

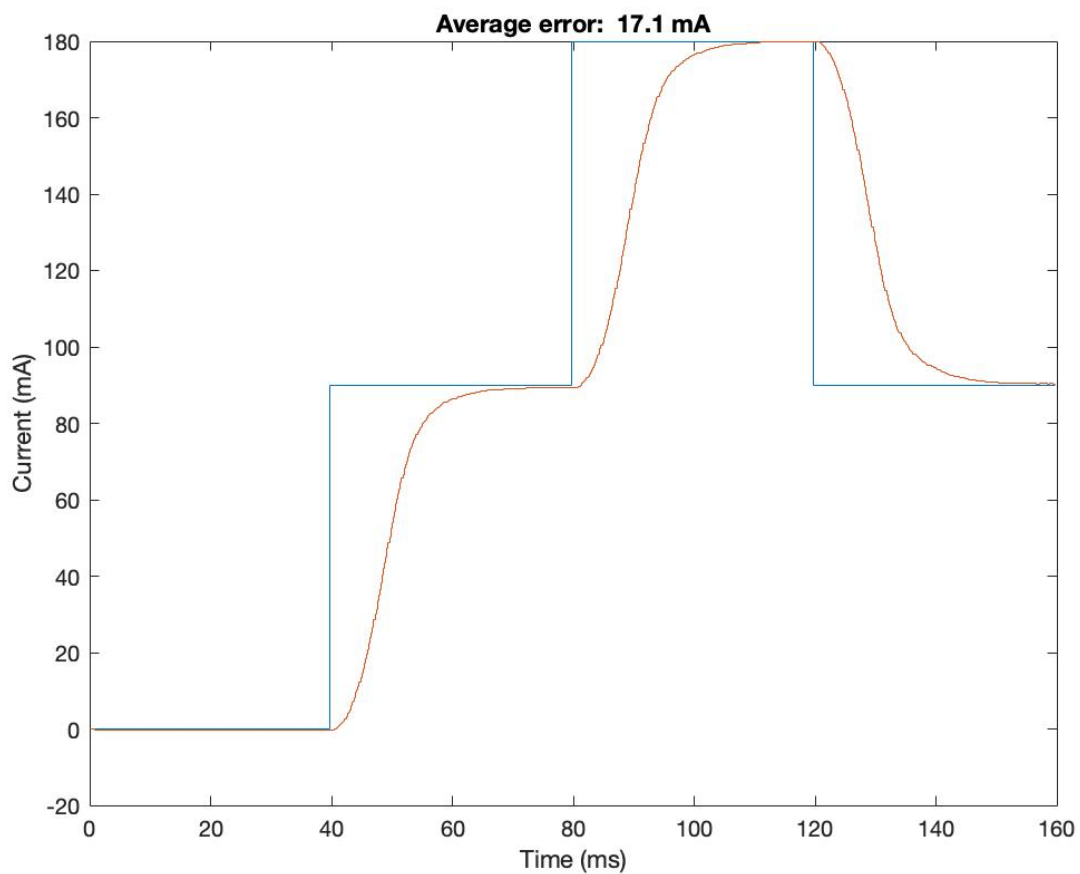
Lance Go  
ME 333  
March 30, 2022

### Homework #10

**#5) Turn in your best plots of following the step and cubic trajectories in Figure 28.5 with the load attached. Indicate the control gains you used, as well as their units.**

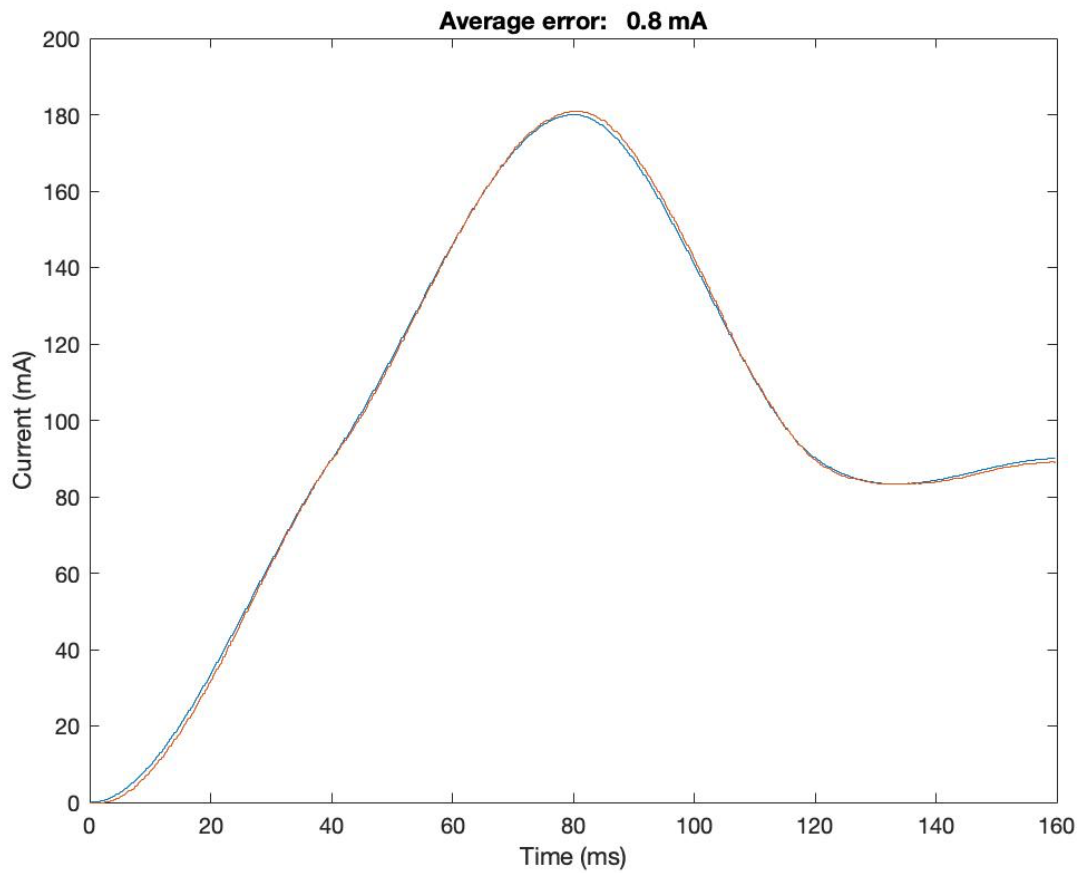
*All the Y-axis for both of the graphs should be in degrees, as well as the average error. It is not measuring current in mA.*

Step trajectory, best attempt:



	Current PI Control (mA)	Position PID Control (degrees)
Proportional Gain	0.7	50
Integral Gain	1.1	0.0055
Derivative Gain	N/A	1200

Cubic trajectory, best attempt:



	Current PI Control (mA)	Position PID Control (degrees)
Proportional Gain	0.7	40
Integral Gain	1.1	0.005
Derivative Gain	N/A	1200

There is too much code to upload to canvas, so I am also adding a link to the GitHub page here. It is public now, but I will immediately make it private as soon as the assignment is graded.

Link [here](#)