Elevator Floor Call Test Plan

DISCLAIMER: This test plan is intended to test and confirm that elevator floor commands are fully functioning via CAN communication for an elevator network. The person performing these tests must meet the following criteria:

Safety Training: The tester must have appropriate safety training, which includes passing the Electronics Systems Engineering Safety Quiz.

Training Prerequisites: The tester must have successfully completed all prerequisite classes required for participation in Project VI.

Additionally, the following points should be considered:

Only qualified personnel with relevant experience and knowledge should conduct these tests. All safety protocols and guidelines must be strictly followed during testing to ensure the tester's and others' safety. Testers must be proficient in using all relevant equipment and tools required for the testing procedures. Comprehensive documentation of all test results, observations, and anomalies must be maintained. Testers should be familiar with emergency procedures and have access to emergency contact information. Testing should be conducted in an environment that meets all safety and operational requirements for the equipment being tested.

Failure to adhere to these guidelines may result in inaccurate test results, equipment damage, or personal injury. The tester acknowledges and accepts these conditions by proceeding with the testing.

Name of Test Inspector: _____ Date: _____

Test Number	Test Description	Pass/Fail Criteria	Measurements/ Observations	Results: Pass/Fail
Section 1 Initial Elevator Inspection				
1.1 Visual Inspection	Inspect the elevator system for correct assembly and connection of all hardware components. Verify that all wires and connectors are correctly attached. Ensure there are no loose parts or exposed wires. Check that the Raspberry Pi and other electronic components are securely mounted.	**Pass:** All components are correctly connected with no loose or exposed wires. **Fail:** Any component is incorrectly connected, loose, or has exposed wires.		

1.2 Power-On Check	Confirm that the elevator system powers on correctly. Connect the power supply to the system. Switch on the power and observe the system's startup. Ensure all indicator lights are functioning as expected.	**Pass:** The system powers on without issues, and all indicator lights function correctly. **Fail:** All systems do not power on, or indicator lights do not function as expected.		
1.3 Safety Check	Verify that the system is in a safe operational state to proceed with further testing. Ensure emergency stop mechanisms are accessible and functional. Confirm that there are no hazards (e.g., items that may interfere with moving components within the elevator).	**Pass:** Emergency stop mechanisms are functional, and no hazards are present. **Fail:** Emergency stop mechanisms are non-functional, or hazards are present.		
Section 2 CAN Communication Testing				
2.1 Network Connectivity Test	Ensure all elevator nodes operate on the CAN network with the same communication protocol by pushing the blue button on any node (STM32 Dev. Board).	**Pass:** All elevator floor controllers respond to any blue push button press by illuminating their LEDs. **Fail:** Any floor controller fails to illuminate their LED.		
2.2 Command Execution Test	Validate that floor requests are received and transmitted to the correct controller by testing each floor request button. Observe the execution via floor and button LEDs to verify that the correct controllers respond.	**Pass:** Every push button yields the correct command execution, and the expected LEDs illuminate in response. **Fail:** The elevator fails to respond to the command, or the action does not occur as expected.		

I, _____(print name here), hereby confirm that the test results documented herein are accurate and truthful to the best of my knowledge and ability.

Signature: _____Date: _____