Exercise Checklist

You will be experimenting with various aspects of PSoC by completing the labs below. **Understanding at least the first section of each lab is critical for completing the team project so it is recommended that you do the labs in the order shown in the table**. To get credit for each exercise, demonstrate the solution to an instructor.

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	L4	Use a switch to control an LED	6.10
	L5	Control LED intensity using a PWM	6.11
	L6	Play sounds using a buzzer	6.12
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	L8	Use a Status Register	6.14
	L9	Using I2C and the Bridge Control Panel	6.15
	L10	Control an LED using a CapSense Button	6.21
	L11	Use an Interrupt to Blink an LED	6.22
	L12	Use the Debugger to View Firmware	6.31
	L12.2	Use the Debugger to Modify Values	6.31
	L1.2	Add a hardware timer to delay LCD update rate	6.3
	L2.2	Blink the firmware LED faster/slower	6.8
	L2.3	Blink 2 LEDs at different rates	6.8
	L2.4	Alter the “duty cycle” (have the LED on longer than it is off but blink the same frequency)	6.8
	L3.2	Blink an LED using a clock tied directly to a pin	6.9
	L3.3	Blink 2 LEDs at different rates	6.9
	L4.2	Have the LED turn on when the switch is pressed and turn off when the switch is not pressed	6.10
	L4.3	Have two LEDs turn on/off opposite from each other when the switch is pressed	6.10
	L4.4	Have the LED blink rate change when the switch Is pushed	6.10
	L5.2	View the output of the clock and PWM on an oscilloscope	6.11
	L5.3	Set the PWM duty cycle using a POT (remember the ADC project)	6.11
	L5.4	Display the intensity (PMW duty cycle) on an LCD as a bar graph	6.11
	L6.2	Play a note when a mechanical button is pressed	6.12
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	L6.4	Play two notes	6.12
	L6.5	Use a CapSense slider to play a scale	6.12
	L6.6	Play a song (Twinkle, twinkle little star)	6.12
	L7.2	Add LEDs that turn on/off for the different sounds	6.13
	L8.2	Invert button values in firmware	6.14
	L8.3	Invert button values in hardware	6.14
	L10.2	Use a CapSense slider to control LED intensity	6.21
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