

# ELEC 4601 Lab 4 Marking Rubric

Section	Question	Marks
<b>Part A</b> Total Marks: 7	Checkout mark	1
	Print and comment the code you added. Fully describe what each line is doing and explain what methods, variables, and operators are being used (and why)	3
	Why do we set the state of the LEDs to “0” to turn them on? On a hardware level, what does that tell us about the microcontroller and the DigitalOut function?	1
	This exercise provides essentially the same final functionality as Lab 3 (ignoring that the LEDs toggle in that lab instead). Compare the two programs by listing the advantage and <b>disadvantage</b> for each	1
	List three interfaces in mbed.h that aren’t used in this lab and explain what they are used for	1
<b>Part B</b> Total Marks: 8	Checkout mark	1
	Print and comment the code you added. Fully describe what each line is doing and explain what methods, variables, and operators are being used (and why)	3
	What exactly is a “Ticker?”	1
	What are the advantages of using C++ for coding embedded processors?	1
	This application shows how useful the GPIO ports are. Explain the different IO types you defined in this program and why they are needed for each specific input and output you used	1
	Using the included notes, explain the differences between the mbed API and CMSIS. How do they interface to each other (how does mbed access CMSIS)?	1
<b>Presentation</b> Total Marks: 5	Spelling and grammar. This is always important for engineers!	1
	Organization. Follow the Lab Report Format document very closely. Do not forget to submit your report as a .pdf file	4
<b>Total</b>		20