

Report from Lab Assignment #1

TDT4258 Energy Efficient Computer Systems

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Abstract

This report presents a solution to assignment #1 of TDT4258 at NTNU, spring 2013. In the assignment, an Atmel STK1000 development board was programmed to display a moveable LED "paddle" using AVR32 assembly and the GNU toolchain. Interrupts were used rather than busy-waiting to achieve better energy efficiency. The goal of this assignment was to introduce students to programming microcontrollers in an energy-efficient fashion, as well as introducing students to the GNU toolchain, and specifically GNU Makefiles and using GDB as a debugging tool.