

Phone Capability Testing Application (Platform: Android)

User Guide

Introduction

This application provides a combination of functions to help the users understand the device capability in terms of:

- Sensor listing, its core information, and readings.
- Sound detection through graph plotting.
- Bluetooth beacon converts the device to a beacon that transmits the Bluetooth signal helping in reading the distance relay and power of the Bluetooth signal.
- Shake music player that be used as a custom music player that changes songs through shaking the device.

Compatibility

This user-friendly application is compatible with all android devices. Below is a condensed list of compatible devices.

- Android phones
- Android tablets

Installation Requirements

Minimum Requirements:

- Android 6.0
- At the least 73 MB of free space
- Bluetooth and Physical Sensor permissions

Recommended Requirements:

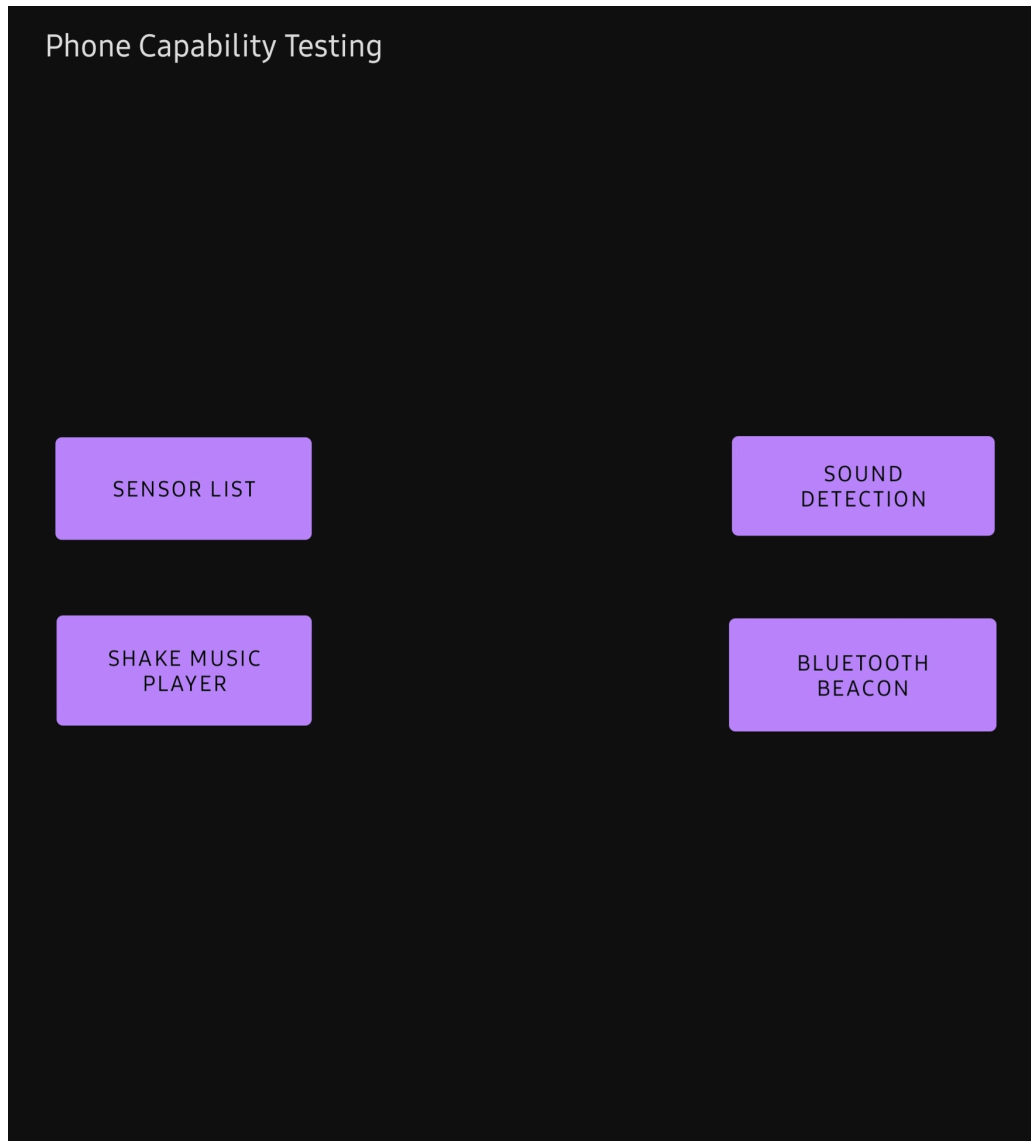
- Android 13

Help

Please contact me through prudhvi2911@gmail.com for any queries and support.

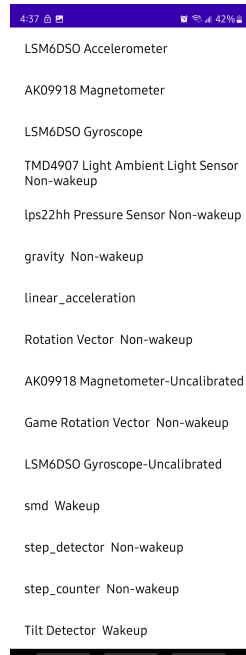
Homepage

From Homepage you can chose from either of the four functions to access the functionalities of the application per the selection.

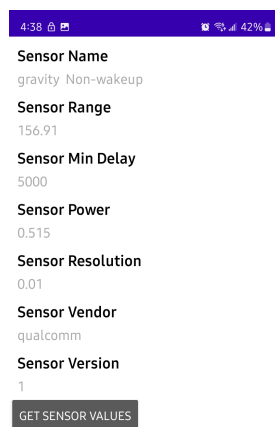


Sensor List

Once you select “Sensor List” from the homepage to display a list of sensors available on your device.



On selecting a sensor from the list, you will be navigated to a page displaying the information of the sensor selected.

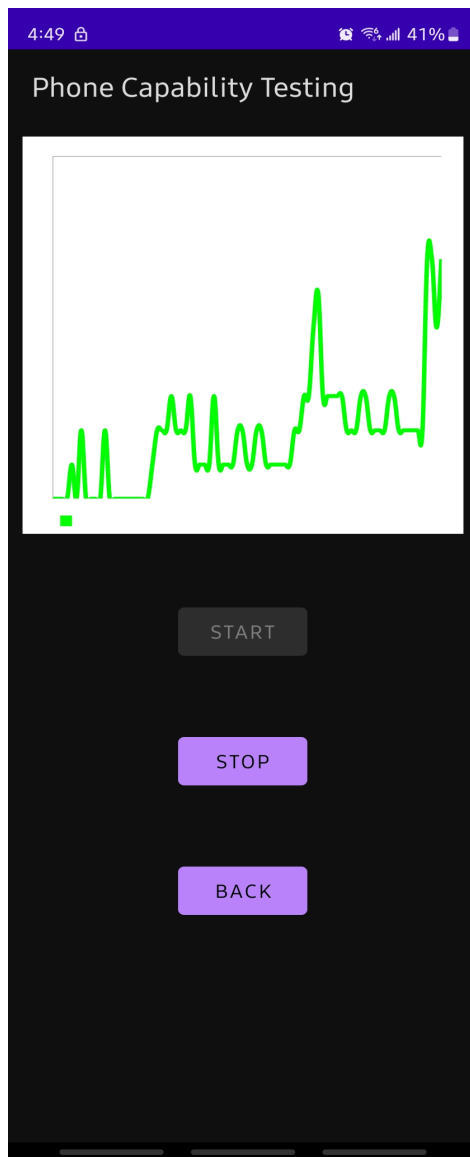


Now click “GET SENSOR VALUES” button to display the sensor readings.



Sound Detection

On selection of “Sound Detection” button on the homepage, you will be routed to the following page where you can hit the “START” button to start the record function of the device to start detecting the sound input. On the sound input is recognized the graph is then plotted based on the sound frequency. On hitting the “STOP” button the recording will stop and the graph plot will stop as well. You can use the “BACK” button to return to the home screen.



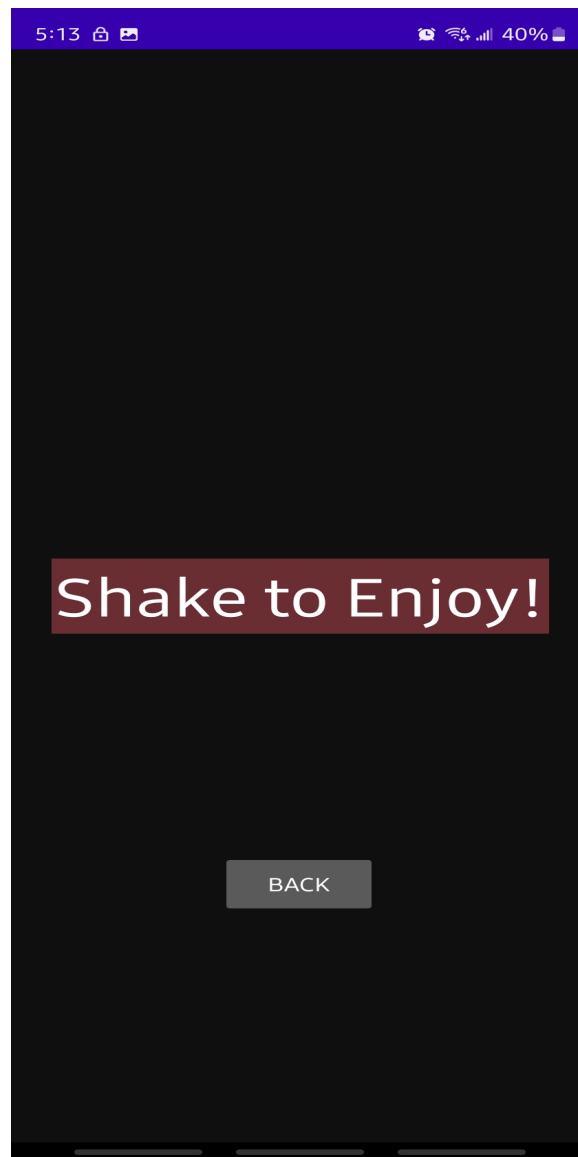
Bluetooth Beacon

On selection of “Sound Detection” button on the homepage, you will be routed to the following page where you can hit the Bluetooth rock on the center of the screen to convert your phone into a Bluetooth signal relaying beacon. Following which, on a supported app on a different device, can claim the signal and provide the information about Bluetooth signal strength.



Shake Music Player

On selection of “Shake Music Player” button on the homepage, you will be routed to the following page where you can simply shake the device to start playing the songs onboard the application. You can also shake the device once again to change the track. To exit, all you have to do is just press the back button.



Overall, the product is just in the first phases of design. More functionalities and enhanced changes shall be made in the future. Please follow <https://github.com/PrudhviSuryadevara/PhoneCapabilityTesting> for future changes and additions.

Thank you for using the application and I am always welcome for any suggestions in terms of improving the application. Please forward your suggestions or opinions to prudhvi2911@gmail.com.