



GadgEon

Engineering Smartness

SAFETY BRAND COMPANY



Safety Brand Company



Company needed an Automation platform supporting most of its product lines in IoT

Results / Outcomes

- GadgEon designed Automation Framework that supports test case convergence spanning different product types with Mob App
- USB Controlled multichannel relay control for simulating button press events.
- Reduced effort and schedule by automating 90% of regression, reliability and performance test cases.



System Description

Challenges

- Automation Framework for Multiple products managed using single Mobile Application.
- Manual interaction was required to initiate pairing mode in DUT (5 times button press).
- Effort and Schedule for Reliability testing(Long duration) with multiple configuration cycles ent area

Technology used :

- Robot framework, Python, Selenium, Appium, TestRail, Jira

Protocols Used

- WiFi, BLE, HTTPS

Cloud Service Automation

- Selenium, Jmeter

Device Automation

- Python, Selenium, Wi Fi, BLE, SSH, USB Controlled Relay, HTTPS

Mobile App Automation

- Appium

Continuous Integration

- Implemented Continuous Integration process as part of development and testing phases
- Jenkins, Git

Test Management and Reports

TestRail, Robot Framework



System Description

Feasibility Study and Documentation

- Requirements Gathering & Analysis
- Defined functional test cases
- Use case based on end to end test scenarios

Automation Framework

- Designed Automation framework which can validate Mobile App, Device
- UI/CLI(Web Interface / RS232 Serial), Device LED indicators and Cloud API's
- Python based automation framework with Selenium Webdriver and Appium
- support for verifying the device/CLI(Web Interface / RS232 Serial) and Mobile App
- (for iOS & Android).
- Relay controls and Off the shelf hardware with custom firmware to verify the button
- press events and LED status indicators.
- Achieved 85 % of test coverage for functional test cases
- Achieved 100 % test coverage on regression test cases
- TestRail , Python, Appium , Selenium webdriver and Robot Framework

Test Script Reusability

- Custom global methods are defined for test script reusability across different product variants.
- Python, Appium , Selenium webdriver and Robot Framework



Automation Framework Architecture



THANK YOU



For More Details, Let's Connect



Gadgeon Systems Inc.

881 Yosemite Way, Milpitas, CA 95035, USA

CONTACT - USA

Mani Ram - Vice President - Solutions and Technology

 +1-678-900-0874 |  mani.ram@gadgeon.com

Gadgeon Smart Systems Pvt Ltd.

VI 405/E1, Fathima Tower, Maleppally Road, Thrikkakara PO,
Kochi, Kerala, PIN: 682021, India

CONTACT - INDIA

Hari Nair - CEO: +91 9895 01 58 80

 +91 989-501-5880 |  hari.nair@gadgeon.com

Gadgeon Europe

Antwerpsesteenweg 124/54, 2630

Aartselaar, Belgium

 +32-475-233-947 |  europe@gadgeon.com

 sales@gadgeon.com