

Yida Jason Jiang

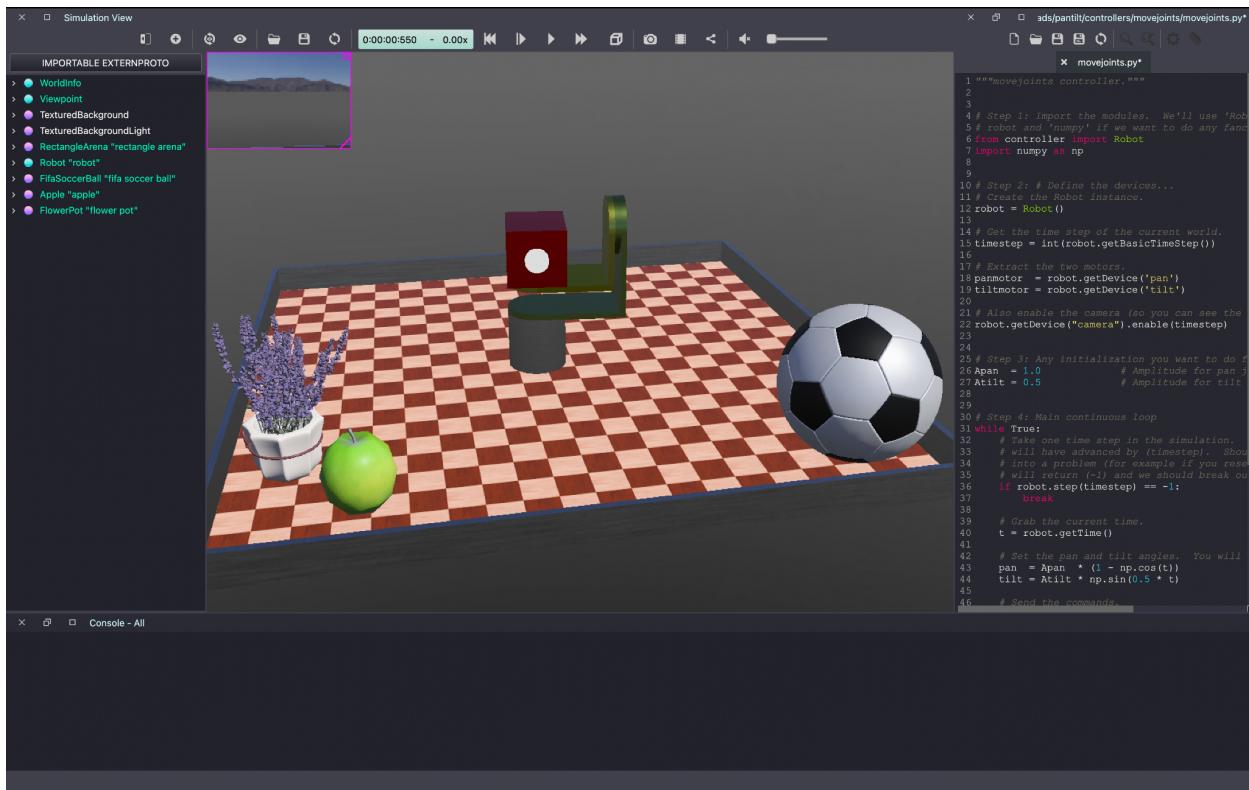
ME - 008 - Wed

Gunter Niemeyer

Week 2 Oct 11, 2022

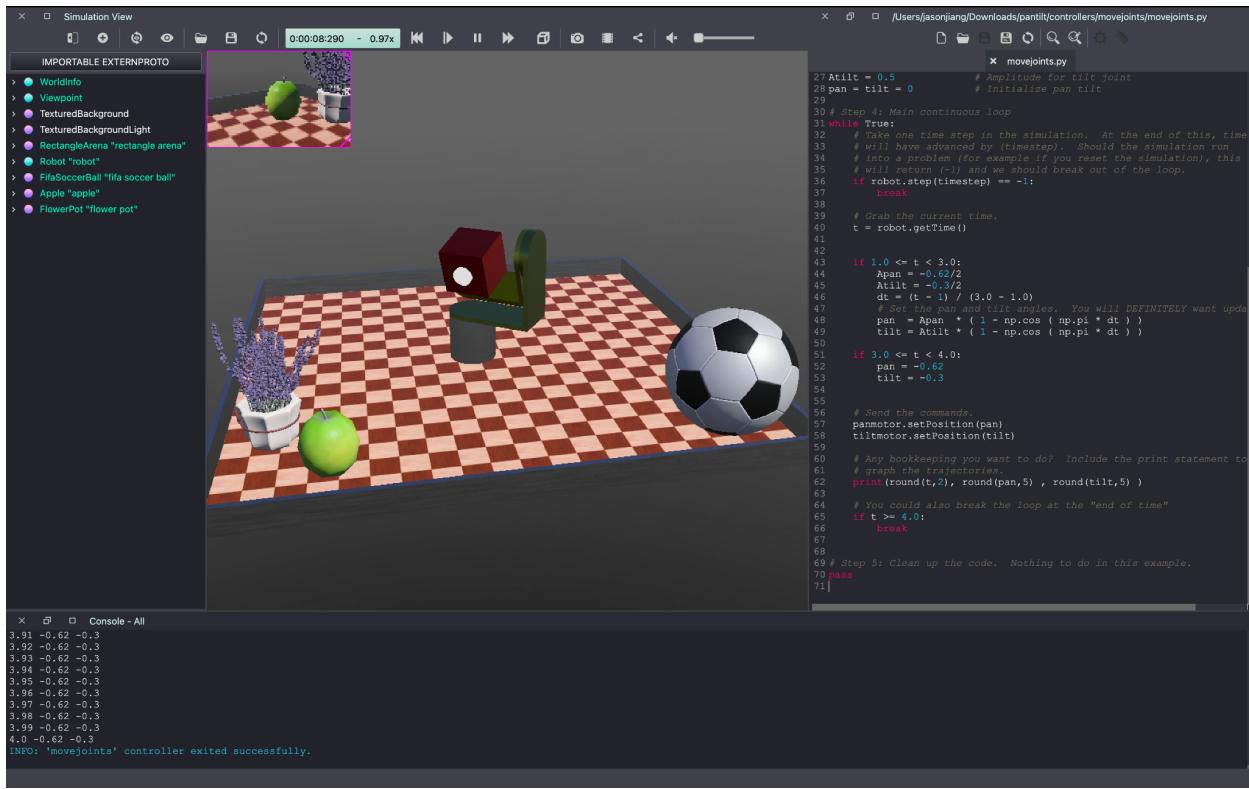
I. Problem 1 (Download/Run Gimbal Simulation World):

- A. Problem: Windows un-resetable bug, switched to mac, difficult manipulating two devices
- B. Learning: Find a fix for windows on Piazza, might do it next week

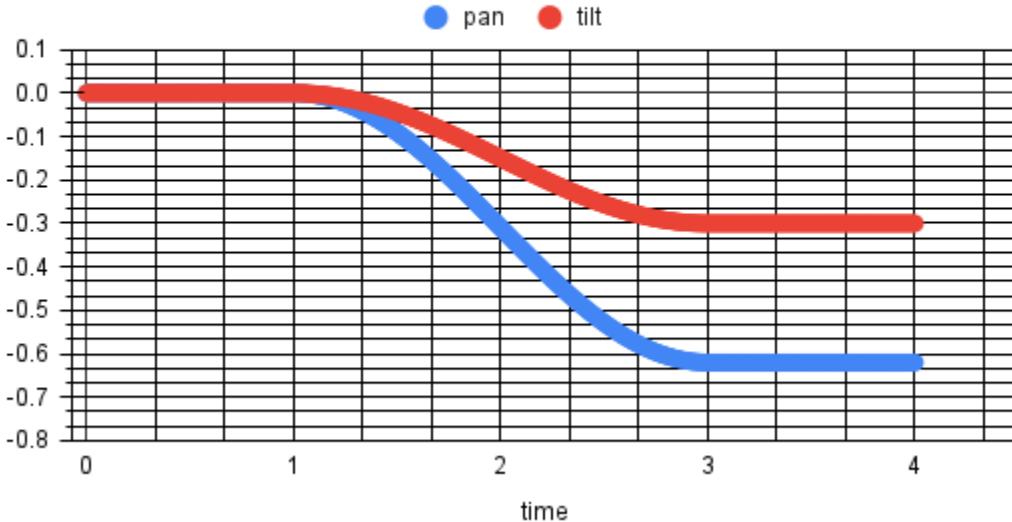


II. Problem 2 (First Movement and Plotting):

- A. Problem: None
- B. Code: [Problem Two Code](#)
- C. Learning: It is very simple, just test with pan tilt values, and plug them into values of the formula and run



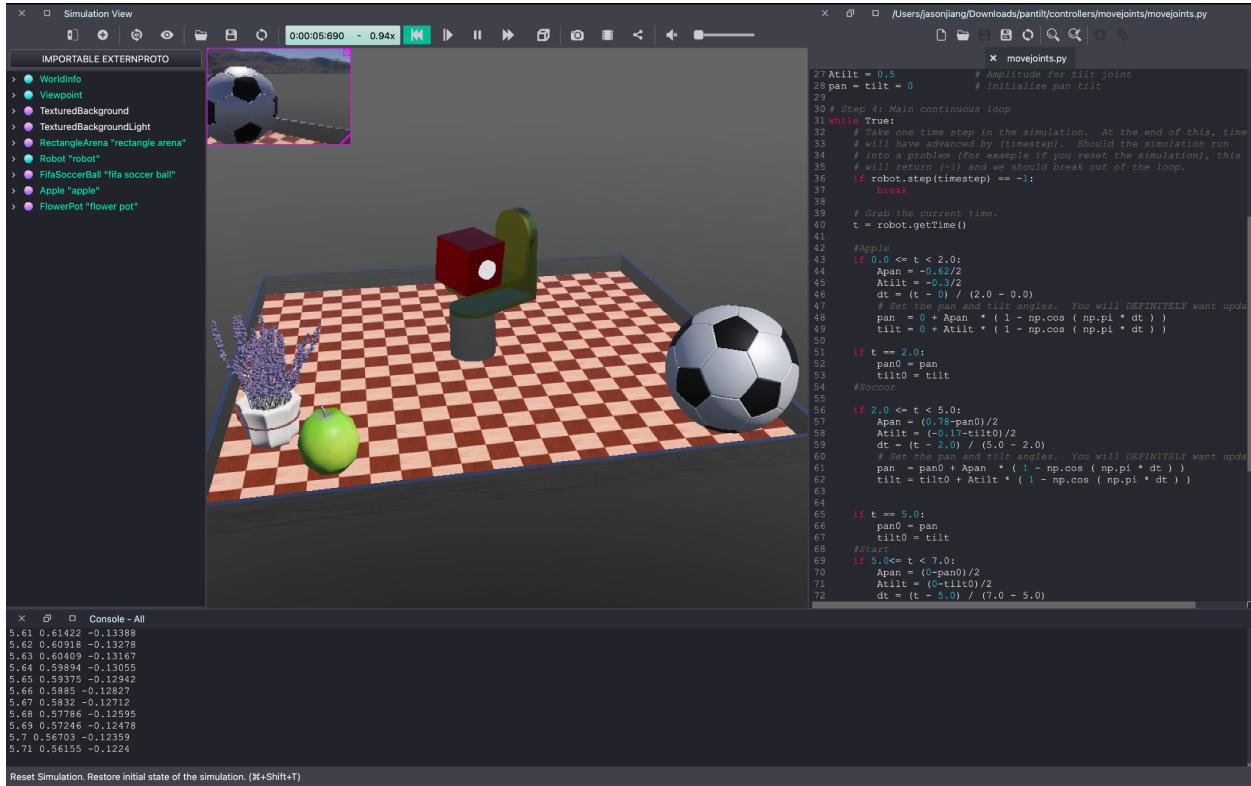
Problem Two First Movement and Plotting with Simple Sinusoidal Movement



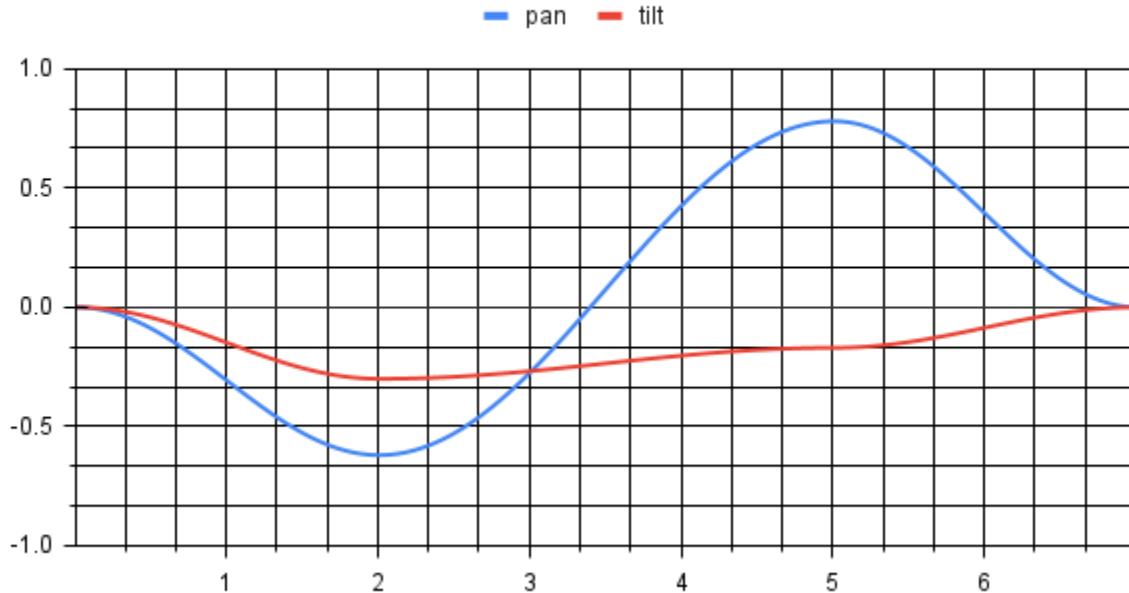
III. Problem 3 (Multiple Segments):

- A. Problem: None
- B. Code: [Problem Three Code](#)

C. Learning: It's also very simple, just calibrate the pan tilt value, calculate different points and plug in the correct number.



Problem Three Multiple Segments Sinusoidal Movement

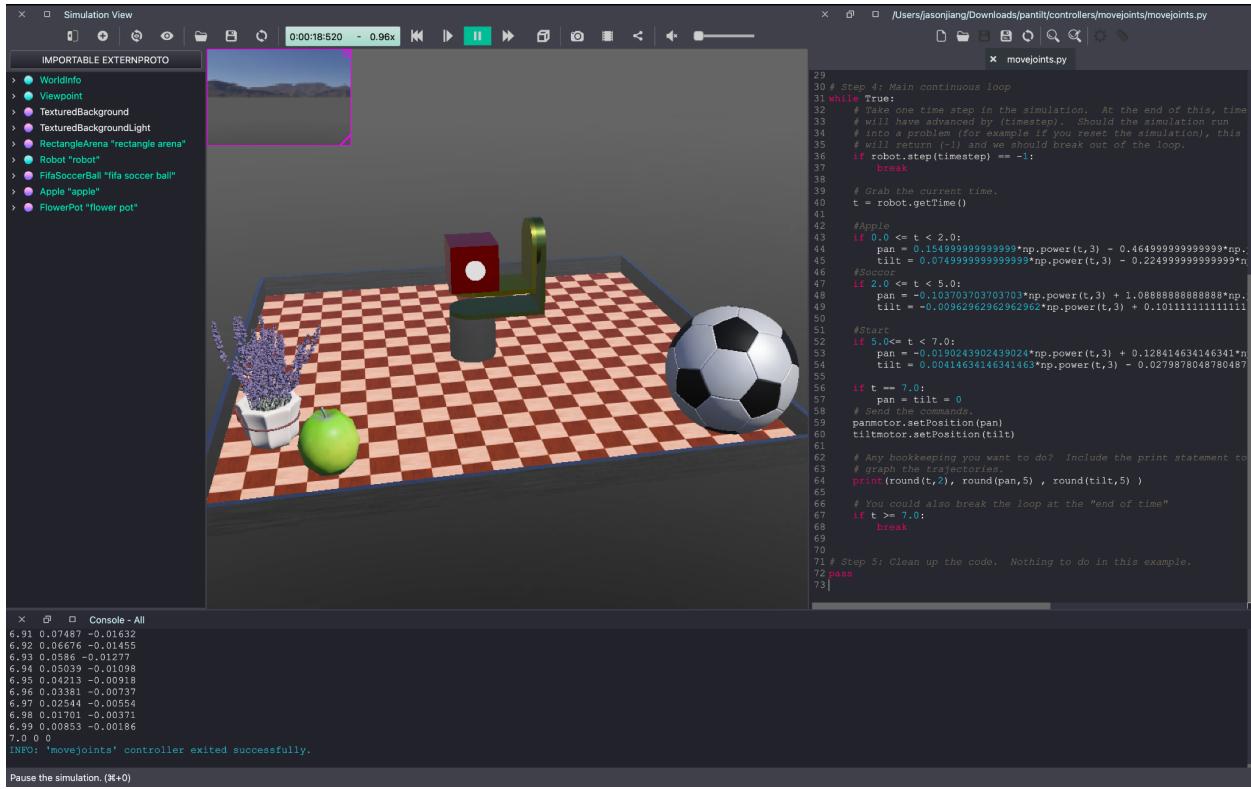


IV. Problem 4 (Cubic Splines):

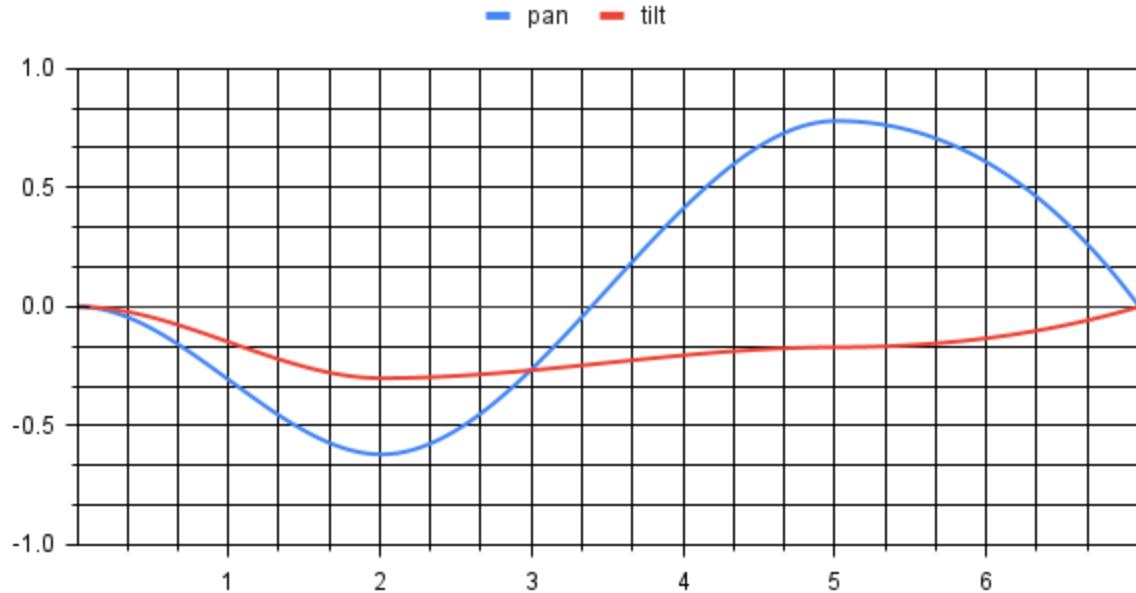
- A. Problem: Forgot how to do cubic spline, go search on the internet for answers.
Also found a rref calculator online, used it for calculating numbers for angle formula.

B. Code: [Problem Four Code](#)

- C. Learning: Reviewed how to do cubic spline, rref matrix.

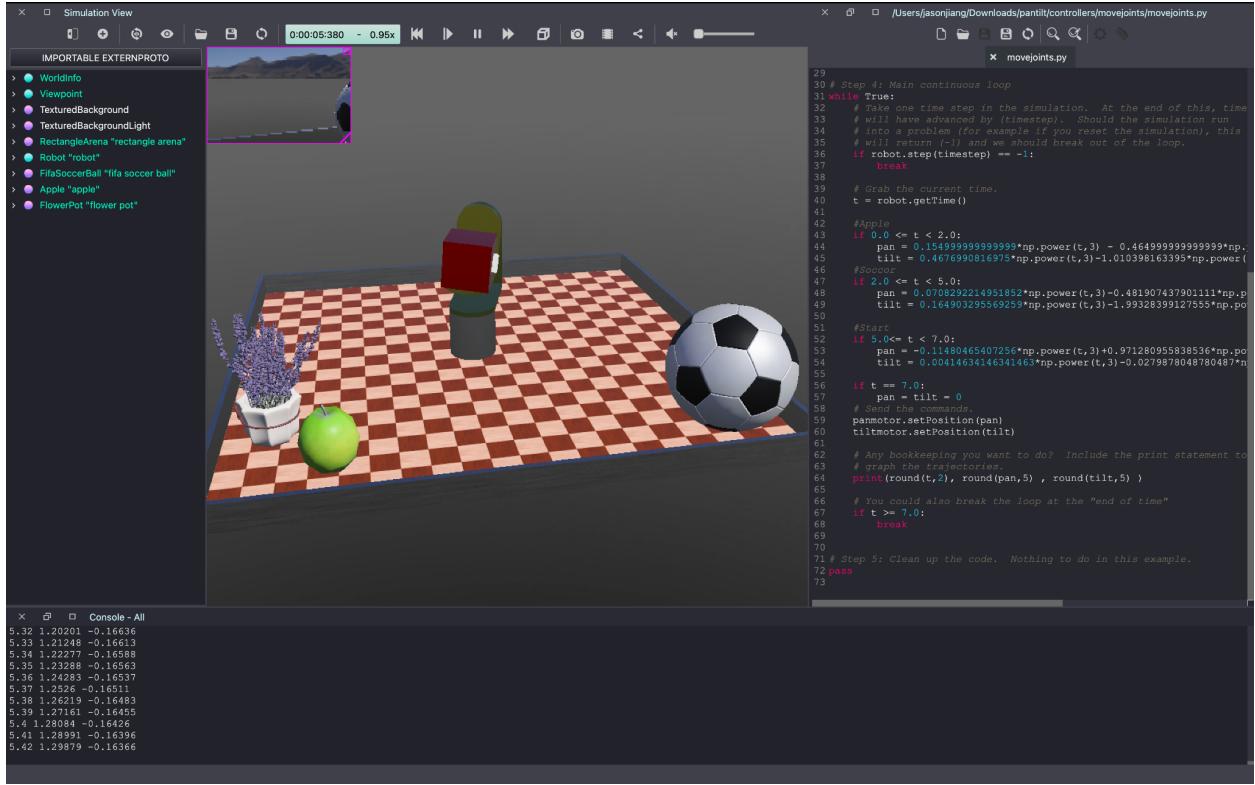


Problem Four Cubic Spline Interpolation

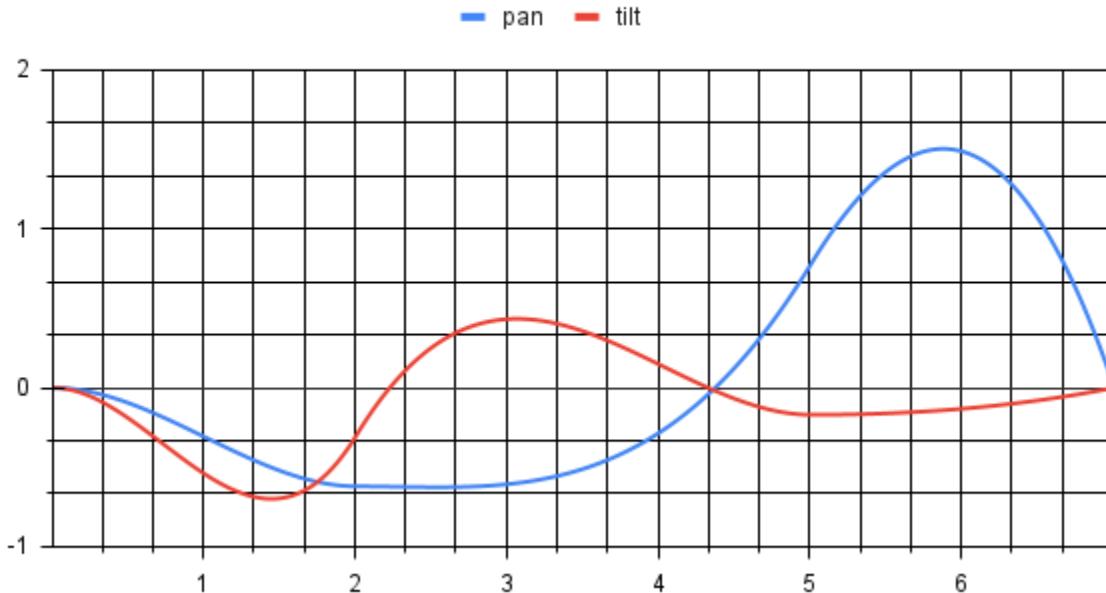


V. Problem 5 (Concatenating without Stops):

- A. Problem: Didn't know what it means before visiting Piazza, later realized the value is for plug into the Cubic spline matrix as Angle Velocity Value. When calculating rref for the matrices, copying numbers back and forth is horrible job on eye.
- B. Code: [Problem Five Code](#)
- C. Learning: Easier than problem 4



Problem Five Concatenating Cubic Spline without Stops



VI. Problem 6 and Later

A. No time left