Sleeping Cycle Stuff

EE4-67 Mobile Healthcare and Machine Learning Design Report

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*Abstract*— This is the first report for E3-19 Real Time Digital Signal Processing’s (2015-2016). The aim is to understand sine wave generation on hardware (lab 2).

# Introduction

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# Hypothesis

initial setting of 0x004f -> 32 bit.

# Related Work

## Initialising the Hardware

void init\_hardware**()** configures the hardware using

availability depends on the clock speed of the processor running the program.

## Look-up Table Function

A table that consists of the coefficients of a sine wave can be generated by a for loop. Then, to generate a variable sine wave, the program can iterate through this look-up table. To generate a sine w

# Discussion of Results

## Limitation of generated frequencies

The

# Conclusion

This task was completed successfully and improvements were made to improve the output of the generated sine wave.

Further improvements can include pre-computing the lookup table instead of generating it at runtime, and using two lookup tables to further improve the accuracy of the sine wave [2].

# References