



SMART WALKING FRAME

User Manual

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1.0 Introduction

This manual covers the guidelines of how to use the product.

1.1 Product description

Smart Walking Frame is a walking frame embedded with buttons and electronic components which can perform different functions. It comes along with a mobile application which can connect to the walking frame itself.

1.2 User description

Walking frame is a tool that offer support for people when they're walking around both outdoors and indoors. They provide stability and balance to those who are a little less steady on their feet. Therefore, this product is suitable for the target users which are amputees and elderly

1.3 Software Requirements

Product name	Smart Walking Frame
Size	46 MB
App permissions	<ul style="list-style-type: none">• Storage• Location• Nearby devices• SMS
Internet connection	Required
Operating System	Android 5.0 and above

2.0 Getting Started

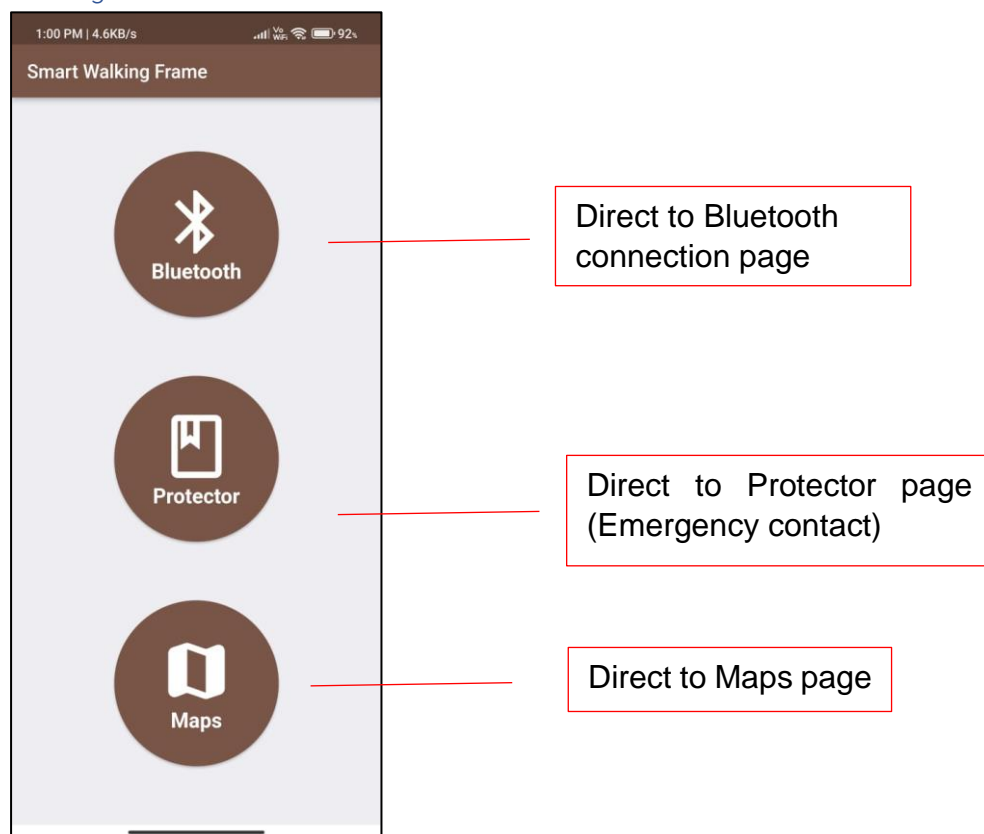
2.1 Software

2.1.1 Installation

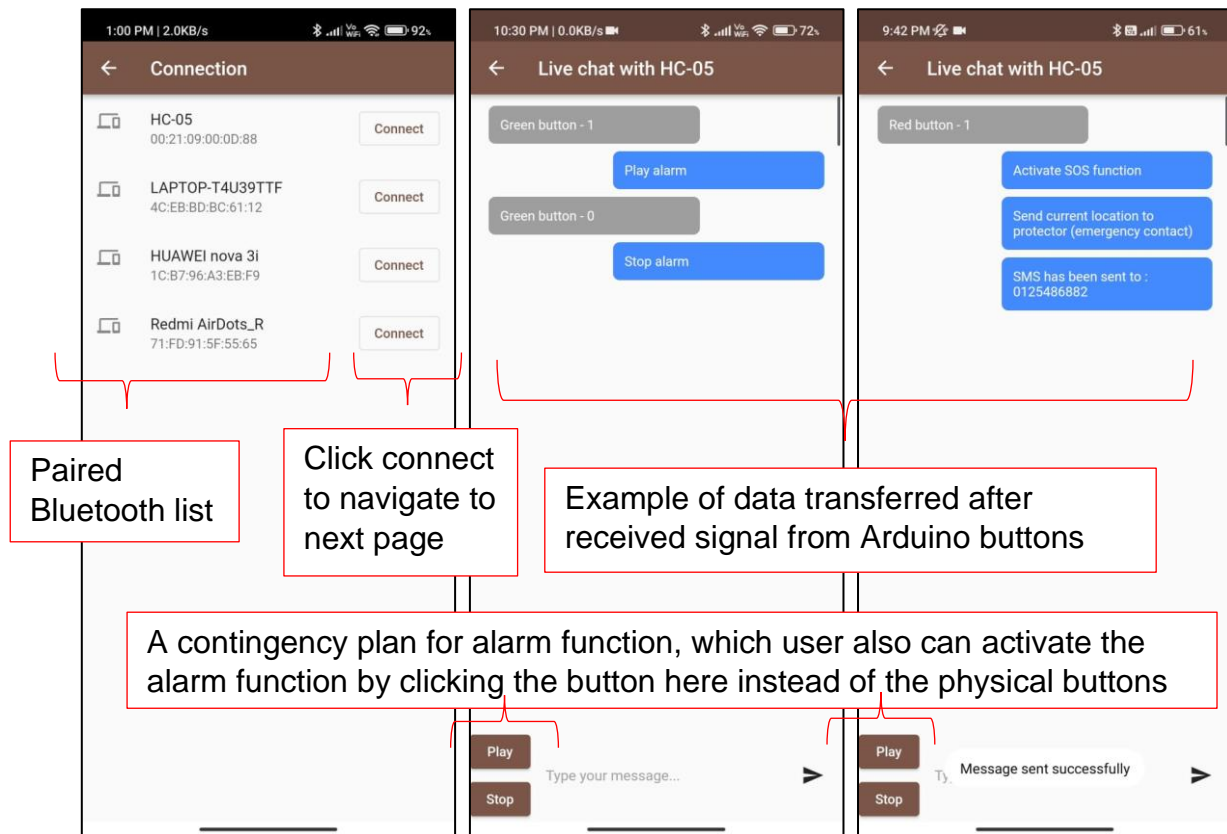
1. Download and install the Smart Walking Frame APK to your android device from the following link: https://drive.google.com/file/d/1L2cTiyWQ0ejO6pJb-udDN7ltCugA8TSK/view?usp=share_link
2. Click on **Install** after downloaded the apk
3. After the installation, Smart Walking Frame application is available to use on your android device.

2.1.2 User Interface

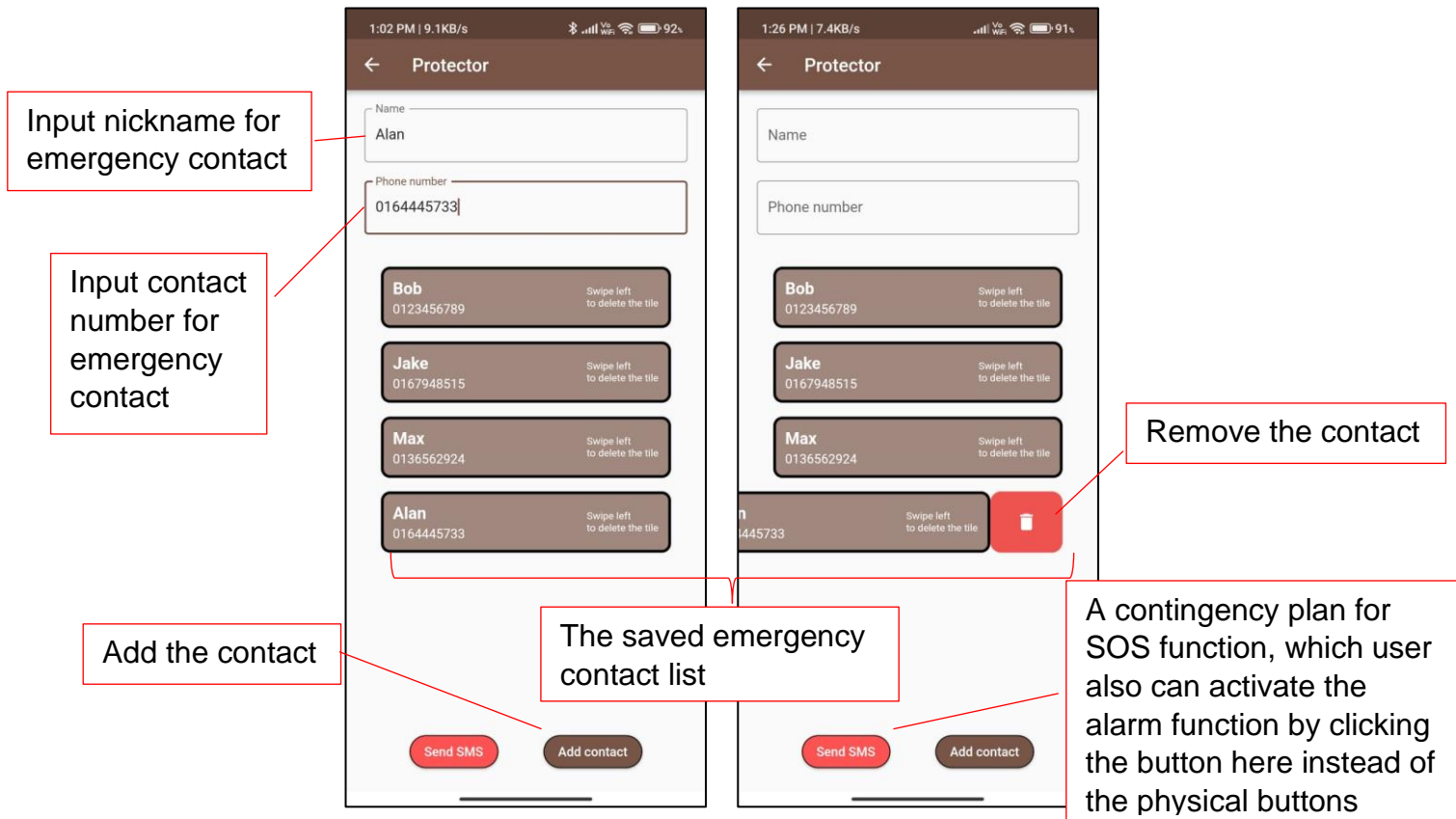
2.1.2.1 Home Page



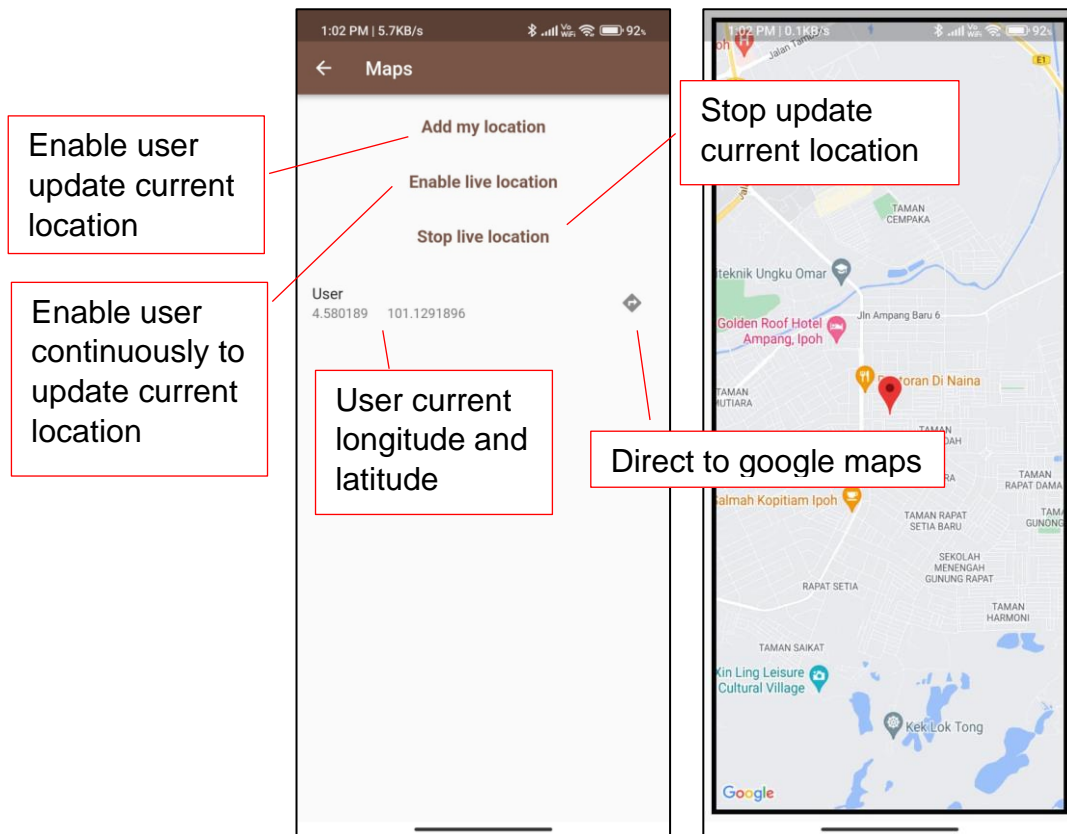
2.1.2.2 Bluetooth page



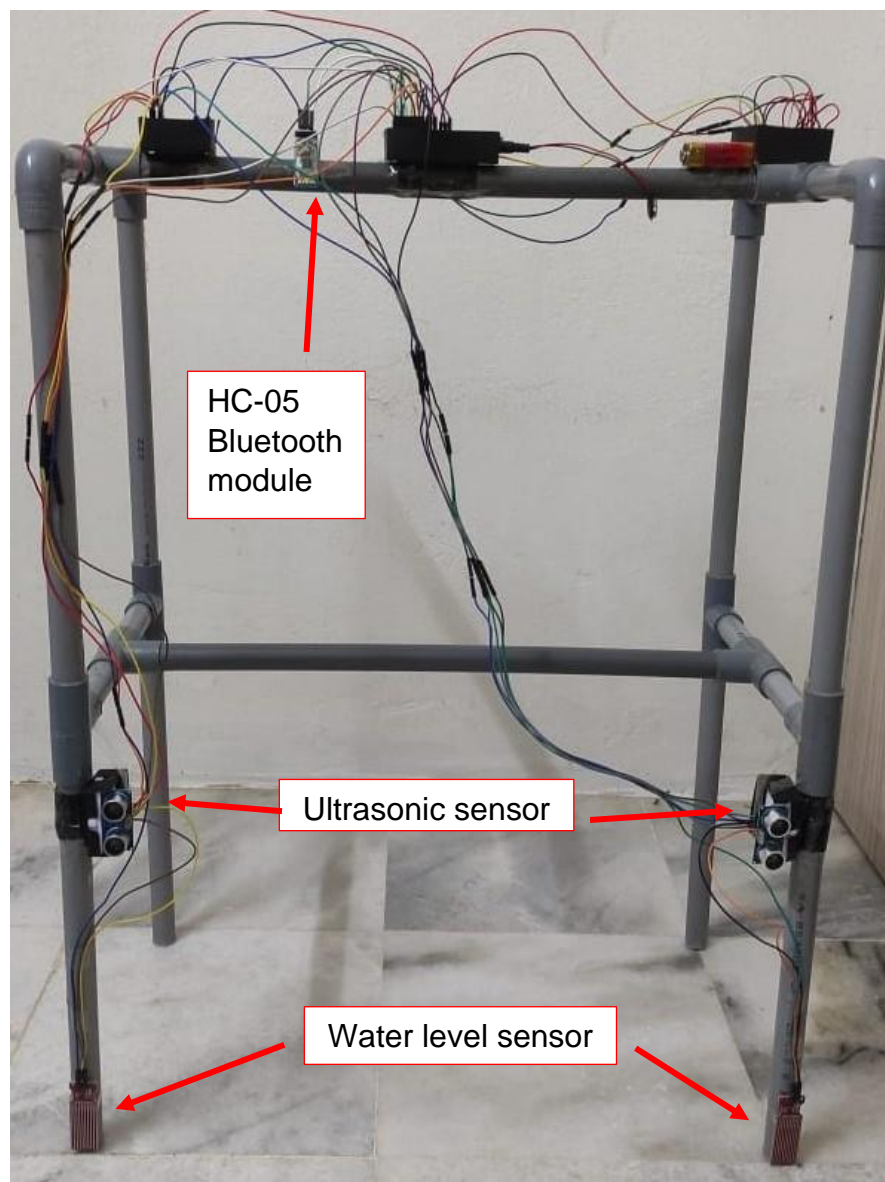
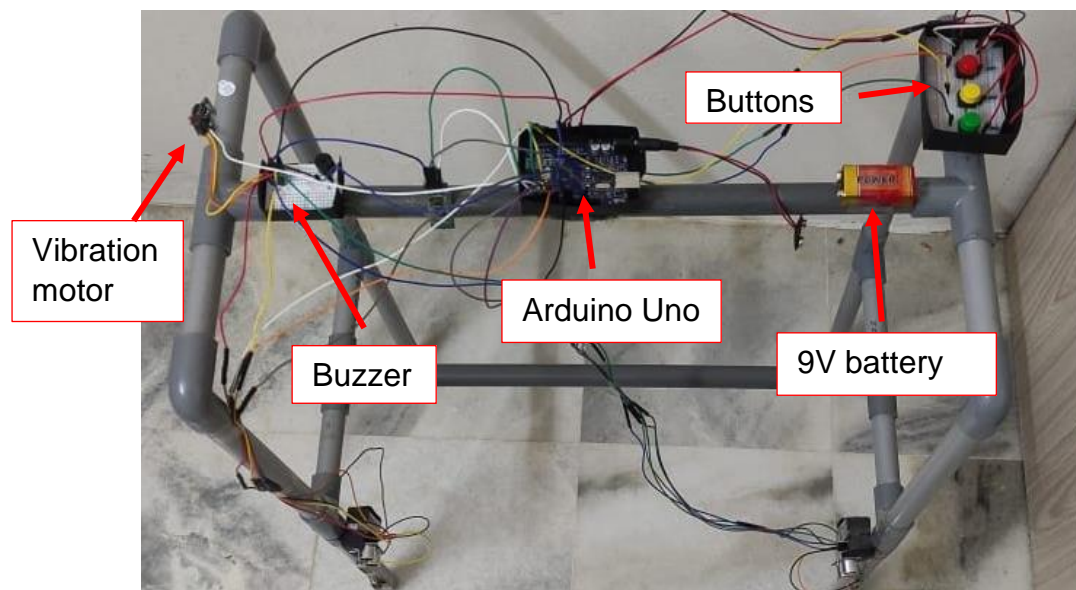
2.1.2.3 Protector page



2.1.2.4 Maps page



2.2 Hardware



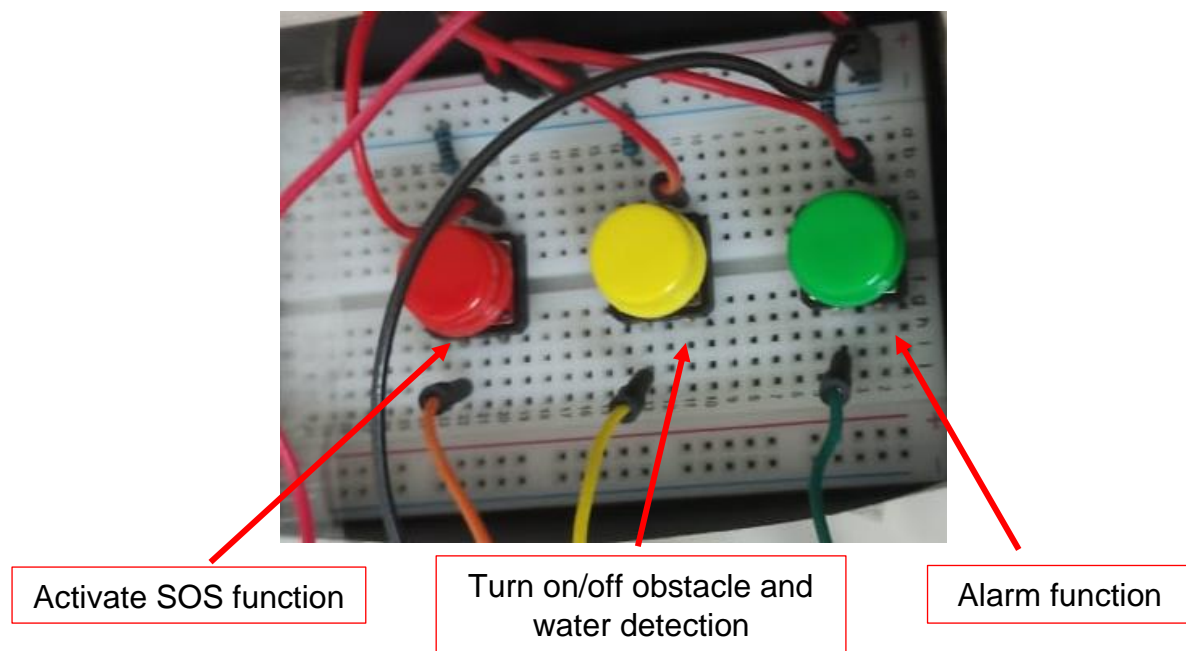
3.0 How to use

To fully perform all the function of Smart Walking Frame, please make sure have good internet connection and Bluetooth connection.

Pre-condition:

1. Power on the Smart Walking Frame.
2. Turn on internet on mobile phone.
3. Turn on GPS on mobile phone.
4. Connect to Bluetooth HC-05 from the apps to the walking frame.
5. At least one emergency contact is set.

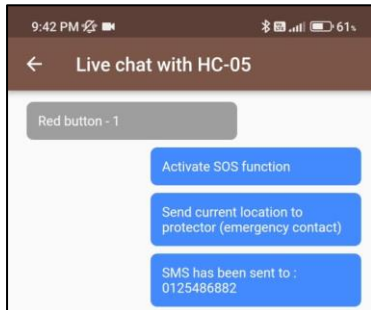
After fulfilled all the pre-condition, user may start to use the Smart Walking Frame.



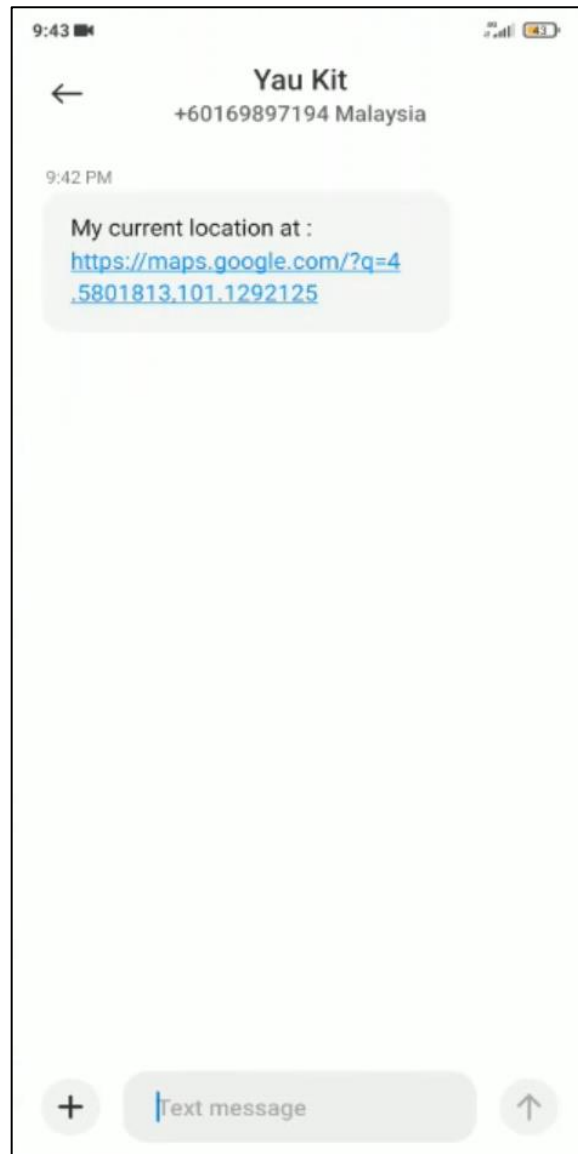
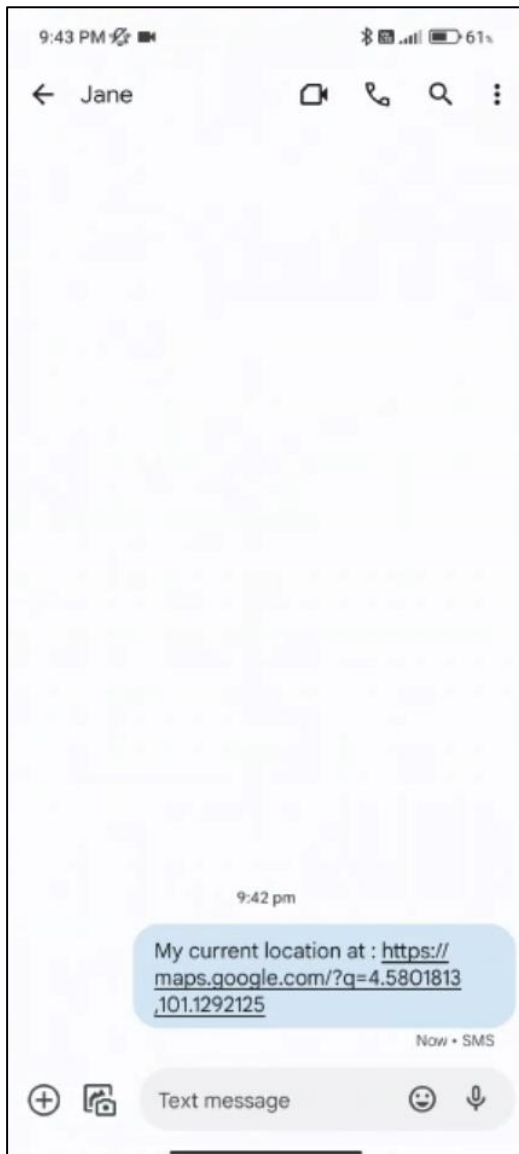
On the Smart Walking Frame, it provides 3 different buttons, and those buttons have its own function. Other than this, in the mobile apps also provided a live location feature.

1. SOS function

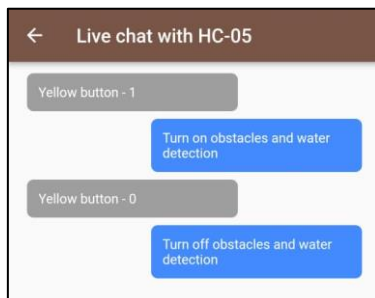
It will trigger the SOS function when user click on the red button, which means it will send the current location of user to the emergency that have been set.



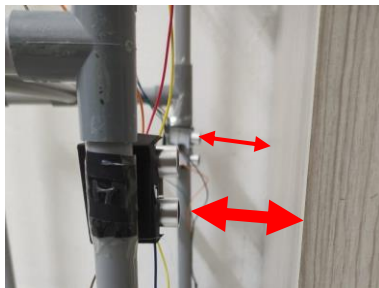
When user click on it, this is the data transmission in the app. It will send a SMS to the emergency contact that have been set. The screenshot below shows the SMS of both sender and receiver



2. Turn on/off obstacles and water detection



Once the yellow button is pressed, the obstacles and water detection function will be turned on or turned off based on the current state. When an obstacle is detected, it will turn on the vibration motor and buzzer as a signal to alert user. When there's presence of water, it will alert the user by using the vibration motor only

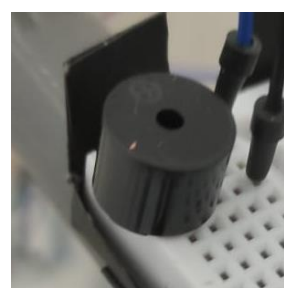
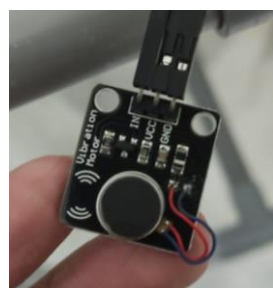


The distance of the detected obstacle will affect the frequency of sound gap



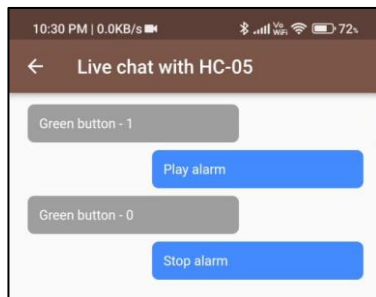
The water level of detected liquid will affect the power level of the vibration motor.

The diagram below shows the vibration motor and the buzzer.



3. Alarm function

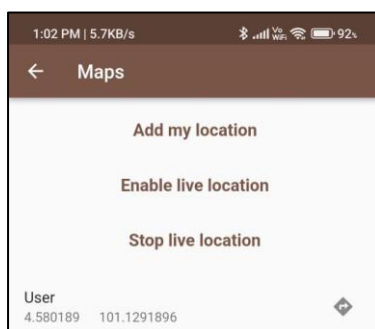
Once the user clicks on the green button, it will turn on or turn off the alarm based on the current state.



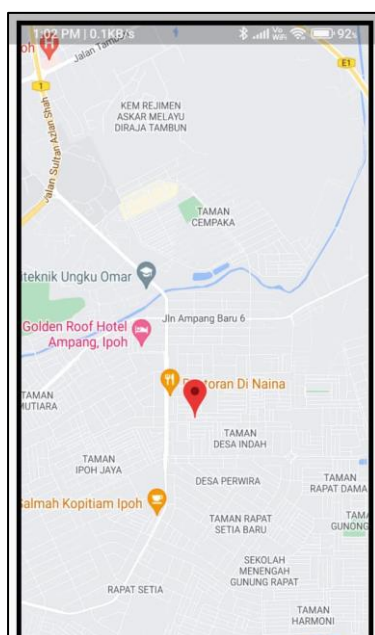
When user click on it, this is the data transmission in the app. It will play an alarm audio from mobile phone itself if turned on. After that it will stop the audio when user click the button for another time.

4. Live location

Live location is the location tracking for the user. Other relatives or friends can keep track on the location of user if they have downloaded the mobile app.



To enable the live location feature, user have to click on "Enable live location" button, then it will continuous update the latitude and longitude of the current user to online database.



Therefore, other people can view the location of user by clicking the navigation button to open the map. The red marker is the current location of the user.

4.0 Uninstallation

The uninstallation only can be performed on the software, which is the Smart Walking Frame app.

Drag the app icon to the uninstall area, after that clicks on “UNINSTALL”.

