

Thesis Proposal

Adapting Laser Simulator for Continuous Testing of Embedded System



Description

ADB Safegate is always looking for solutions that will improve the safety, throughput and efficiency at airports. One of our world-leading products is the Safedock visual docking guidance system helping pilots park the plane at the gate. The Safedock system uses laser scanning to determine the exact position of the aircraft.

One of the key factors when designing a safe and efficient embedded system is to have efficient and continuous testing. We at ADB Safegate are constantly looking to improve the continuous integration (CI) and testing of our airplane docking systems, and one part of this is our ability to mock or simulate various hardware parts. We are therefore looking for how to improve the presently used laser simulator, programmed in-house, to better suit our CI process.

The solution could be used as a part of our CI toolchain and needs to integrate with used build and test tools. The project will require both getting an understanding of the laser sensor technology, how it is used in the Safedock product and how a CI process can look for an embedded system. The thesis is most suitable for two students working together. It will be based in Malmö and may also include visits to other offices.

Tasks within the project:

- ▶ Identify the requirements of the simulator from a testing/CI perspective
- ▶ Implement a simulator prototype to be used for further process development
- ▶ Integrate with existing CI tool chain

Suitable skills and interests:

- ▶ Testing of embedded systems
- ▶ Continuous integration
- ▶ Software development, especially in C++

Application

Please send your application by December 1st 2017 to thesis@adbsafegate.com.

Title your email "**Master Thesis – Laser Simulator**"

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