ECE Senior Design Weekly Report

Engineer’s Name: Mark Luna Date: 2/16/17

Team Name: The Globetrotters Lab Section: 4, Thursday 12:30 PM

Week’s Task: To become familiar with QGIS, set up a desktop Linux environment, and research potential microcontrollers for use in the project.

Results:

* Since Raspbian OS on the Raspberry Pi is based on Debian, the Ubuntu flavor of Linux will be a good choice to test out all the features of QGIS on a more accessible desktop environment before handing it off to the Raspberry Pi later on for integration.
* QGIS documentation is being looked at to get familiar with it, as well as some intros to Python since it can be used for back-end processing of QGIS (i.e. PyQGIS).
* An existing MagLev project uses an 8-bit 8-pin PIC12F1571 with magnets and Hall Effect sensors, so this microcontroller could be used as a basis for our implementation depending on our specific needs and complexity of the design. Overall, a PIC microcontroller seems like the more feasible choice for the MagLev and stabilization portion of the project.