ECE 3720

Microcomputer Interfacing Laboratory

Section [#]

[Name]

Date Performed: Month / Day / 2019

Lab [#]

ABSTRACT:

A lab designed to show the methods of programming, compiling, and running code for the PIC32MX150F128D microcontroller using the MPLAB X IDE software and an NI ELVIS II board.

**INTRODUCTION:**

From rubric: “Provides background and purpose to give the reader an accurate idea of the scope of the experiment”. This is a good place to introduce and briefly describe the devices and peripherals used in the lab, as well as the goal.

**EXPERIMENTAL PROCEDURES:**

This is the section most relevant to this lab. According to the rubric, it should give a “Detailed account of the experiment, complete enough that the reader could perform the experiment without any ambiguity”. You should cover the following points, but in paragraph form, rather than bullets.

* HOW you set up the circuit and WHY you did it that way
  + Were pins chosen for their connected peripherals, 5V tolerance, analog capability, etc.?
  + How were other devices wired to receive power and provide inputs/outputs for the microcontroller?
* HOW you wrote your program and WHY you did it that way
  + What registers did you set and what did they do?
  + Did you write or use any functions besides main?
  + Walk the reader through the logic of the program.

**RESULTS and DISCUSSION:**

Again, these are general points to cover, but in paragraph form.

* What was the final observed behavior of the MC/circuit?
* What problems did you encounter and how did you solve them/think they might be solved?
* How were this week’s new devices/methods utilized, and how might they be useful in other projects or applications?

**CONCLUSION:**

From rubric: “Brief objective summary of conclusions from the experiment”

**FIGURES AND TABLES:**

[Insert circuit here]

**Figure 1: Wiring for lab [#] (Pin connections described in experimental procedures)**

**CODE:**

[Insert code here]