To: Dr. Mark Yoder

From: Michael McDonald

Subject: Week 3 (I^{2}C, PWM, Device Tree Overlays) Memo

Date: September 23, 2013

1   Exercise Summary

I have completed Homework 3.

Objective	Exercise	Status	Notes
Device Tree Overlays	Exercise 11a	Completed	These pins seem to work, but I'm worried that the pins we need to use for our homework won't since they aren't free.
I^{2}C Communication	Exercise 12	Completed	The only thing I noticed is that myi2cget requires the decimal versions of addresses, rather than hex.
PWM Control	Exercise 13	Completed	A 1MHz signal is very crisp, but the 10MHz signal was exactly as described (9MHz and not clean at all). There's also a pretty impressive (1V) overshoot above 3.3V for the faster signals.

The main points I took away from these exercises were the following:

- The on-board hardware is awesome (both I^{2}C and PWM). It makes life so much easier, and decreases development time (and reduces frustration). That being said, it's much harder to understand how all of the layers interact because there are so many more layers between the software and the hardware.

- There's a difference between decimal and hexidecimal, and it can come around to bite you when doing I^{2}C if you aren't careful about which functions take what as an argument.