Generic Input Simulator for Embedded Systems

Project Proposal

Marko Klemetti - 5.9.2019

Introduction

Eficode is the leading DevOps organization in the Nordics. We are more than 300 designers, developers, coaches, automation engineers, UX and DevOps specialists building the future of software development. We currently have 10 sites in the Northern European region.

A big part of our DNA is Automation, and this is where the idea for our Aalto project was born. While working together with many embedded software organizations (e.g. GE, KONE, Volvo, Sennheiser, Suunto, and many others) we have seen that acceptance testing an embedded device can be difficult. This is why as the target of this project we want to create a generic input simulator for embedded software development.

Project goals

- Selected generic hardware for running simulated input into an embedded service.
- Software for controlling the inputs.

Optional goals

- Robot Framework libraries to control the simulator output
- An example setup (demo or real-life)

Technologies

The team has a freedom to select their tools. We recommend hashtags #python, #nodejs, #golang, #raspberrypi, #gpio, #robotframework.

Requirements for the students

The project is moderate in difficulty. The team should have some interest and skills towards DevOps and Automated Testing.

Legal Issues

Depending on the results the results will be under Eficode IPR or made Open Source.

The material and demonstration materials from the project are public.

Client

The primary client is Eficode, but the solution will be tested and piloted on real-life embedded environments.

The sprint demos will be held in Eficode HQ, Kamppi, Helsinki.

Product Owner

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