Nickalus Davis

NUID: 14025649

CSE 155N – 210

Final Project – Kinematics Calculator

My idea of my final project was to create a multi menu system for calculating kinematic equations for physics. My idea related to my major of mechanical engineering because in my major I have to deal with a lot physics, and I thought what else better than to automate my homework. The LA that gave me permission for my project was Ryan Martz.

I defiantly had my fair share of difficulties throughout the coding process of my project that’s for sure! My first difficulty was to refresh myself on uicontrols especially since I didn’t do too well on lab 10 where the main focus of uicontrols was taught. The main thing that helped me with this difficulty was the Matlab website with definitions and examples of the function of uicontrol. I believe my biggest difficulty was how to implement the popupmenu uicontrol and how to read the values from the popupmenu. I can’t tell how much research I had to do in order to finally figure out how to properly position the popupmenu, and how to read in the selection from the popupmenu. At first I tried to use if and else statements for testing the selection of the popupmenu, but I found out that a switch statement with cases works far better.

Another major difficulty I had was how to read in the inputs to the edit boxes since the user would be inputting numeric values, but the edit boxes only read in character strings. I did a little research on the Matlab website and found out a way of reading in the inputs and converting the inputs into double values. The way I did this was by using the get function while assigning the input as a string then I converted the string to a double by using the function str2double. To be honest I felt very big brain after figuring that out, and I took a moment to yell out that “I’m a F-ing genius” too my roommate.

I do wish that I would’ve taken more time to spice up my menu and to add more calculations with different inputs. This final project was my favorite thing to work on during this whole course mainly because it was something I thought of and wanted to design. Once I finally figured out my program and got it work I felt extremely accomplished. I also feel that after this course is over I will continue to use Matlab in the future for the sole purpose of how it can bring a problem solving method to advanced mathematics. Along with that, in my career path in engineering I will certainly use some sort of GUI and there’s no better way of learning how to use different GUI’s then building your own.