

Forward kinematics

UI: press F to enter forward Kinematics mode, and G to exit. While in FK mode, click the joint you would like to rotate (you may need to click and drag within the circle of the joint to select it) then press the up and down arrows to rotate the joint.

In this section I used the suggestions from piazza, and I worked out a solution what just involved changing the rotation angles and using calcpos.

Inverse Kinematics

This section is a little buggy, I consulted this source:

<https://medium.com/unity3danimation/overview-of-jacobian-ik-a33939639ab2>

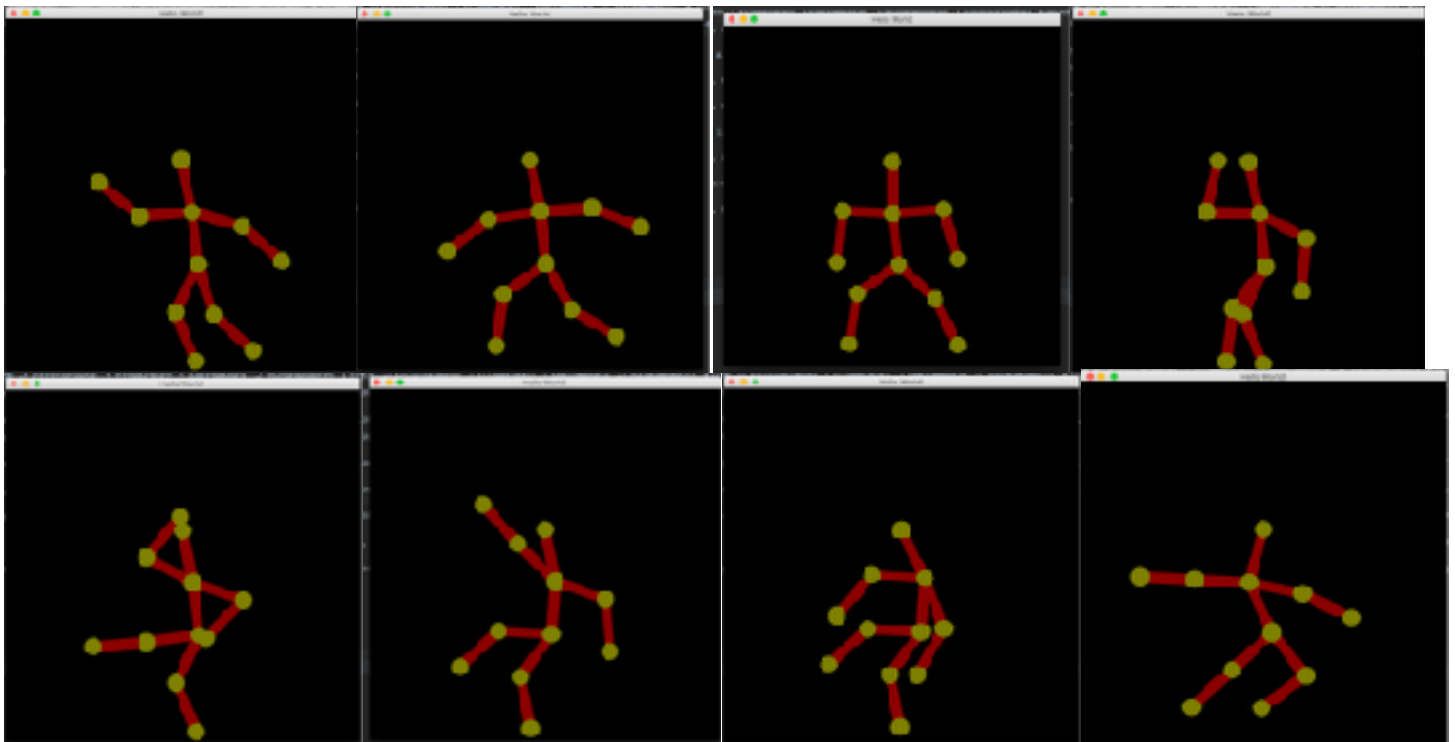
I tried to keep the math and stuff as true to the class/ textbook as possible.

Cubic Bezier

I had this working at some point and now its broken again. The second source below is what I tried to use to get a correct result but right now the animations are just not even close to correct. Below are the keyframes I intended to use for the complex animation, in bodyAnim.xml

https://rosettacode.org/wiki/Map_range

<https://pomax.github.io/bezierinfo/>



Included in this file are 3 videos: FK, IK, and a demonstration of the animation that is broken.