Lab Exercise #7

Objectives

- Assemble hardware, gather together software functions required for the class project, test motors and determine their characteristics.

References

- [1] NXP Kinetis KL25 processor sub-family data sheet (pdf) on class web page.
- [2] NXP Kinetis KL25 processor sub-family reference manual (pdf) on class web page.
- LIS2MDL Magnetometer data sheet (pdf) on class web page

Lab 7 Problem Statement

Design Flow

1) Create a new folder and project for the project
2) Copy files from prior project(s), as needed, to the new folder
3) Write a function to test motor operation. Pulse period should be 20ms and initial pulse length about 1.5ms (1500us).
4) Determine for each motor the pulse length for zero rotation and also the maximum and minimum pulse length that appears to increase rotation speed in the respective direction.
5) Document in the comment header of your main.c file the results of item 4 above.

To Turn In

- At the end of lab today submit your main.c file and also zip up your whole project and submit it to D2L.