

# Learning report

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# Chapter 1

## Introduction

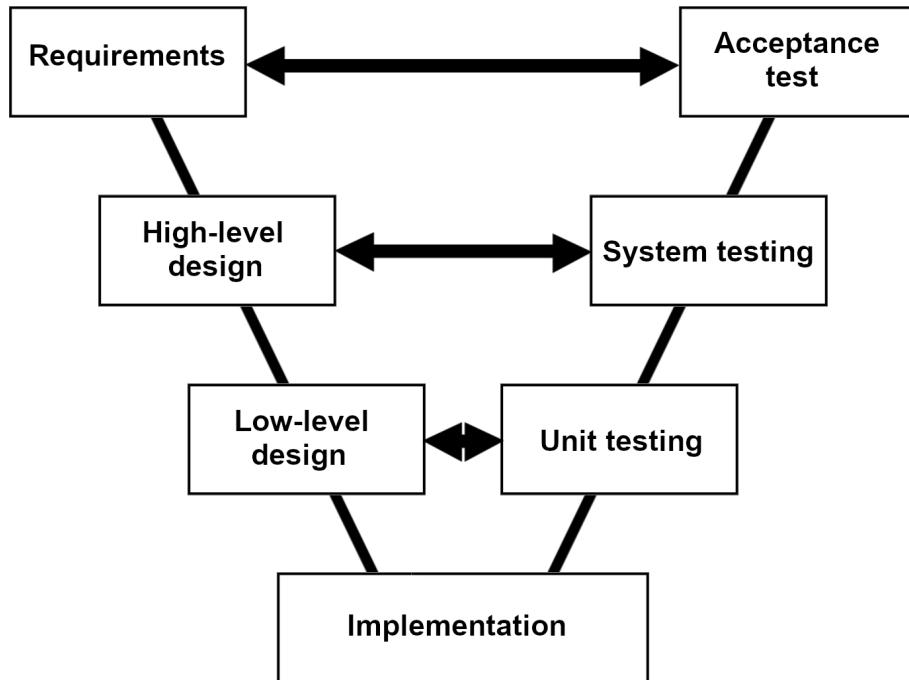


Figure 1.1: V-model

There are various reasons for using the V-model (Figure 1.1) for this project. My previous thesis was based on the waterfall model, but this lead to some outcomes which were not to my liking and which I believe the V-model addresses more than adequately.

As an extension of the waterfall methodology, the V-model offers a linear approach to problems, which suits hardware projects particularly well. Consequently, both models are reliant on well-established requirements and solid planning. Testing is also an important differentiating aspect of the models. Unlike more software-oriented methodologies, the two offer the more straightforward approach of sequential testing, instead of more convoluted alternatives like iterative testing.

While similar, there are differences that make the V-model more suitable for the project. One of its main advantages is the much more thorough testing system. In contrast with the waterfall model, which is entirely linear, the V-model provides verification and validation opportunities. The extra focus on testing is exactly what I previously found lacking in the waterfall model. Another benefit is the slightly less rigid structure of the methodology, as this gives more room for further refinement of the goals and the more involved participation of the client.

Although the V-model is better suited to the project, I found my implementation of it lacked in some regards. For example, it asks for well-defined goals from the start, however I could not define the specifics of the assignment early on, in part due to my limited amount of knowledge I had in the field of quantum physics.



## Chapter 2

# Self-evaluation

### 2.1 Analyze

#### 2.1.1 Expectation

#### 2.1.2 Evidence

#### 2.1.3 Evaluation

### 2.2 Design

#### 2.2.1 Expectation

#### 2.2.2 Evidence

#### 2.2.3 Evaluation

### 2.3 Realize

#### 2.3.1 Expectation

#### 2.3.2 Evidence

#### 2.3.3 Evaluation

### 2.4 Control/Verify

#### 2.4.1 Expectation

#### 2.4.2 Evidence

#### 2.4.3 Evaluation

### 2.5 Manage

#### 2.5.1 Expectation

#### 2.5.2 Evidence

#### 2.5.3 Evaluation

### 2.6 Advise

#### 2.6.1 Expectation

#### 2.6.2 Evidence

#### 2.6.3 Evaluation

### 2.7 Research

#### 2.7.1 Expectation

#### 2.7.2 Evidence

#### 2.7.3 Evaluation

## **Chapter 3**

### **Self-analysis**

## **Chapter 4**

# **Personal development plan**