what you want to, then press stop.

Your audio will be now on the list.

**5.3 Adding recording to the button**

Now that you have the recording you need, or you see it already in the list of pre-recordings. It’s time to add the recording in the button.

1. Choose the recording you want to add and press “Add Sound”.
2. You will see a little triangle appear on the left of your Profile Name, click the triangle and you will see all the recordings you added.
3. Press Set Profile and you see the name of the recordings, on your button now.

**TalkBox User Guide**

TalkBox is a Text-to-Speech device that is used for those with speech impairments. With the TalkBox Configurator(TBC) App that configures the TalkBox Hardware to the liking of the client. The configurator allows the user to do a multitude of things to make it customizable. Download Talkbox from this link and open the TCA from your device or the simulator.

**Configurating Buttons**

Once the TBC opens up the user can add a specific number of buttons in the text field on the simulator/device.

**Adding Audio Source**

On the left panel of the TBC, the record button is pressed to record and stop to end the recording. Once that is finished, the user enters the filename in the above text field and the Add Sound Button is pressed to add it the folder of existing audio files on the right side of the panel.

**Setting/Removing Profile**

The TBC can organize the audio categorically in a directory system where audio files can be organized based on the category it falls under. For example, files that say “Hello” and “Good Morning” can be found under the Greetings branch.

**Serializing**

The TBC can serialize the buttons and audio files to allow user to configure their TalkBox hardware. This is done by choosing the number of buttons as well as the profile with the desired audio files. The user then clicks serialize and a tbc object is created.

