CAST CPET-563 Embedded Systems Design II **Dr. Kaputa**
Spring 2017
Lab 3

Student Name: _____

Introduction:

You are to create PWM generation solution where one can enter period, duty cycle, and enable in an embedded GUI and see the corresponding waveforms on the oscilloscope. GUI can be done in any language as long as the functionality is met.

Requirements:

- GUI shall reside on the Snickerdoodle and allow the user to enter PWM period, duty cycle, and enable
- A PWM waveform corresponding to the period and duty cycle shall appear on the oscilloscope

Resources:

- Snickerdoodle constraints file

  https://github.com/krtkl/snickerdoodle-examples/tree/master/snickerdoodle_GPIO/snickerdoodle_GPIO.srcs/constrs_1/new

Lab Submission:

1. Print out this lab with your name on the front and attach all code. Scope screenshots nice but not required.
2. Submit all code by 4:40 pm on March 20th at: https://www.dropbox.com/request/i2KZ8ntGRMlhuCKCoG9i

Grading:

	Score	Pts
Code No tabs please. Proper spacing and formatting. Adequate variable names. Consistency.		/2
Vivado Block Diagram Show associated block diagram in Vivado		/2
Demonstration To be performed within lab week. Can show after due date with time stamped code.		/6
Extra Credit: Web based GUI accessed via IP address		/1
Final Grade		/10