

Installation Manual

1. Introduction

The RescueTouch Emergency System is designed to assist Deaf-Blind individuals in emergency situations. This manual provides step-by-step instructions for installation and usage.

2. Components Required

- Nucleo-64 STM32F401RE Board
- Miniature Push Buttons (4-5)
- 1 Servo Motor
- 1 LCD 16x2 Display
- 1000 Ohm Resistors (as needed)
- USB Power Adapter (10V)
- Jumper Wires
- Battery

3. Installation Steps

3.1 Connect the Components

1. Wiring the STM32 Board:

- Connect the STM32 board to the USB power adapter using jumper wires.
- Use the 1000 ohm resistors to connect the push buttons to the GPIO pins on the STM32. (Refer to figure 4.3.1 & 4.3.2)

2. Attach the LCD Display:

- Connect the LCD display to the STM32 using appropriate jumper wires.
- Ensure the power and ground pins are correctly connected. (Refer to figure 4.3.1 & 4.3.2)

3. Install the Servo Motor:

- Connect the servo motor to the STM32, ensuring that the signal, power, and ground pins are correctly wired. (Refer to figure 4.3.1 & 4.3.2)

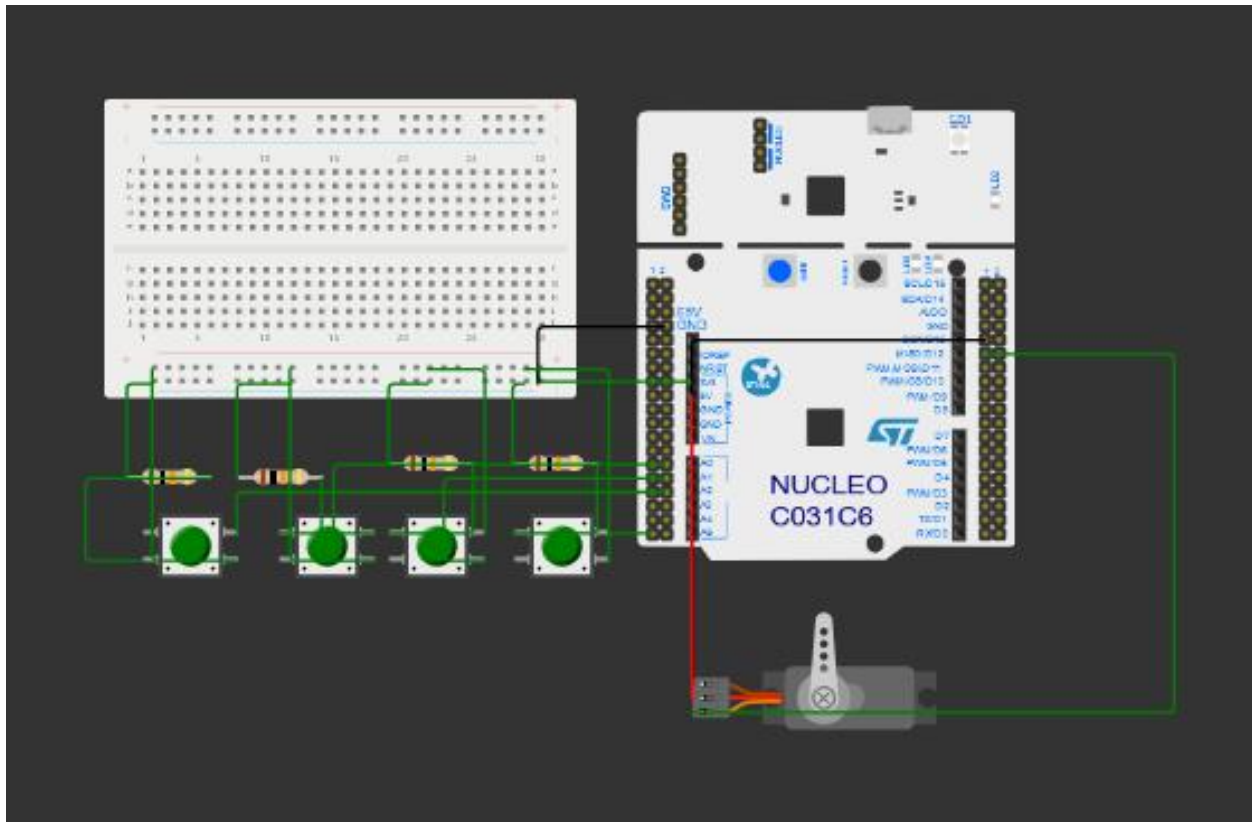


Figure 4.2.1: RescueTouch Emergency Device 3D Diagram (User)

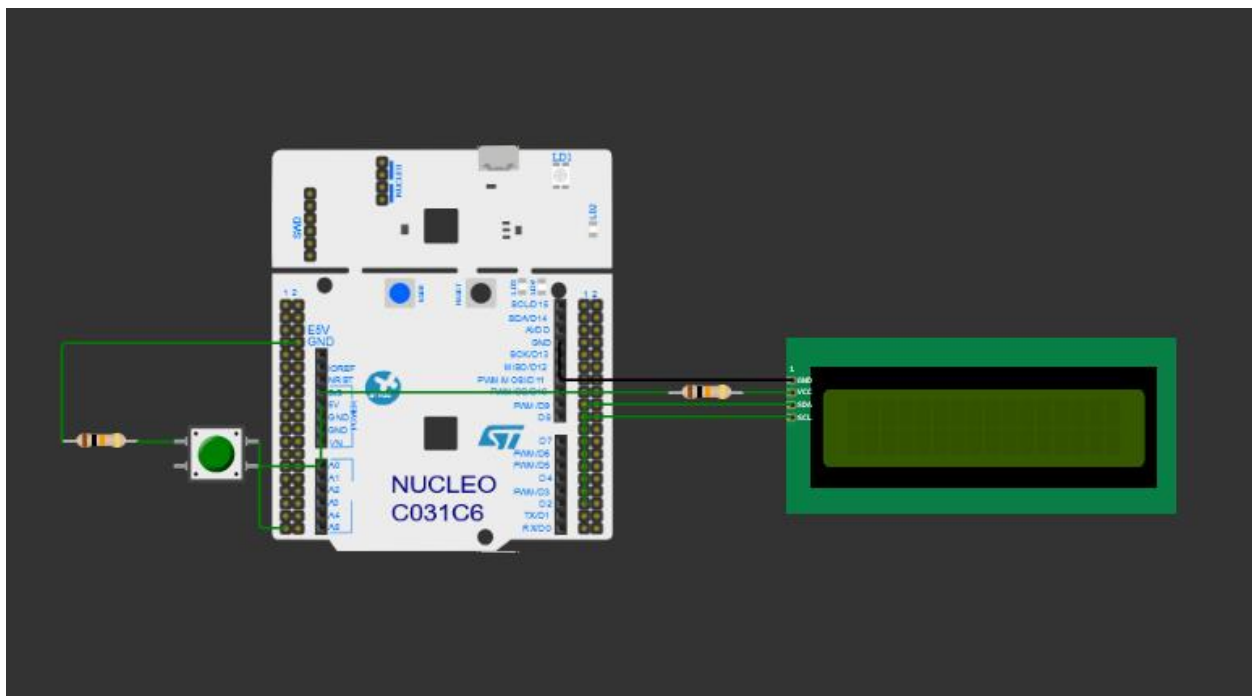


Figure 4.2.2: RescueTouch Emergency Device 3D Diagram (Emergency Service)

3.2 Power Up the System

- Plug the USB power adapter into a wall outlet and connect it to the STM32 board.
- Verify that all connections are secure.

4. Testing the System

4.1 Initial Test

1. Power on the system and observe the LCD display for startup messages.
2. Press each push button to ensure the system responds accordingly.

4.2 Functionality Check

- Ensure the servo motor activates as intended when the corresponding button is pressed.
- Confirm that emergency alerts are sent successfully via the wireless transmission module (if applicable).

5. Safety Precautions

- Avoid using the device in wet or humid environments to prevent electrical hazards.
- Handle all components with care to avoid damage or injury.

6. User Guide

6.1 Operating the System

- To send an emergency alert, press the designated push button.
- Observe the LCD display for feedback on the alert status.
- Follow any additional prompts displayed on the screen.

6.2 Maintenance

- Regularly check all connections and replace any damaged components.
- Keep the system clean and dry to ensure optimal performance.