**Oregon State University**

**Actuator Dynamics**

**Task Analysis with Passive Dynamics**

**Presentation Due: Monday/Wednesday, Week 10**

Add passive dynamics of your choice to try to improve performance for each of your three tasks from the previous assignment.

**Deliverables**

* Frequency plots
* Example plots of performance at different frequency rates
* Animations
* What ways can the system be improved?
* What are the limits of improvement?

**Goals**

* See how much passive dynamics can improve performance for different tasks for your particular type of actuator. See how good this class of actuator can possibly be, to inform decision-making for future robot designs. Gain strong intuition about the dynamics of your actuator, and teach this to the class. After this final project, each student in the class should be able to qualitatively judge actuator types when considering the construction of a new machine, and know how to break down a problem and quantitatively analyze if necessary.