LANforge WebGUI Interop Testing

Introduction

This document provides a step-by-step guide for using the LANforge WebGUI for Interoperability and Real Device Wi-Fi Testing. It covers the complete workflow starting from accessing the WebGUI, connecting to the LANforge Manager, monitoring device logs, screen mirroring, device management, robot configuration, and executing both standard and advanced automated test scenarios.

Configuration

After your testbed is configured, pick a non-existing and unique realm number, and cluster your InterOp devices by following the cookbooks below according to your device:

- Android: InterOp Setup for Android
- Linux: Installing LANforge Server on Ubuntu or Linux Machine
- Windows: Installing LANforge Server on a Windows Machine
- MacOS: Installing LANforge Server on a MacOS Machine

Once all the devices are clustered, they should show in the *Status* and *Resource Mgr* tab

After that install the LANforge WebGUI.

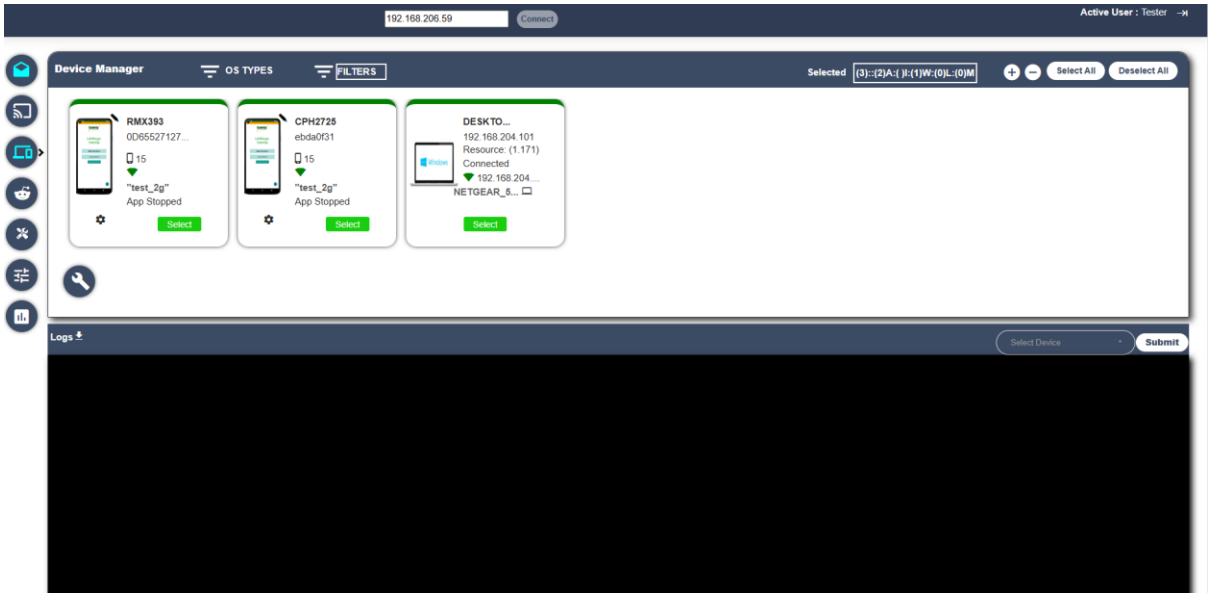
Landing Page:

This is the landing page that we see once we access the WebGUI over “lanforgeIP:5454 – eg 192.168.206.59:5454”

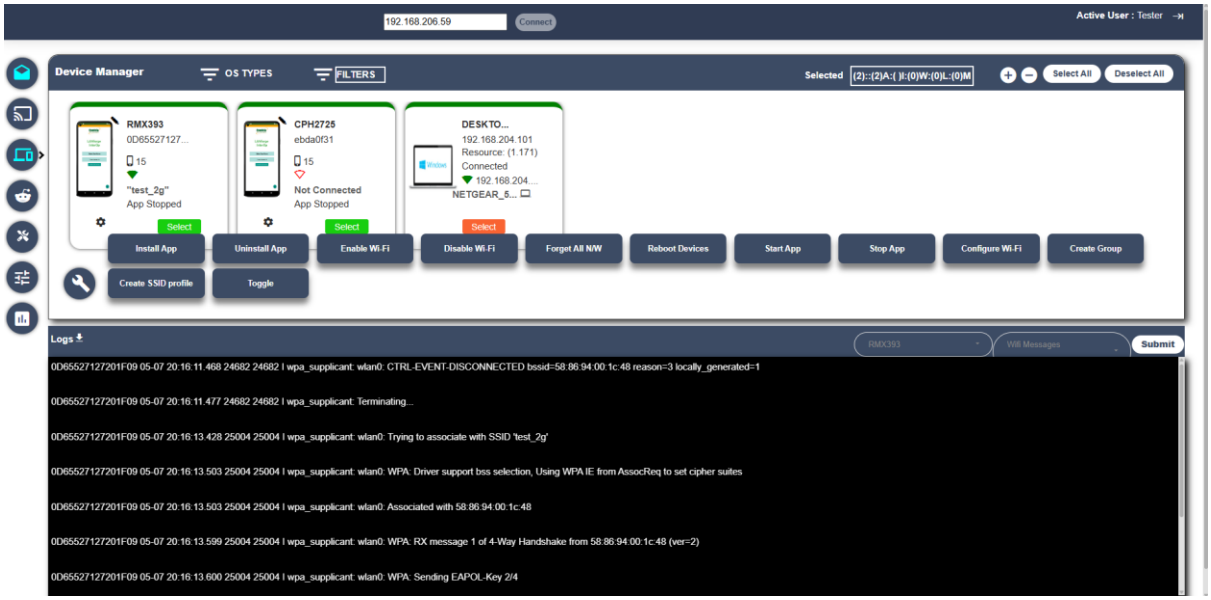
Enter the Lanforge Manager IP in the above field and click on “Connect”.

All the devices that are clustered with the Manager Lanforge will show up here.

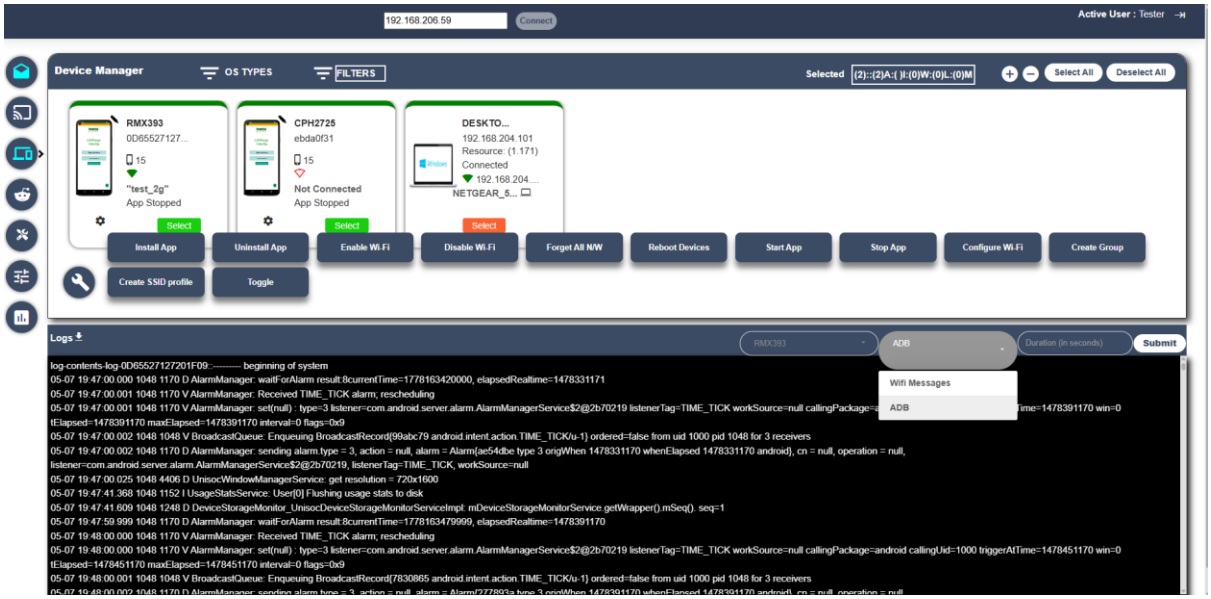
Logs Section:



The left menu contains different sections among them the first is the Logs section.



Click the logs section and select the devices in the device tile (the selected devices are in green and unselected will be in red)

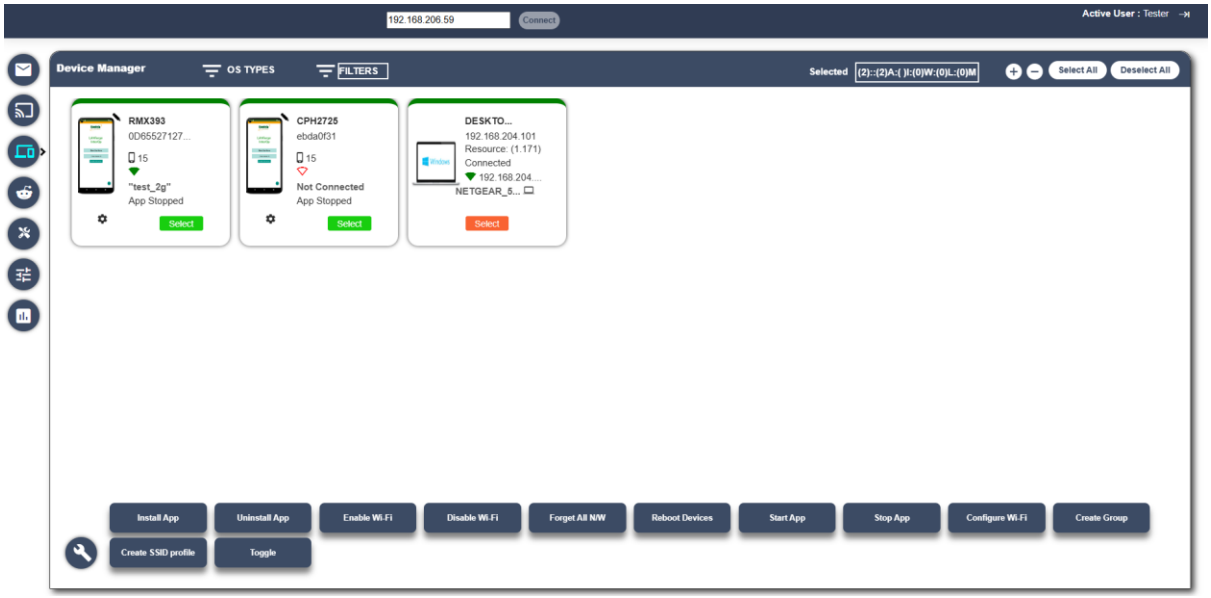


We can look at the Wi-Fi messages and ADB logs of the selected devices in the bottom of the screen.

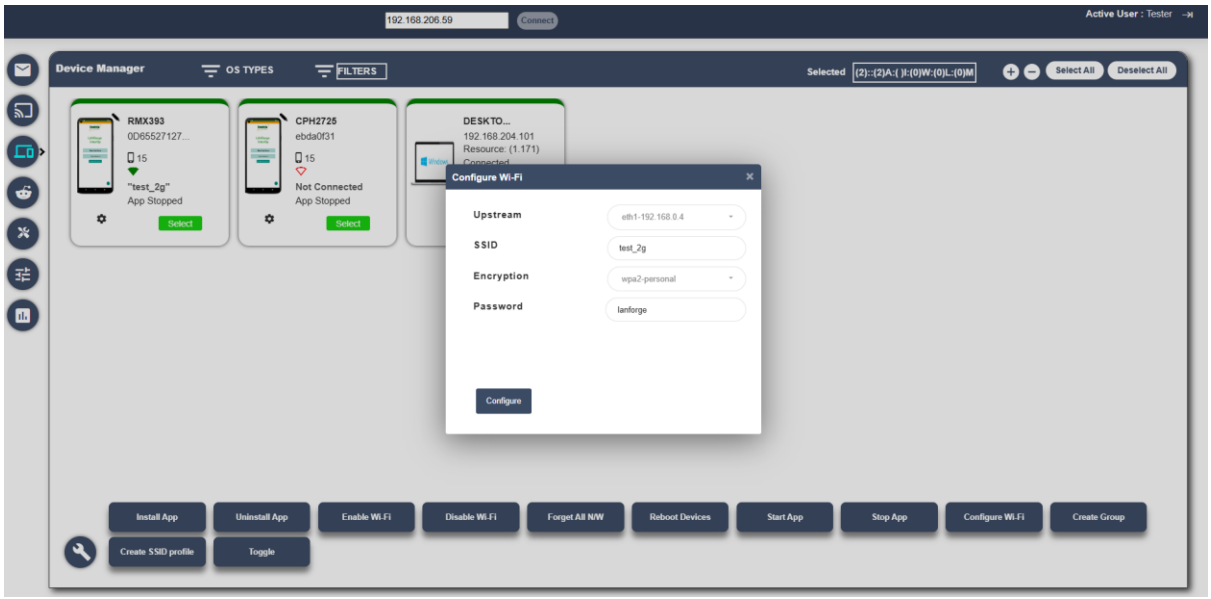
Screen Mirroring:

The next option is screen mirroring, click on the screen mirroring icon and then select the device that you would like to have the screen mirroring on the right side of the screen.

Device Manager:



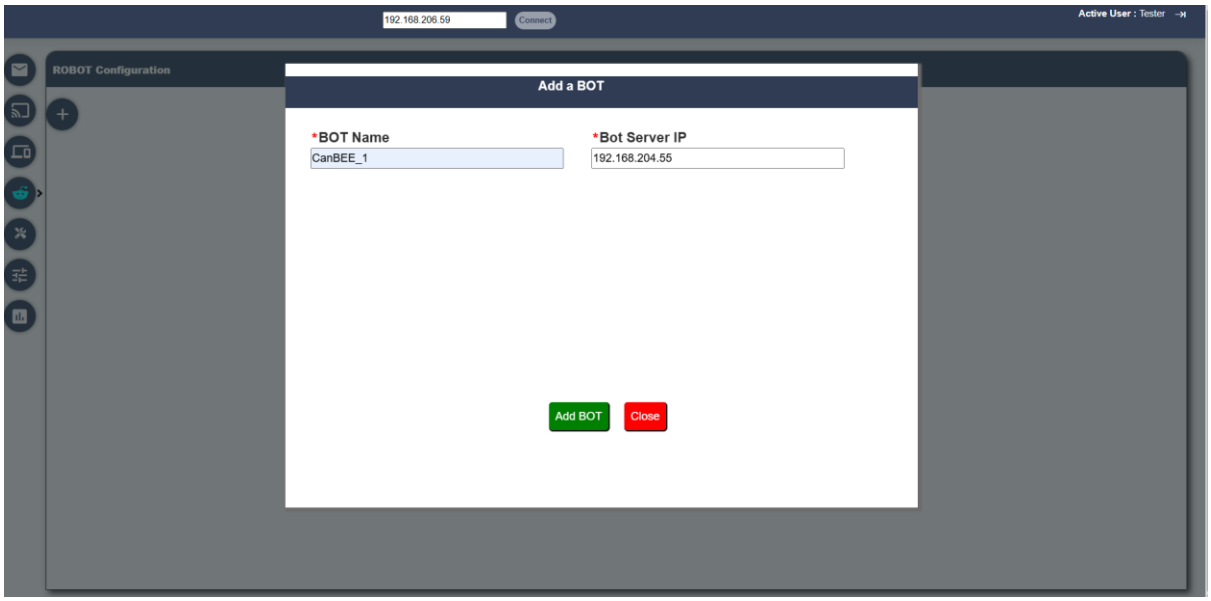
The next section is the device manager section, all the devices clustered to the Manager are shown here along with their, status (managed, connected to wifi, App state etc, SSID, IP, Resource number)



From this section we can manage and configure devices using the options available such as Install Candela Interop App, Uninstall, Enable Wi-Fi, Configure Wi-Fi, Start/Stop App etc.

Robot Config Page:

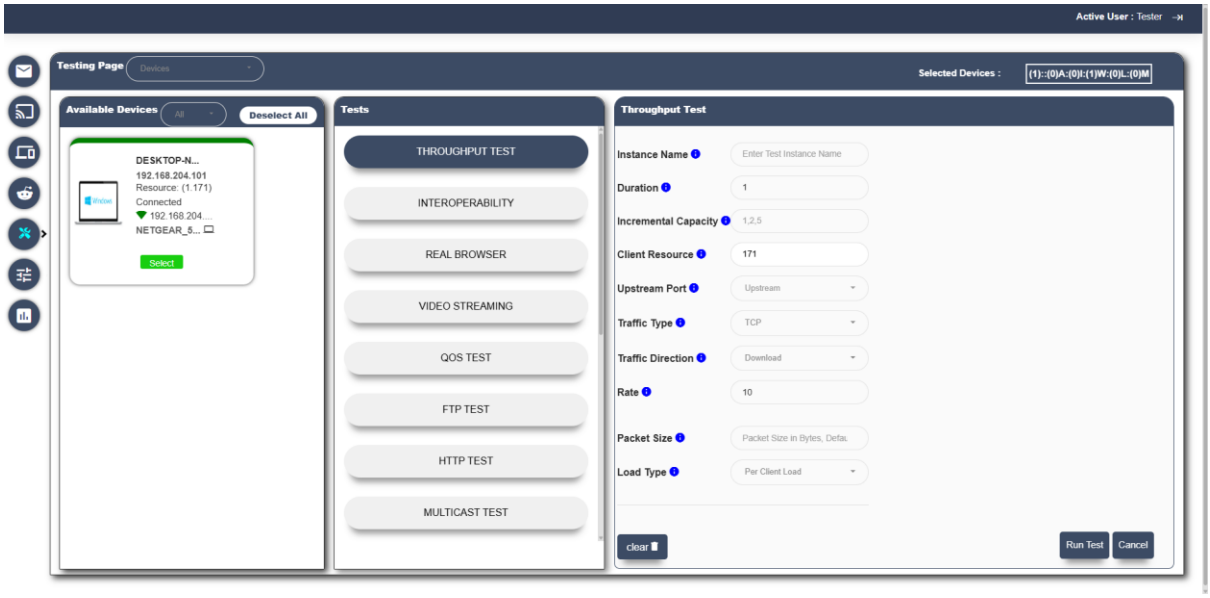
In this page we will configure the Robot names and the IP address for the ease of use in case of Robot Test Cases and Multiple robot scenarios.



Click on the "+" symbol in top left and enter the name that you would like to assign to both and enter the IP address of the Robot.

Now click on "Add BOT" and then click on "Close".

Testing Page:



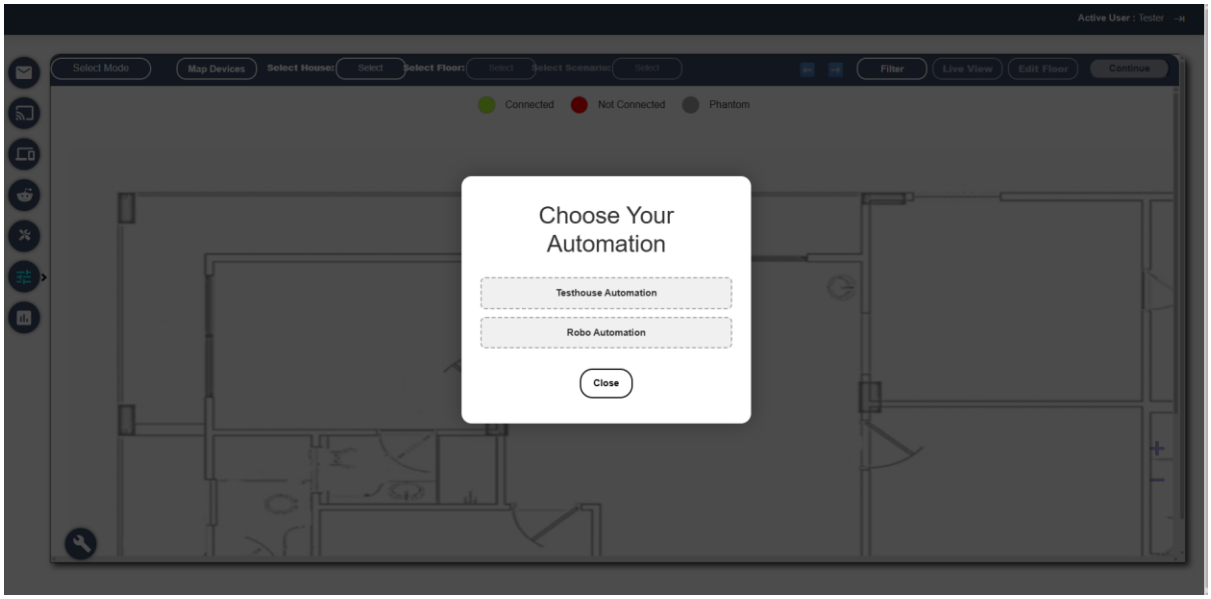
Testing page consists of all the real device Wi-Fi Test Cases.

Select the devices that you would like to be the part of the test and select the test among the list. Enter the required parameters and test configuration and then click on run test.

Follow the below links for detailed procedure to run the tests.

- Throughput Test
- Interoperability
- Real Browser
- QoS Test
- FTP Test
- HTTP Test
- Multicast Test
- Ping Test
- Port Reset Test
- YouTube Streaming Test

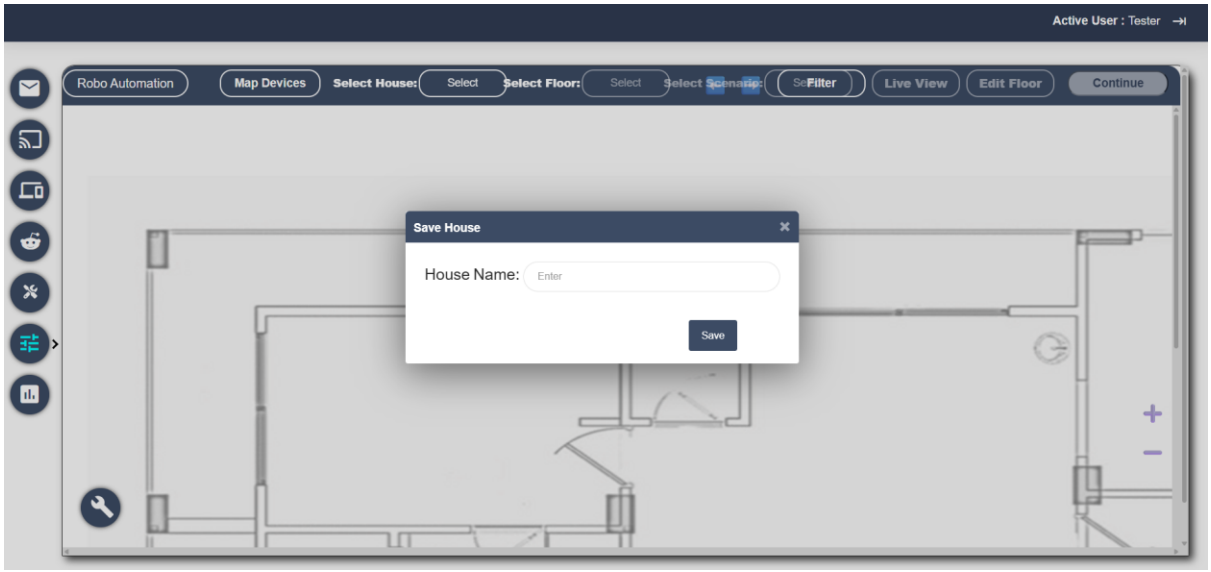
Advance Testing Page:



Advance Testing Page consists of two different sections.

- Test house Automation
- Robo Automation

Select the required use case, in this case Robo Automation

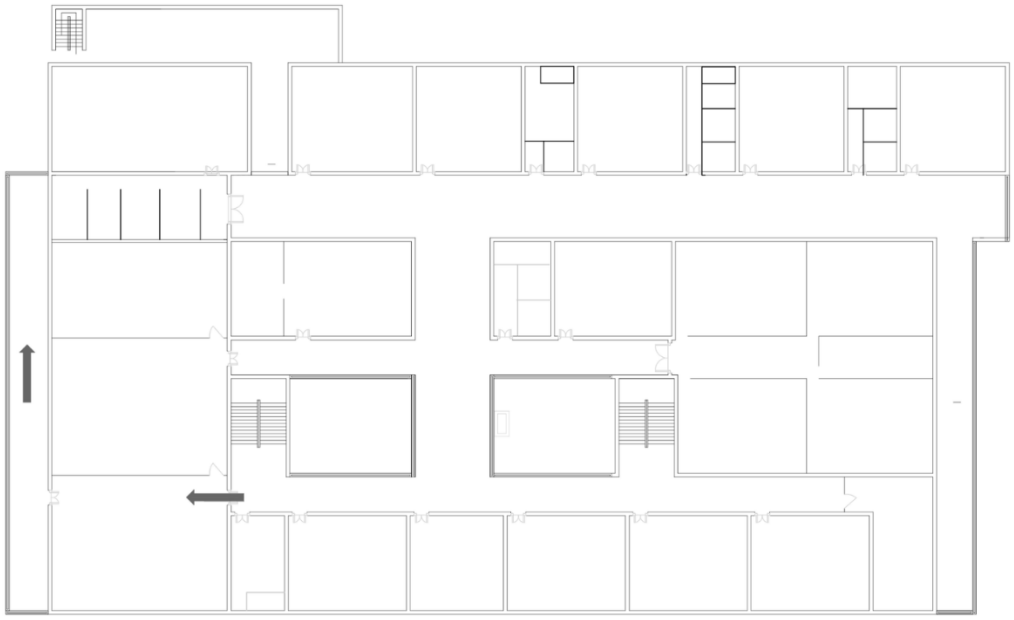


Enter the name of the test house.

Then the UI prompts, "Do you want to change the image of the floor?"

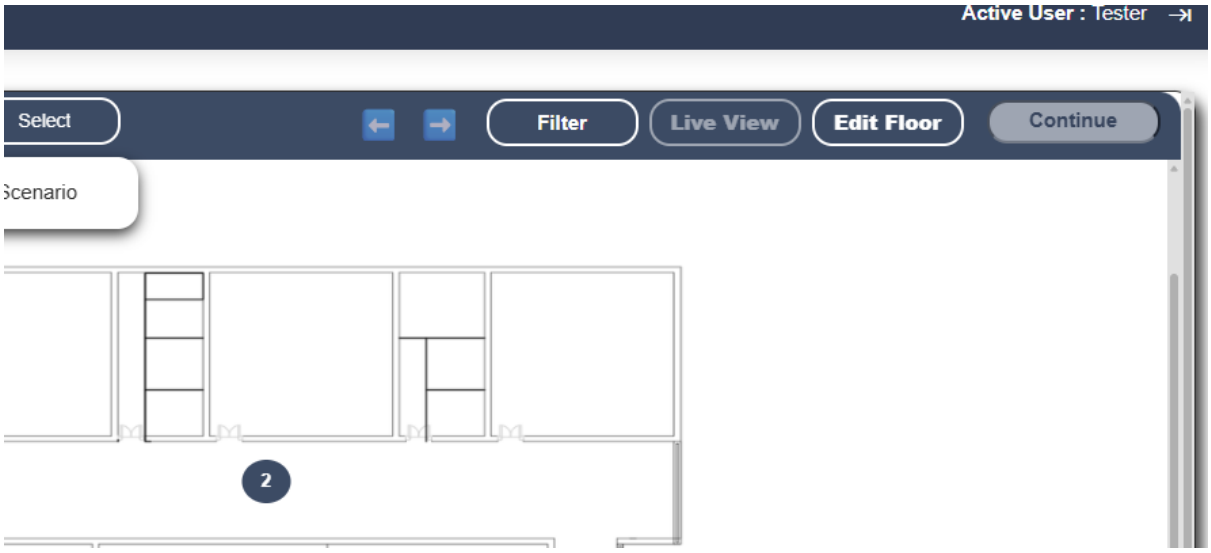
Click on Change Image and upload the floor map of the test house in a gray format.

Below is an example of how the floor map image should look like.

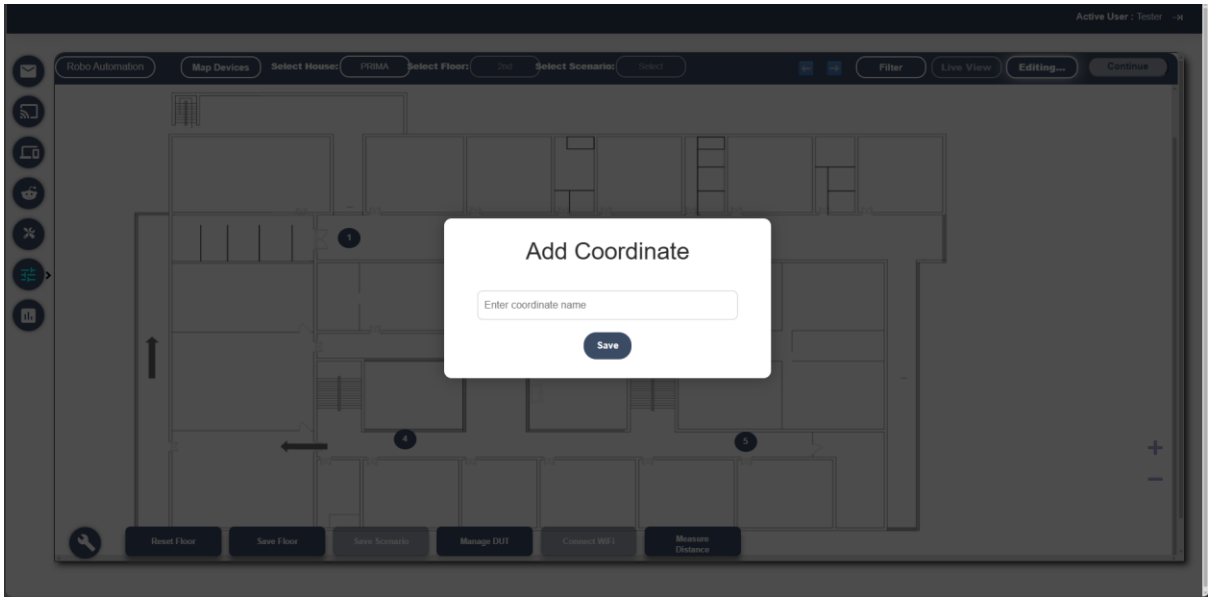


After uploading the image, click on the settings icon in the bottom left corner of the screen and click on “Save Floor”.

Give a name to the floor and click on save.



Now click on “Edit Floor” button in top right corner to add coordinates to the floor map.

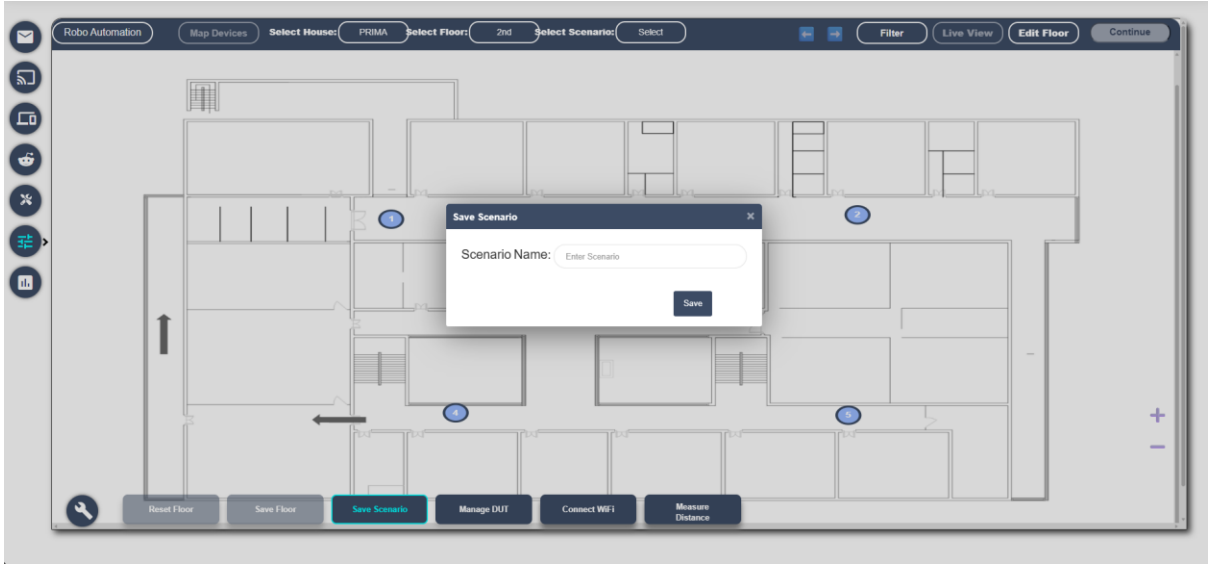


Right click anywhere on the floor map and click on “Add Coordinate” and enter the name of the coordinate.

You can drag and place the coordinate to its respective position.

Once you are done with adding the coordinates to the floor map click on save floor once again.

Now Click on “Select” beside “Select Scenario” and then click on “Add scenario” to add your very first scenario.



Select the coordinates in an order which you want to execute and then click on save scenario in the settings menu below. Give a name to the scenario and then click on continue in the top right corner to go to testing page.

Now select the devices that are to be tested and then select the test that you would like to run. Enter the test configurations which will also have new

parameters such as orientations for robot, skip duration - to skip a particular coordinate if there is any obstacle on the point and then click on run test.

Follow the below links for detailed procedure to run the tests.

- YouTube Streaming Test