

Labview Assignment #2, due before Friday October 6<sup>th</sup> at 3:00pm. Simply demonstrate your programs working and be prepared to show me how you built parts of your Labview program. Grading for this assignment is simply full credit if you did the assignment and no credit if you did not complete the assignment. Make sure to ask Tyler or me questions if you get stuck.

I would like you to go through the “Basics of Control Design and Simulation” tutorial. It can be found at <http://www.ni.com/white-paper/10685/en/>. I also saved a pdf of this same tutorial at <http://coecsl.ece.illinois.edu/me461/labs/NI-Tutorial-BasicsofCDS.pdf>. When you are done with this tutorial you will have saved three files: “My Controls Example VI.vi”, “My Controls Example With Math Script VI.vi” and “My Control and Simulation Example VI.vi” Demo all three of these VIs working for your check off.

The last VI you build “My Control and Simulation Example VI.vi” uses the *Control and Simulation Loop*. You should be familiar with MathWorks Simulink from previous classes like ME340 and ME360. You can think of the blocks you place inside the *Control and Simulation Loop* the same as blocks in a Simulink simulation. We are going to be using the *Control and Simulation Loop* to implement controllers in Labs 7, 8 and 9.