

CECS 347 Lab 1 Software PWM Controlled LEDs

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Preparation:

Review three major topics learned in CECS346: GPIO, Interrupts, SysTick timer and Lecture 2 First approach to generate PWM: timer approach. You only need a TM4C123 LaunchPad for this lab.

Startup Project: Labware/Lab2_HelloLaunchPad

Reference Projects: TExaSware/C12_DCMotor

Purpose:

Review GPIO, Interrupts, SysTick timer and learn how to use software PWM to control the brightness of an LED.

System Requirements:

Use the two switches on LaunchPad to control the brightness of one of the three LEDs on LaunchPad: switch 1 increase the brightness of the chosen light; switch 2 decrease the brightness of the chosen light.

You are required to rename the startup project to CECS347Lab1 and make other changes accordingly to creating a new working project. Please check the steps in the following video located in dropbox Lab1 folder: NewProjectBasedOnOld.

Components needed:

A LaunchPad.

Deliverable:

- 1) Demonstrate your lab on board
- 2) Submit all your software source code to beachboard dropbox.