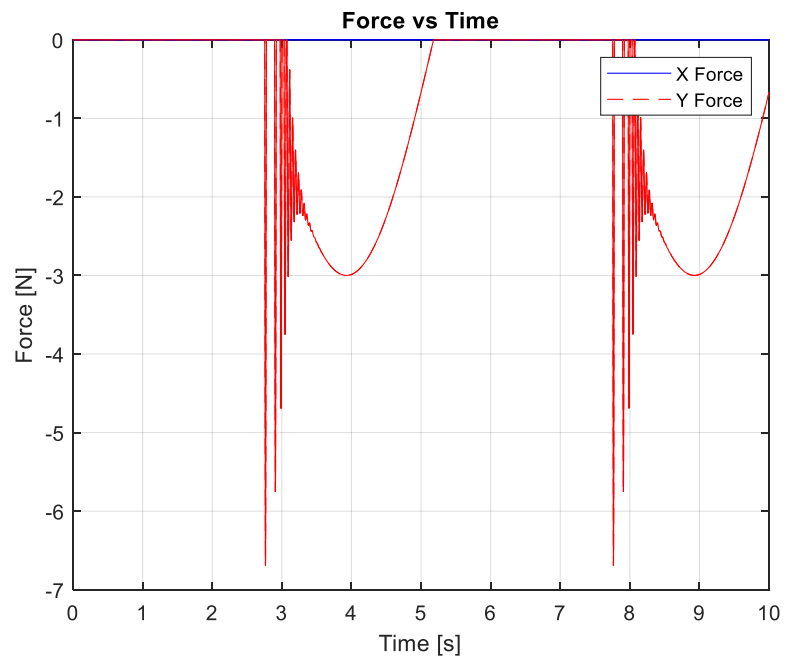
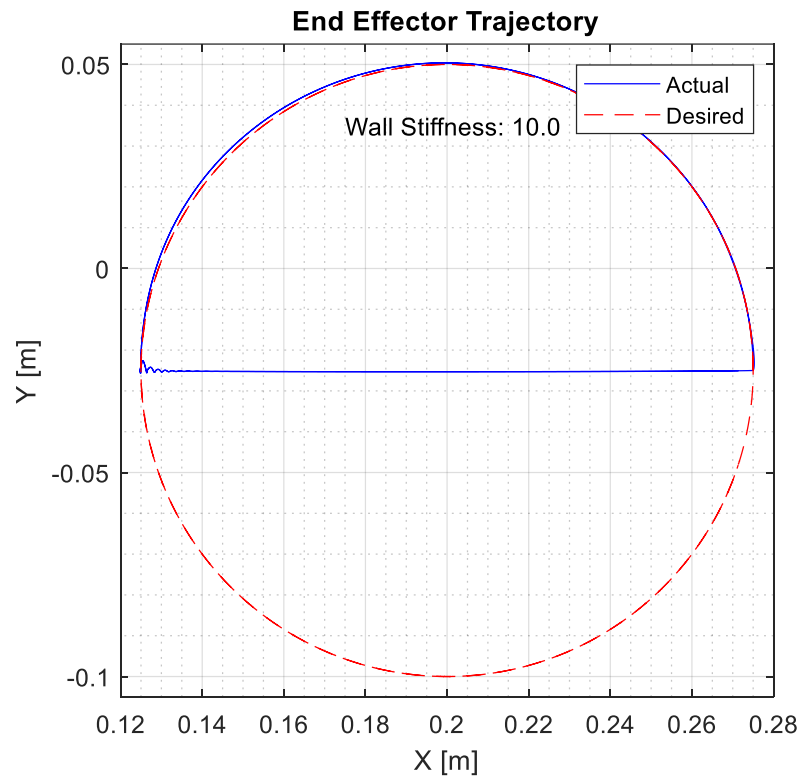


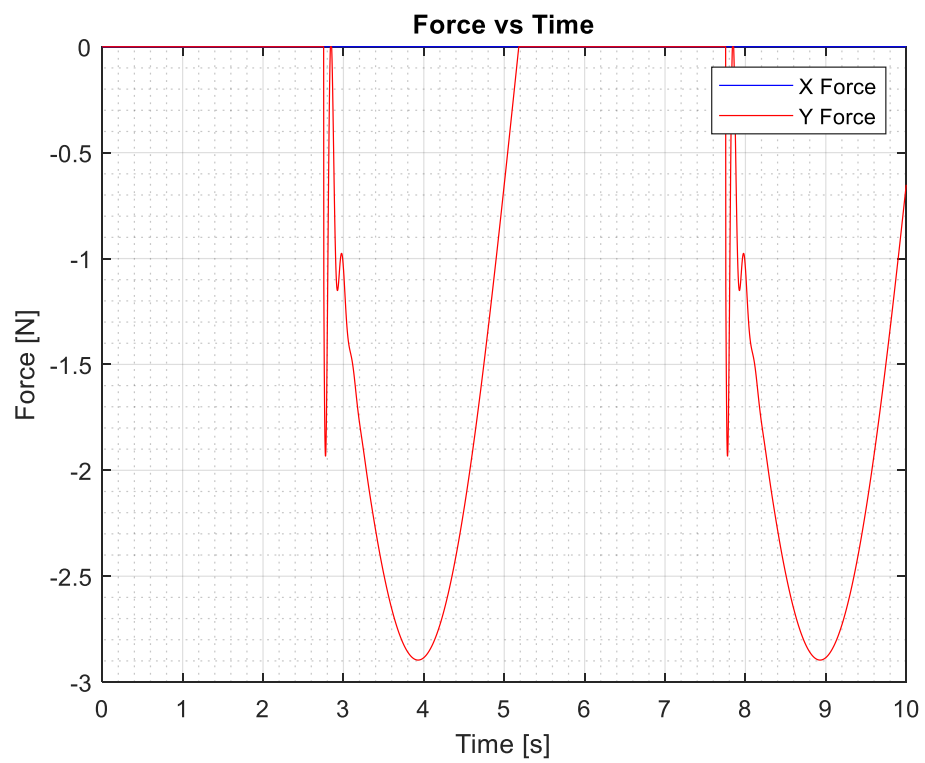
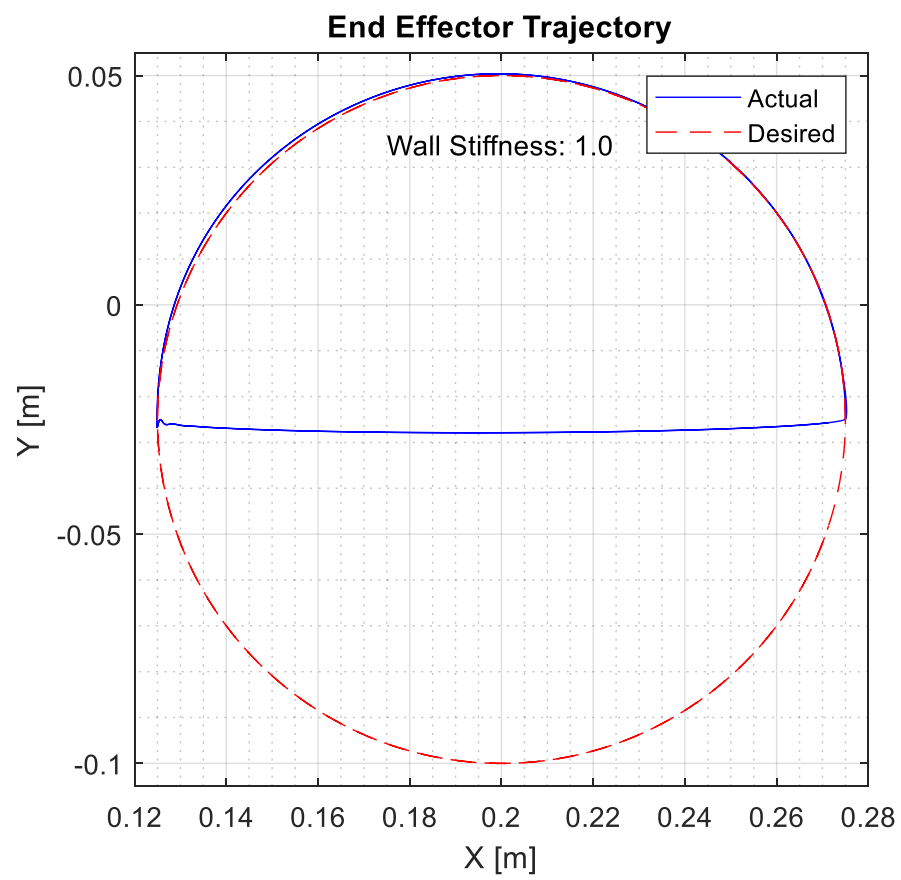
Zachary Orton

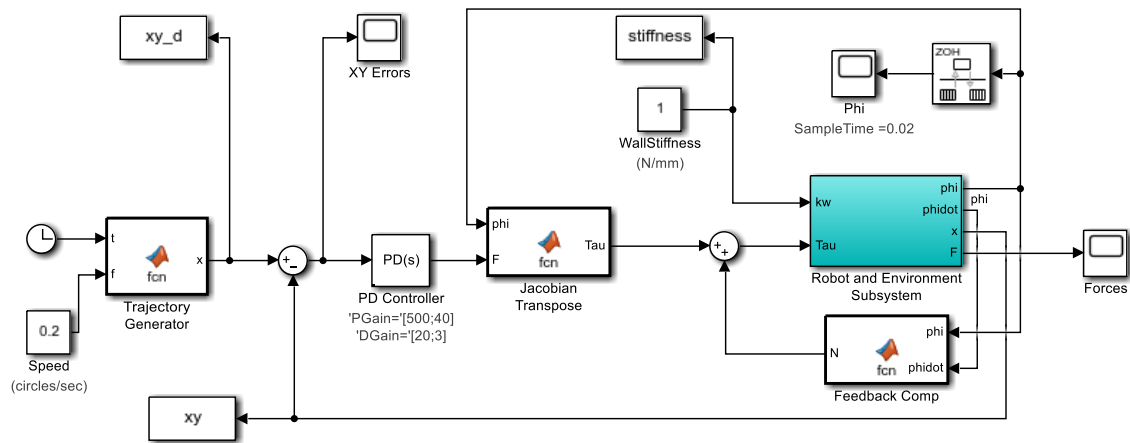
4/4/2023

PS#8

P1)



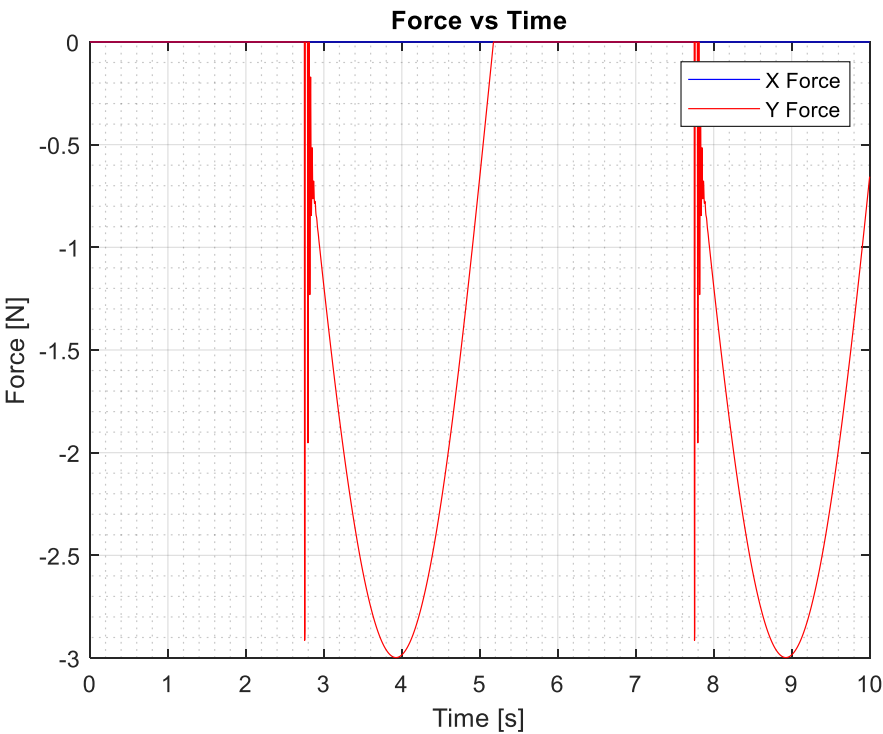
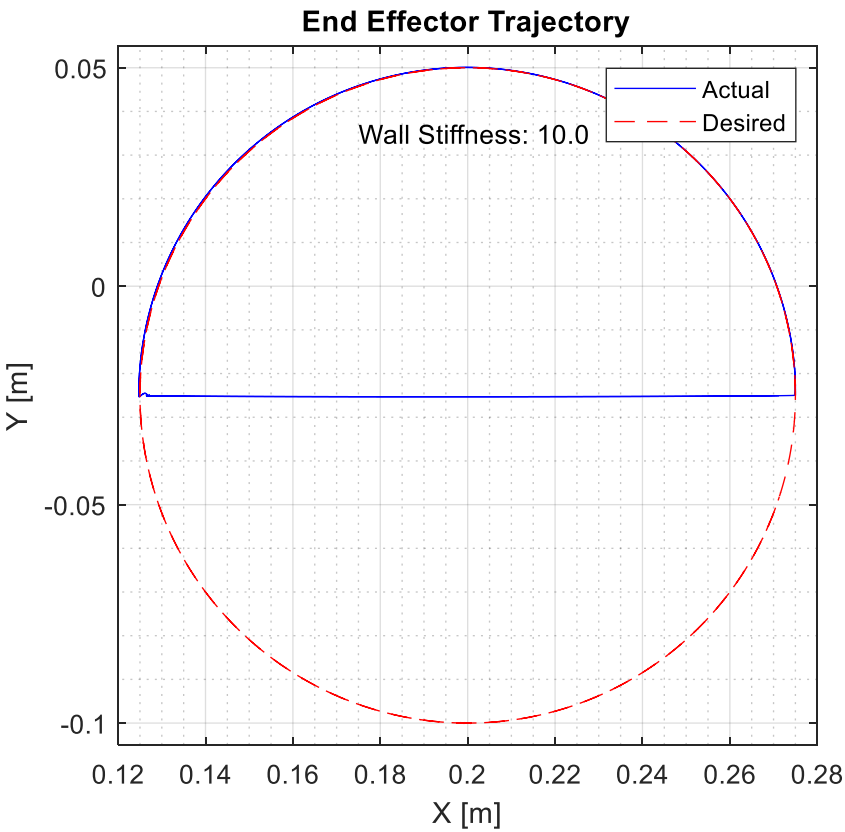


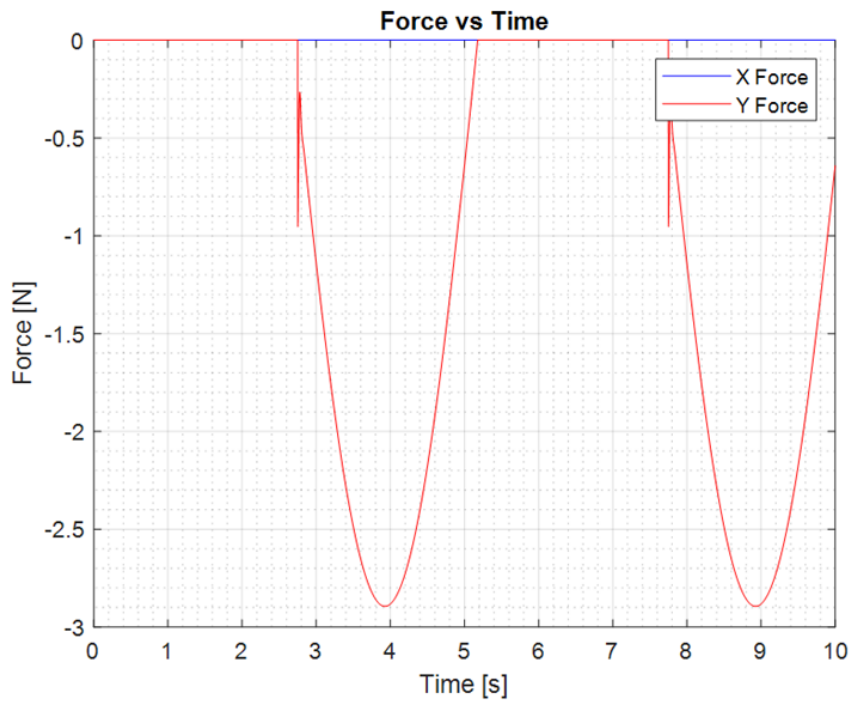
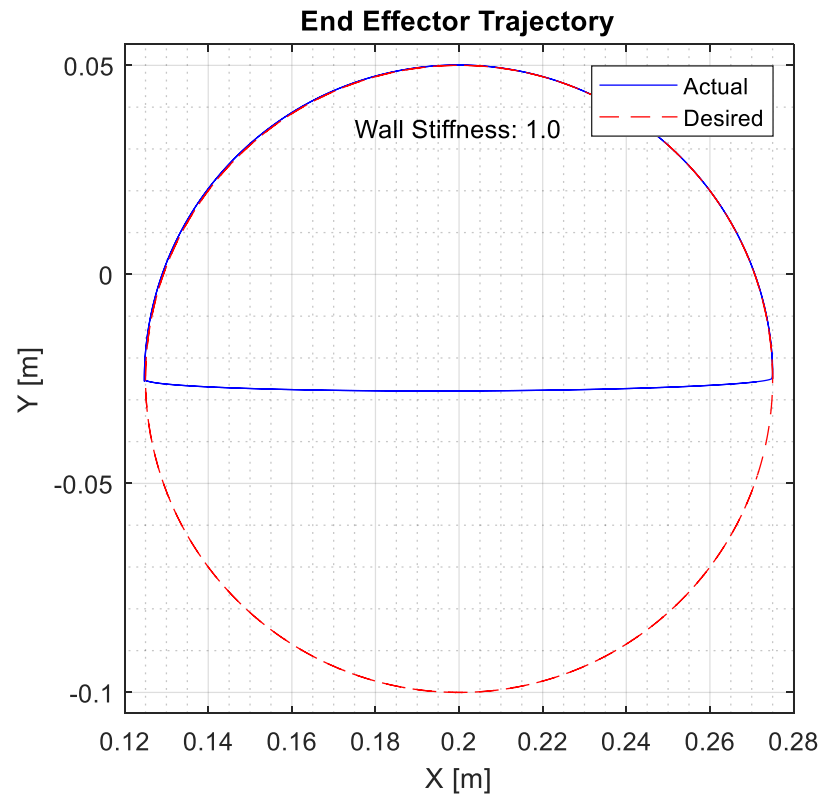


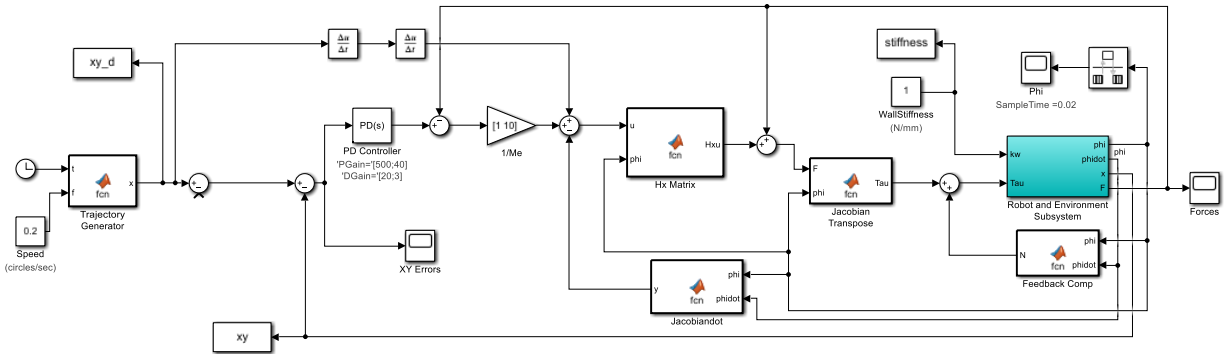
### Stiffness/Damping Control

Discuss: Stiffness control has decent tracking in free space and it is similar with both wall stiffnesses. It does not seem to limit the force during wall contact very well when initially impacting the wall, especially with a stiff wall. There is a big spike in force when first contacting the wall. With this control no force sensor is required.

P2)



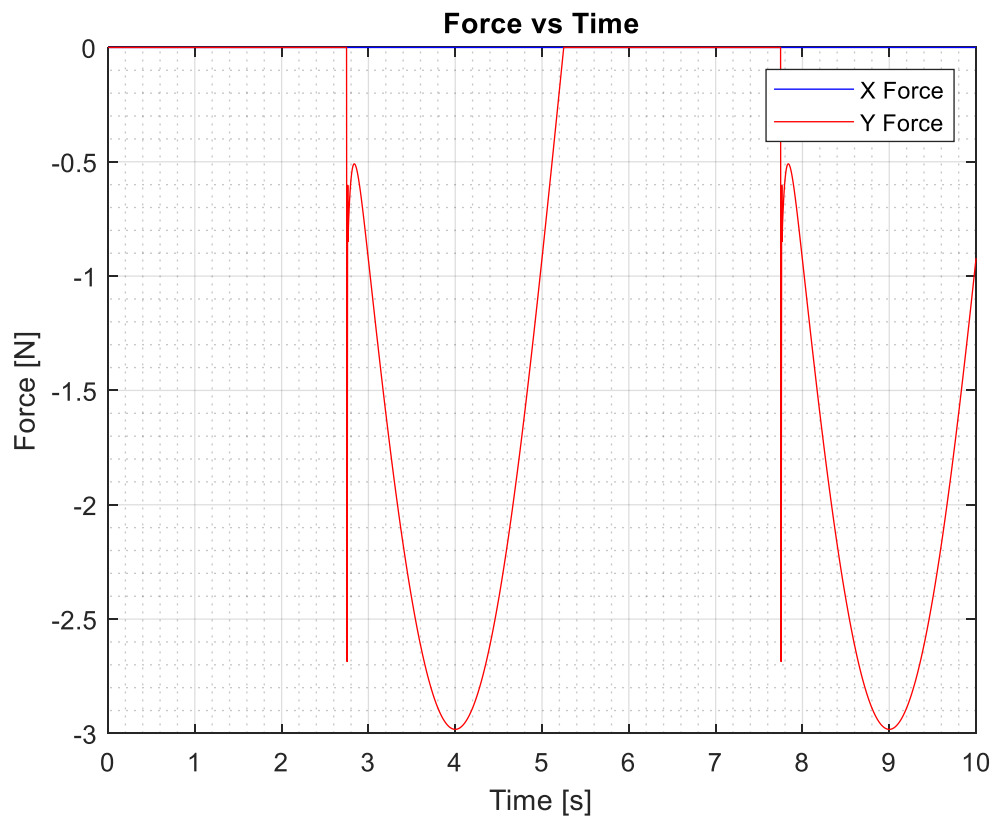
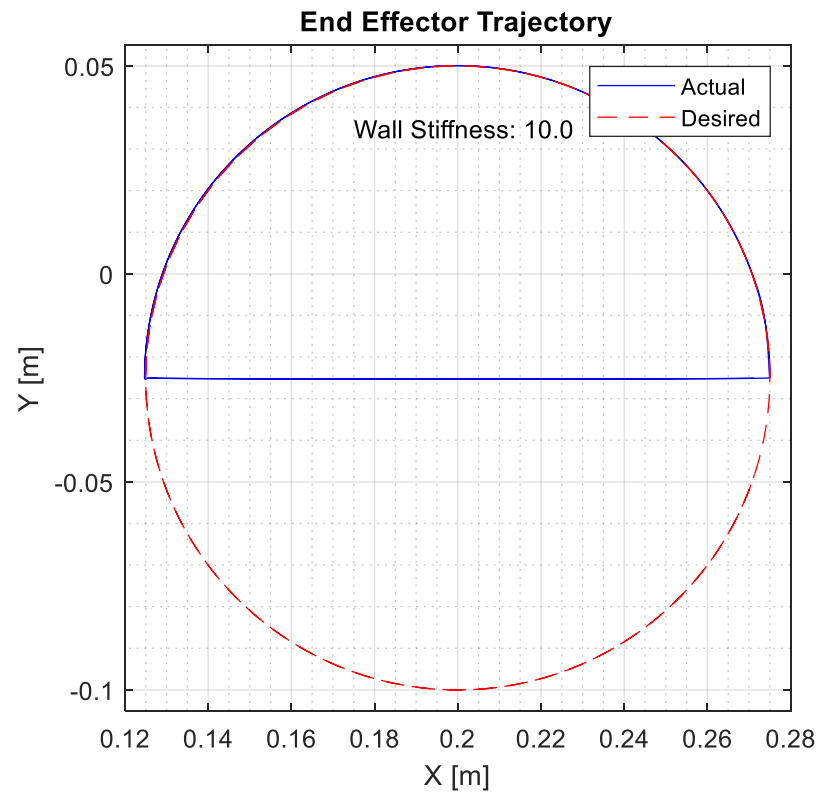


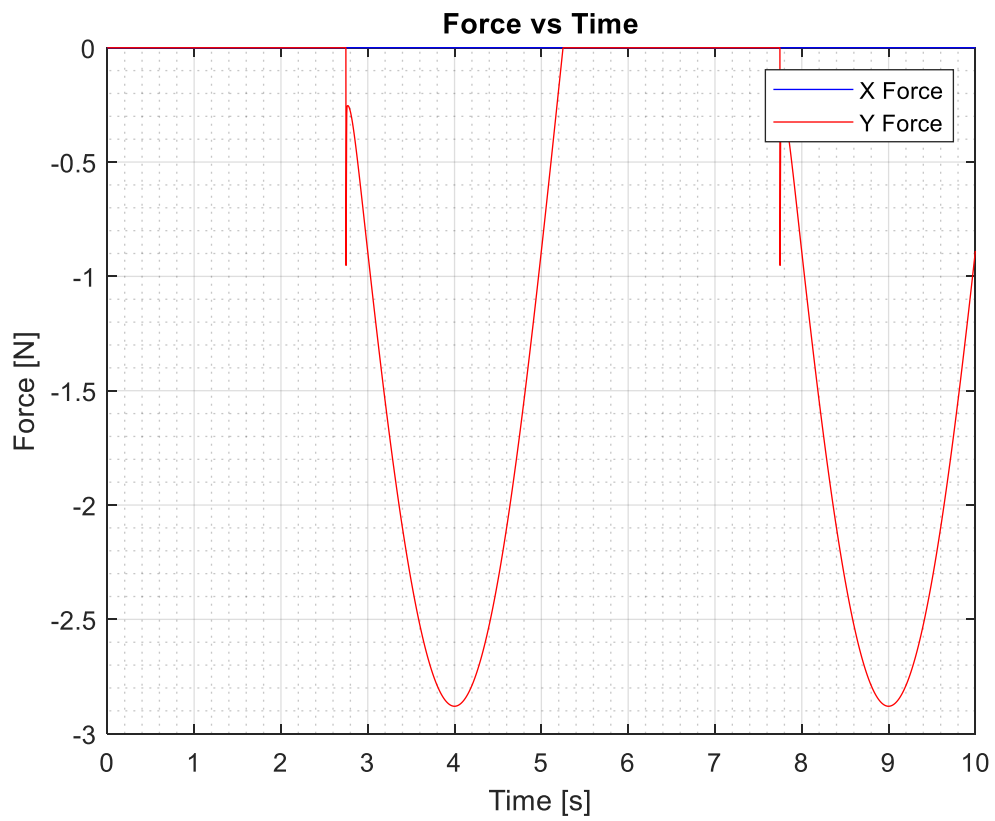
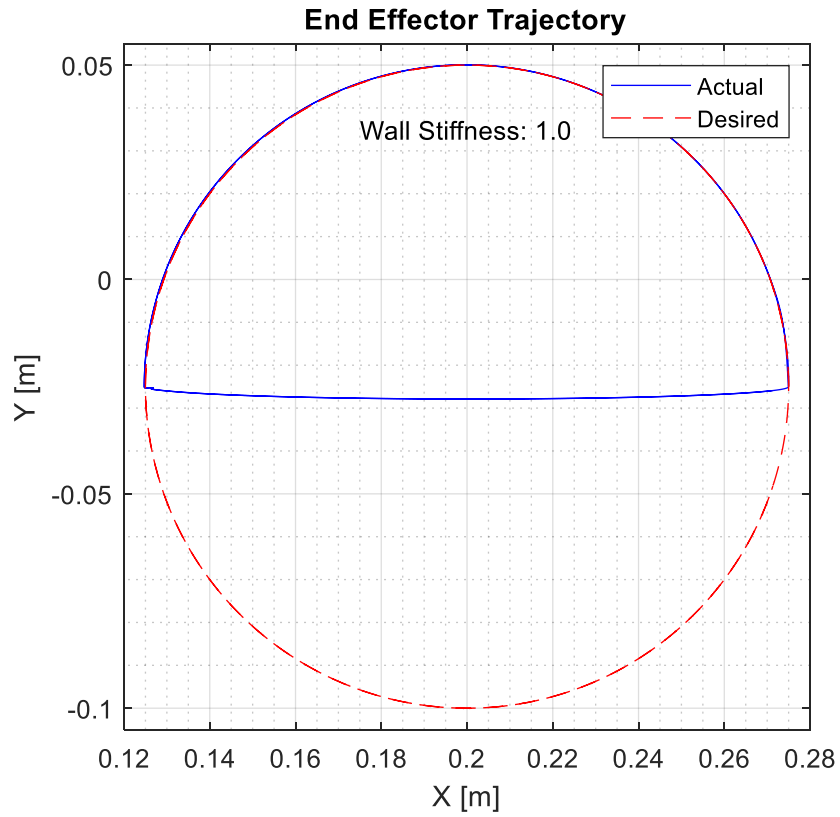


### Impedance Control with Stiffness/Damping/Inertia

Discuss: Impedance control has better tracking in free space than stiffness control and the tracking is similar with both wall stiffnesses. There is a big spike in force when first contacting the wall however it corrects down to a lower force much quicker than stiffness control. With this control a force sensor is required.

P3)









P4)

