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|  | LAB #5  Advanced EMoRo  Motors, Turns, and Collision Avoidance |  |

The only resources you may use in completing this lab are (a) your notes and code from previous TOOP classes, (b) the cplusplus.com website, and (c) the EMoRo 2560 Library PDF. **It is individual effort**. It is to be completed in person using Sloeber. This lab is worth 50 points and you will have 75 minutes to complete it. You will submit your completed project to a **D2L dropbox.**

1. You are to write a program with two distinct functionalities
   1. In setup…
      1. Initialize or attach your EMoRo robot, the LCD, both servo motors, the ultrasonic sensor, and the gyroscope.
   2. Write a function to handle the buttons.
      1. If button one (SW\_1) is pressed, turn clockwise 90 degrees. Print “Turning Right” to the LCD.
      2. If button two (SW\_2) is pressed, turn counterclockwise 90 degrees. Print “Turning Left” to the LCD. You may need to delay half a second after beginning your turn!
      3. If button three (SW\_3) is pressed, travel forward until the robot is within 10 centimeters of the nearest object. Print “Moving Forward” to the LCD
   3. In loop…
      1. Call your function from §1.2.