Title page

Theme:	Mechatronics
Project title:	Fountain for AAU Esbjerg
Group:	ED3-1-E12
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Period:	4/9 2012 - 20/12 2012
Major:	Electronik & Datateknik
Number of pages:	16
Copies:	3
Initial Problem:	Fountain for AAU Esbjerg

Synopsis: This project details the research and prototyping of a control system for a fountain. This includes software for controlling lights, pumps and valves. The system also accounts for weather effects by the use of three different sensors. Wind, temperature and light sensors monitor this. The conclusion is a partial working prototype with a sequencing UI.

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Preface

This project is written at Aalborg University Esbjerg by the group ED3-1-E12, 3rd semester students of the Electronic and Computer Engineering major. The project is called P3 and it is our fourth project during our education. The theme of the project is "Mechatronics". Mechatronics is defined as a multidisciplinary field of engineering combining several topics. Our focus for the project will be using micro controllers as the control unit for some piece(s) of hardware.

The micro controller used is the MSP430F149, the emulator is TI MSP430 USB-Debug-Interface MSP-FET403UIF, the code is compiled and developed on Code Composer v. 5.3.0 and written in C. The graphical sequence generator is compiled and developed on Visual Studio 2012 Update 1, and written in C♯ with .NET 4.5. All source code we write, will be supplied on a CD.

Our analysis of the problem including our solution is based on sources we found and researched ourselves. They are found by critically searching the web, and from books from our university library.

The project spans a period of 4 months (1 semester), from 4/9 2012 to 20/12 2012. The project has a maximum of 100 pages, including all appendixes.

Sources used throughout the report are placed at the end, with direct links to the used text piece, or in case of the source being a book, with the author, title, and if possible the page of the given information.

Sources for all the pictures used in this report will also be listed at the end with direct links, and in case of copyrighted material the authors acceptance to use the picture.

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