## **Lab 3 Grade Guideline (25 points)**

## Lab Results

- Video or instructor inspection of LED turning on in response to a push button press. (5 points)
- Copy of code used to toggle the state of the LED in response to a push button press. (5 points)
- Video or instructor inspection of LED toggle on/off in response to a push button press.
  (5 points)

## Questions and Discussion

- 1) Refer to Chapter 14 of your Embedded Systems textbook and define the term *memory-mapped I/O*. You may also use online resources. (2 points)
- 2) Refer to the STM32L476VGT6 Reference Manual located in the Resources subfolder of the Laboratories folder in D2L. Within the manual, locate the memory map for the MCU and state the base address of GPIO port A and Port E. (2 points)
- 3) Refer to the Board pinout on the DISCO-L476VG manual/schematic, and state what bit location on the GPIO corresponds to LED1 output, and what bit location on GPIO corresponds to USER BUTTON input. (2 points)
- 4) State what you have learned from the experiment. (4 points)

No formal lab report is needed for Lab 3.