

# CJ1 Report

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Web App that Generates Electric Circuit LaTeX Code

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## Web App that Generates Electric Circuit LaTeX Code

CJ1 Report based on the examination and study regulations  
for the Bachelor of Engineering degree programme

*Bachelor of Science Information Engineering*

at the Department of Information and Electrical Engineering  
of the Faculty of Engineering and Computer Science  
of the University of Applied Sciences Hamburg

Supervising examiner: Prof. Dr.-Ing. Martin Lapke

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**Title of Project**

Web App that Generates Electric Circuit LaTeX Code

**Keywords**

Life, Universe, Everything

**Abstract**

Arthur Dents travel to a new future ...

**Andre Alves, Divyesh Joshi, Myungjun Kim**

**Thema des Projekts**

Web-App, die LaTeX-Code für elektrische Schaltkreise generiert

**Stichworte**

Leben, Universum, Alles

**Kurzzusammenfassung**

Arthur Dents Reise in eine neue Zukunft ...

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# 1 Introduction

We forked the *draw.io* software by JGraph Ltd [? ].

## 1.1 Phases

This project execution was divided into three distinct phases:

1. **Phase 1:** Team of four.
2. **Phase 2:** Agile (Scrum) with three-member team.
3. **Phase 3:** Replace Agile with Project Management Lite [? ].

### 1.1.1 Phase 1

This project began around October 2021 with a team of four students. After beginning the project, Frances Joy Poblete disenrolled from HAW. Her disenrollment caused the team to reevaluate the scope of the project.

### 1.1.2 Phase 2

Follow Ms. Poblete's disenrollment, the remaining team members decided to adopt an Agile (Scrum) approach to project management.

### 1.1.3 Phase 3

## 2 Requirements Analysis

sadf

### 2.1 User Stories

There were two viable user stories for this project:

1. As a *researcher/student/educator/engineer*, I want to draw circuits for  $\text{\LaTeX}$ documents using a GUI so that I can draw the circuits more quickly than I can code them.
2. As a *researcher/student/educator/engineer*, I want to draw circuits for  $\text{\LaTeX}$ documents using a GUI so that I do not need to be a  $\text{\LaTeX}$ *expert* to draw circuits.

Since any person who is writing a  $\text{\LaTeX}$ document must have some level of coding knowledge, expecting users to slightly modify circuit code is a reasonable expectation. Therefore, the following user story was considered, but ultimately not included in the planning process:

- As a *researcher/student/educator/engineer*, I want to draw circuits for  $\text{\LaTeX}$ documents using a GUI so that I do not require any  $\text{\LaTeX}$ knowledge.

### 2.2 Other test

dssg

# **A Appendix: Project Charter**

## **Project Name**

Web App that Generates Electric Circuit LaTeX Code

## **Project Manager**

Andre Alves

## **Sponsor**

HAW Hamburg

## **Customer**

Prof. Dr.-Ing. Martin Lapke

## **Timeframe**

Start: End: 2022-01-01

## Known Critical Constraints

**Time**

**Money**

€400

**People**

## Reason for the Project

Drawing circuits with  $\text{\LaTeX}$  is difficult due to the coding requirements. It is much easier to draw those circuits in a GUI.

## Project Goal

Complete a program that allows users to obtain  $\text{\LaTeX}$  code that represents the circuit they draw using a GUI.

## What's Considered Done

- Users are able to draw basic circuits using a GUI.
- The app converts the circuit into  $\text{\LaTeX}$  code.

## Milestones/Deliverables

Milestone	Deliverable	Due Date
1	2	3



## Risks

What could go wrong	Chances of it happening	Impact if it does happen	What should be done about
1	2	3	4

## Known Critical Constraints

## B Appendix: Project Plan

Task	Assigned To	Start	End	Status
1	2	3	4	5

## Declaration

We declare that this CJ1 Project has been completed by ourselves independently without outside help and only the defined sources and study aids were used.

_____	_____	_____
City	Date	Signature

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City	Date	Signature

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City	Date	Signature