

ELD522/ELP052 Embedded Software Development

Task 3 - RTX program test

In this task, you will need to identify and execute a set of tests and gather results from the tests in order to demonstrate the correct operation of the code developed in task 2.

Use the lecture notes and other materials to decide what tests you should carry out on the code. You should document which tests you have decided to implement and why, provide the code you used to carry out the tests, record the results you obtained and analyze the results.

It should be made as easy as possible for me to re-run the tests for myself once I receive your code and as much of the testing as possible should be automated. This is very important as, in practice, tests will need to be applied many times during the software development process, particularly as more code is added, changes are made and bugs are removed.

Only clarification of the task will be given and no advice will be forthcoming from me regarding which tests you should be carrying out.

Assessment

The coursework can be carried out individually or in groups of two. The coursework is worth 20% of the module marks. The assessment will be based on the following criteria.

- Justification of the set of tests you have selected for implementation (4%)
- Testing strategy, test results and analysis (6%)
- Ease of use of the set of tests submitted (10%)

Deliverables

All code (for all tests and for the software under test) will need to be submitted in a zipped file.

A separate pdf file must be provided that contains documentation regarding the process I will need to follow to run the tests and obtain results. It is likely you will implement a series of automated tests and so you should provide clear instructions on how I should execute the code provided in order to perform the tests. The main purpose of the documentation is to provide such execution instructions, although other, perhaps more helpful, ways of providing at least part of the instructions should be considered.

The code and documentation must be submitted to the Learn server by the date specified.

You must also return the ARM evaluation board and cable to me by the date specified.

David Mulvaney
February 2017