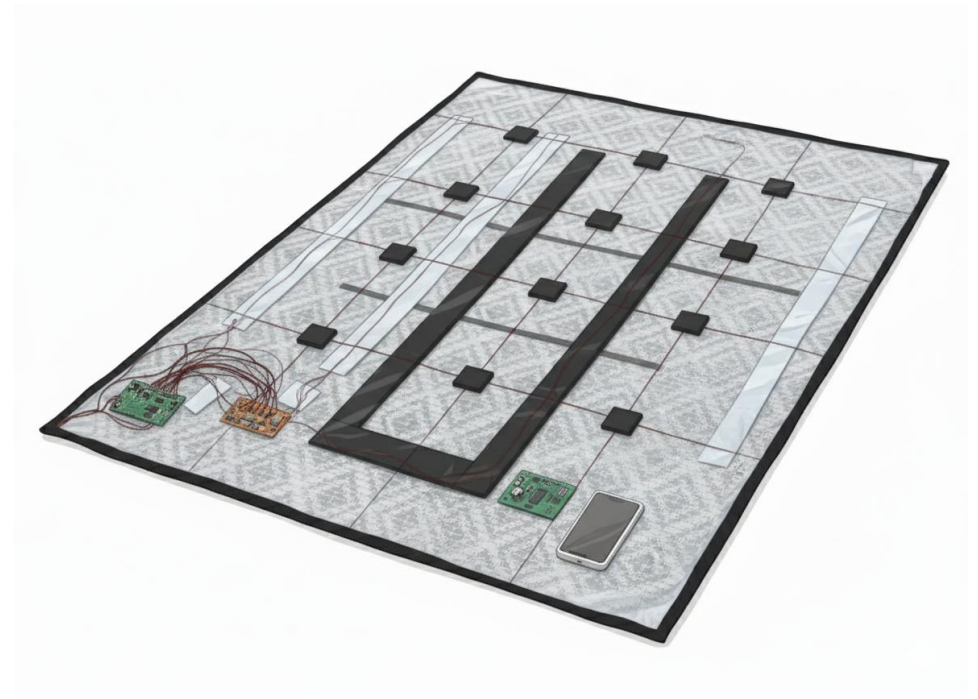# User Manual

Caring Rubber Sheet

Manufacturer Contact Address

Sattahip Technical College, 193 Moo 3, Sukhumvit Road, Najomtien Subdistrict,Sattahip District, Chonburi Province, 20250
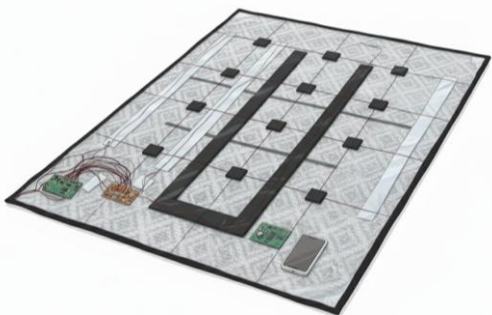
Contact channels

📞 Tell: 063-378-5801

📘 Facebook:Thanawin Choojit

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Components

- FSR406 Pressure Sensor

- ESP32 Microcontroller

- ADS1115 (Analog Signal Receiver)

- Buzzer 3-18 V

- Pilot Lamp

- Lithium Polymer Battery 3.3V 20,000 mA

- TP4056 Battery Charging Module

- Universal Printed Circuit Board (Perfboard)

- ON/OFF Switch for Sensor Pad

Technical Specifications

- Voltage: 3.3–3.7 VDC

- Capacity: 20,000 mAh

- Do not place objects or heavy items on the rubber sheet.

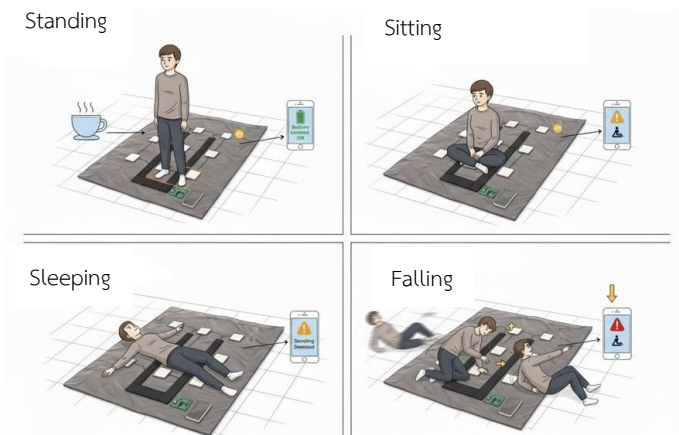- Avoid using the sheet outdoors.

Maintenance

- Turn off the switch after use.

- Store the rubber sheet without folding, rolling, or placing heavy items on it.

- Keep in a dry area without moisture.

- Fabric or carpet on top of the sheet can be removed and cleaned.

Important Notes

- Charging can be done using a Type-C cable directly on the sheet.

- To check battery percentage, turn on the switch and open the app (system enters online mode).

- After the battery is fully charged, it can remain plugged in or be unplugged due to built-in cutoff protection.

- When someone falls and can stand up again, an alert is sent to the application. The indicator light is yellow, indicating a fall has been detected.

- When the specified time elapses (the elderly person falls and cannot stand up), an alert is sent to the application. The indicator light is red, and an audible alert will be sounded, indicating a fall has been detected and the elderly person cannot stand up.

Posture-Based Alerts

Standing | Sitting | Sleeping | Falling

Standing/Walking: 3–4 sensors are pressed.

Sitting/Lying/Falling: More than 4 sensors are pressed.

(The system will time the process. If the fall or sleep alert persists for longer than the set time, the system will send an audible alert to the caregiver and display a red light signal. If the button is still pressed, the system will send an alert to the caregiver.)
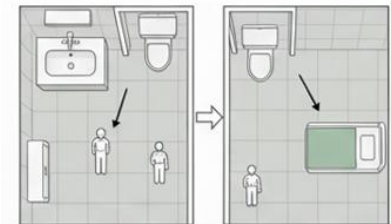
Precautions

- Read the manual carefully before use and store it properly for future use.

- The placement area must be flat and free of objects.

- Check the switch to ensure it is in the correct ON/OFF position before use.
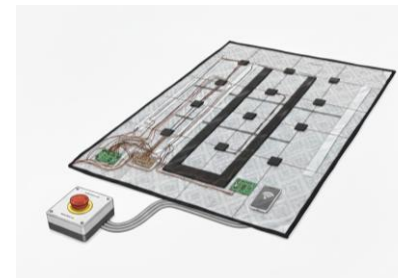
Installation Step

1.Clean the area to be installed and make sure it is dry and tidy.

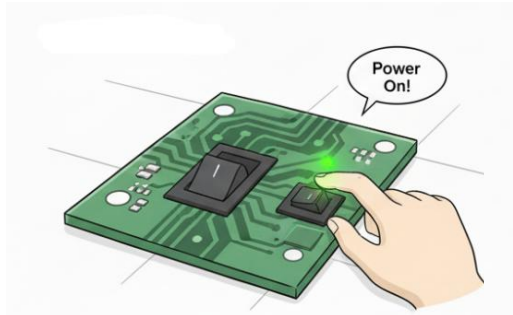2.Place rubber sheets in accident-prone locations.
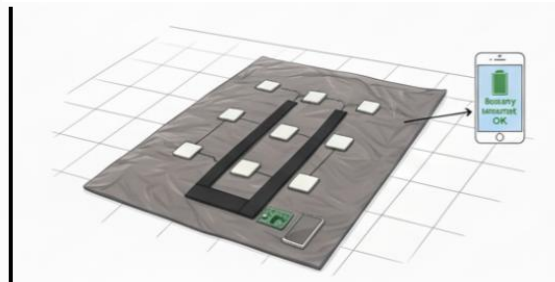

3. Connect the rubber sheet to the control box.

How to use the rubber care sheet

1.Turn on the switch of the rubber ring plate.

2.Check the battery and internet.

3. Check the battery and internet.

Notification System

• When the sheet detects:

1. Someone standing or walking past, the value will be displayed on the screen and an alert will be sent to the application. The indicator light will turn green, indicating a normal condition.

2. Someone has fallen but can stand up again, the value will be displayed on the screen and an alert will be sent to the application. The indicator light will turn yellow, indicating a fall has been detected.

3. If the fall lasts too long (the elderly person cannot stand up), the value will be displayed on the screen and an alert will be sent to the application. The indicator light will change from yellow to red, and an audible alert will be sounded, indicating a fall has been detected and the elderly person cannot stand up.

• If someone is standing or walking past, there will be no alert like with sitting or falling, unless the application is left open.

• If the battery is low or the connection is lost, the system will go offline and cannot send data.

The sheet's alert system works as follows:

- When someone walks past or stands, an alert is sent to the application. The indicator light is green, indicating a normal condition.