
HCL Compiled Language



DESIGN AND IMPLEMENTATION OF A
PROGRAMMING LANGUAGE

AALBORG UNIVERSITY

Group SW407F18

Title:

Software 4: "HCL Compiled Language"

Group SW407F18

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4

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Developing Applications - from users
to Data, Algorithms and Tests - and
back again

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15

Supervisor:

Ingo Vanduijn

Authors:

Casper Weiss Bang

Jonas Hansen

Nichlas Ørts Lisby

Nicolaj Casanova Abildgaard

Thomas Højriis Knudsen

Tobias Lambek Jacobsen

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STUDENT REPORT

Abstract:

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Preface

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Terms and abbreviations used in the report:

WW : Whole Word

Contents

1	Introduction	3
1.1	Preliminary interviews with the client	3
2	Analysis	4
2.1	Arduino and their usage in danish education	5
3	Theory	6
4	Implementation	7
5	Conclusion	8
5.1	Discussion	8
5.2	Conclusion	8
5.3	Future work	8
	Bibliography	9
I	Appendix	10

Introduction

1

1.1 Preliminary interviews with the client

Analysis 2

2.1 Arduino and their usage in danish education

During the third year of the HTX¹ programme students are required to take a course in a voluntary technical subject, which utilizes a project-based learning practice. There are a multiple possible courses but one of these regard electronics, where many schools choose to utilize the Arduino platform²[2].

This course, often called electronic³, aims to familiarize the students with electrical components and circuits as well as basic programming.[3] Arduino is an ideal platform for this, as it's possible connect I/O devices to the Arduino micro-controller, which in turn can be programmed to do simple tasks. This course is then used to both spike the interest of the student regarding engineering fields, such as programming or electronics.

Based on interviews done with students having this course, the language used for Arduino, C++, has a steep learning curve, for a initial programming language. The Arduino, from a hardware point of view, is quite intuitive and it's easy to play around with lights and similar things that give the student a visual feedback, however many students interviewed felt like the programming interface lacked these capabilities. [?]

¹Higher Technical Examination Programme, is a 3-year vocationally oriented general upper secondary programme which builds on the 10th-11th form of the Folkeskole[1]

²based on the fact that 4 of the students in this group studied at HTX in different parts of Denmark and all utilized the Arduino platform in this course

³The name varies between institutions

Theory 3

Implementation 4

Conclusion 5

5.1 Discussion

5.2 Conclusion

5.3 Future work

Bibliography

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Part I

Appendix