

Lab 1 Report

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Abstract

This report contains a description and analysis of the findings during Lab 1 of CprE 458, Real Time Systems.

1 Introduction

TODO

2 Part 1 - Code

2.1 High Performance Mode

TODO

2.2 Dynamic Frequency Scaling Mode I

TODO

2.3 Dynamic Frequency Scaling Mode II

TODO

2.4 Dynamic Frequency Scaling Mode Mixed

TODO

3 Part 2 - Data Analysis

3.1 Measuring energy consumption

TODO

3.2 Comparison and Analysis

TODO

4 Extra Part - Measuring Computation Time

TODO

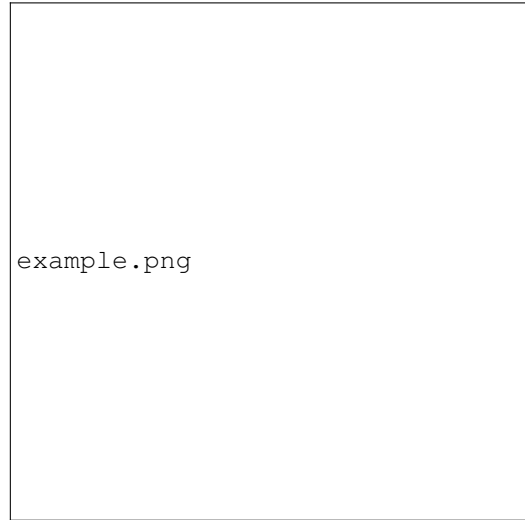


Figure 1: IR-Transmitter

$$\begin{aligned} \frac{V_{out} - V_-}{R2} - \frac{V_- - V_{in}}{R1} &= 0 \\ R1(V_{out} - V_-) &= R2(V_- - V_{in}) \\ V_{out} &= \frac{R1V_- + R2V_- - R2V_{in}}{R1} \\ V_- &= 0 \\ V_{out} &= \frac{-V_{in}R2}{R1} \\ \frac{V_{out}}{V_{in}} &= \frac{-R2}{R1} \end{aligned} \tag{1}$$

$$\frac{V_{out}}{V_{in}} = \frac{47000}{47} = 1000$$

Equation 1 demonstrates example equation.