Microgravity Press Washing Machine Development Log

05/08/23

Today I would call my official start up of the project again. I’ve had to shelve this project due to schoolwork and my activity in the various clubs I am in at school, but now with the semester over and me having moved up to my job for the Summer, it seems like a good time to start up again. I would like to work on this at least daily, getting something opened for the design.

05/09/23

Today I am recording an update to the design. I found that I could save on vertical space to maximize piston travel by moving the load cell assembly, so it is no longer directly in line with the piston head. The lead screws driving the piston extend to the lower assembly, and are not in line with the piston, so by putting the load cells at the thrust bearings, the same load can be measured. Additionally, the load cells can be used to measure the force application of each lead screw, helping for troubleshooting, diagnostics, and alignment on assembly. Smaller load cells can be used since multiple would be taking the brunt of the load as opposed to one. This does leave a potential disadvantage of only being able to sense load in the thrust direction since the current design is to use two thrust bearings at opposite ends of the screw

Another venture