



Hotfire 3.2

Propulsion Subteam - McGill Rocket Team

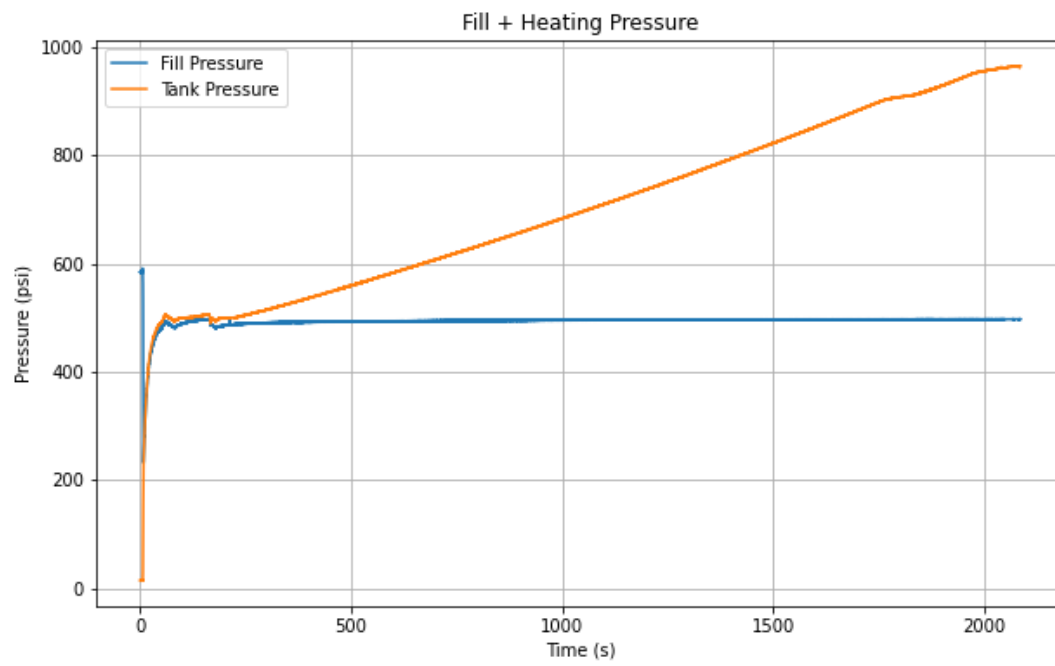
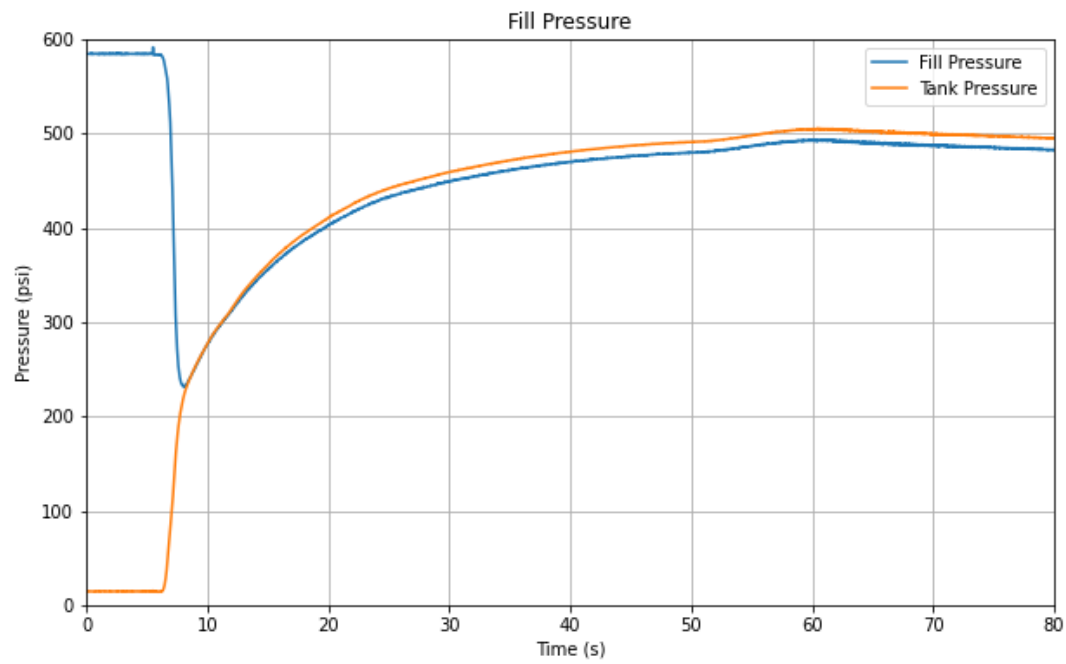
2023/11/04

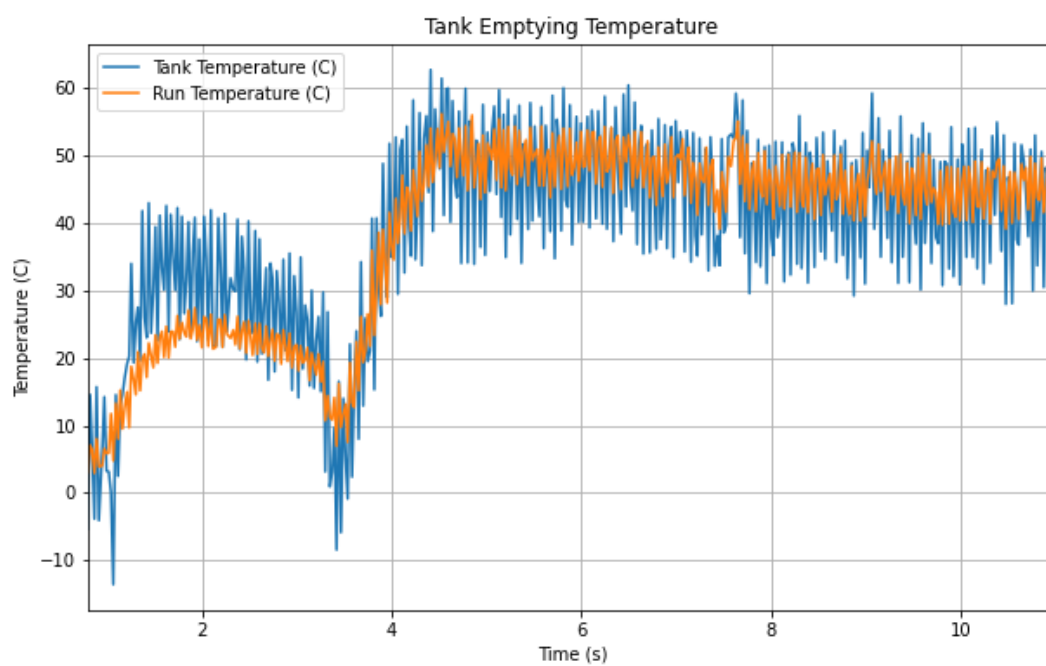
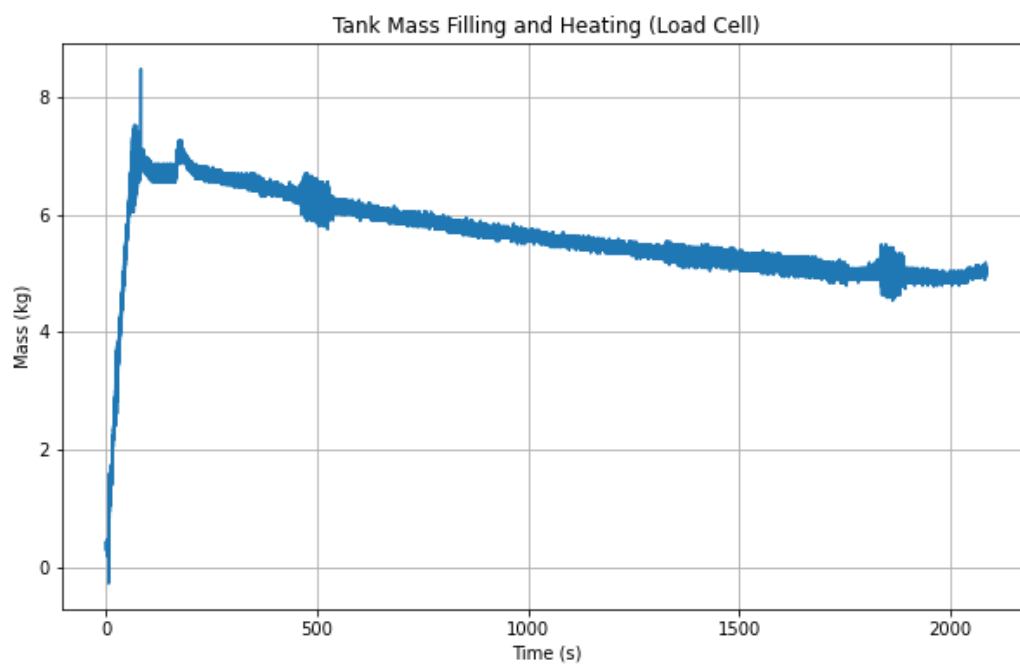
Abstract

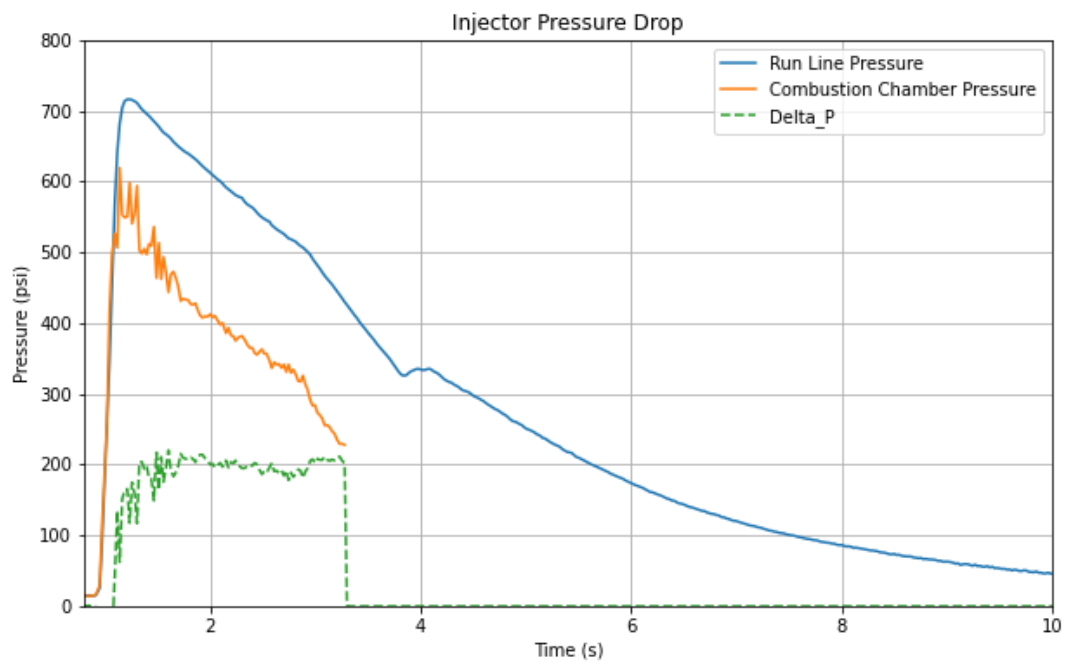
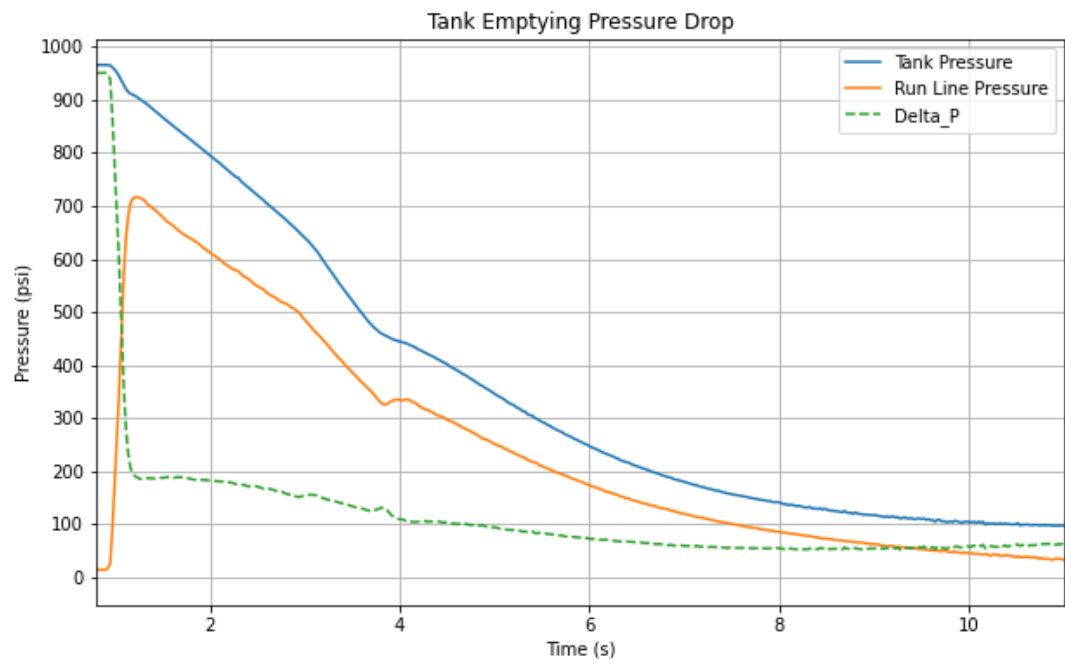
Table 1: Summary Results

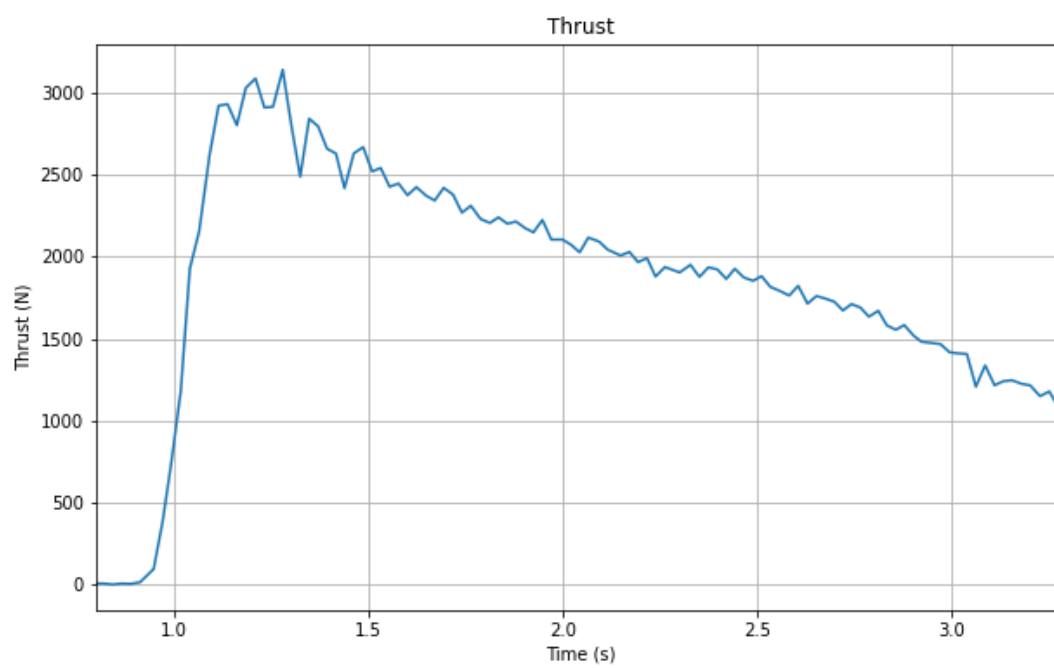
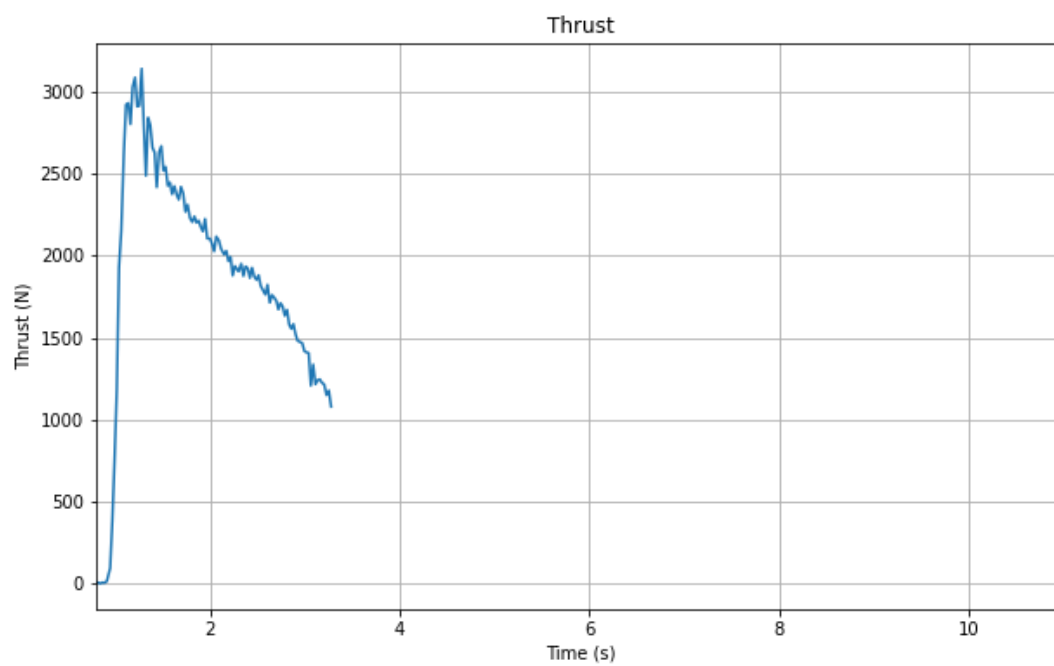
Variable	Value	Unit
Ambient Temperature	10	C
Run Tank Volume	15.3	L
Ullage Factor	55.3	%
Fuel Mass	1.885	kg
Fill Time	2089	s
Peak Tank Pressure	966	psi
Peak Tank Temperature	63	C
Total Tank Mass (measured)	7.1	kg
Liquid Nitrous Mass (estimated)	6.1	kg
Gaseous Nitrous Mass (estimated)	1.0	kg
Peak Run Pressure	716	psi
Peak CC Pressure	619	psi
Peak Mass Flow Rate (estimated)	5.79	kg/s
Average Mass Flow Rate (estimated)	2.15	kg/s
Burn Time	12	s
Peak Thrust	3142	N
Total Impulse	4654	Ns
Specific Impulse	48	s

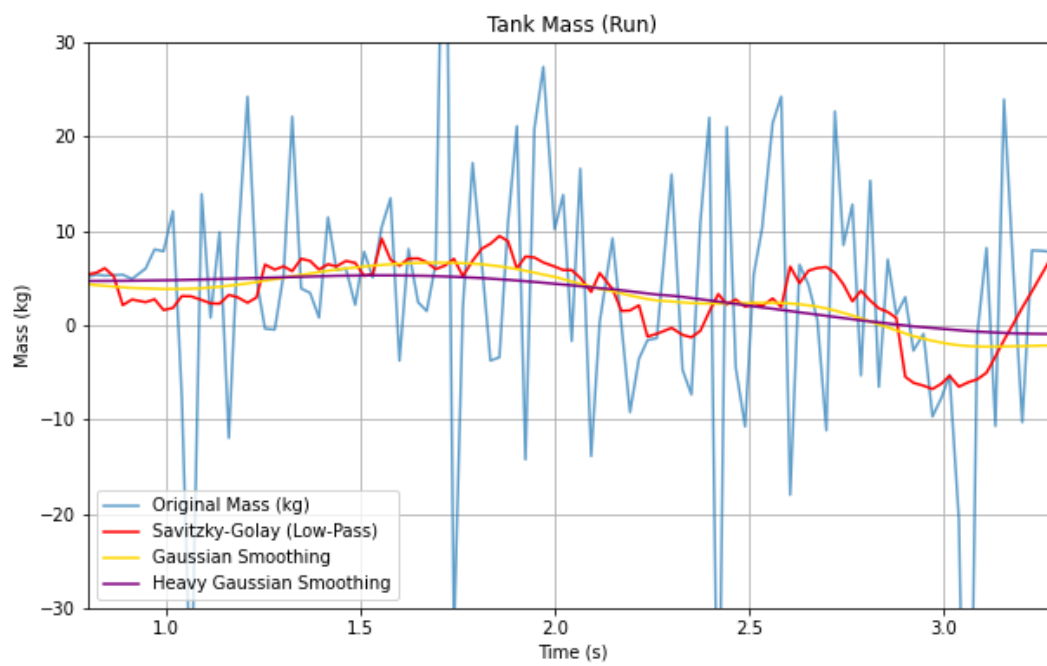
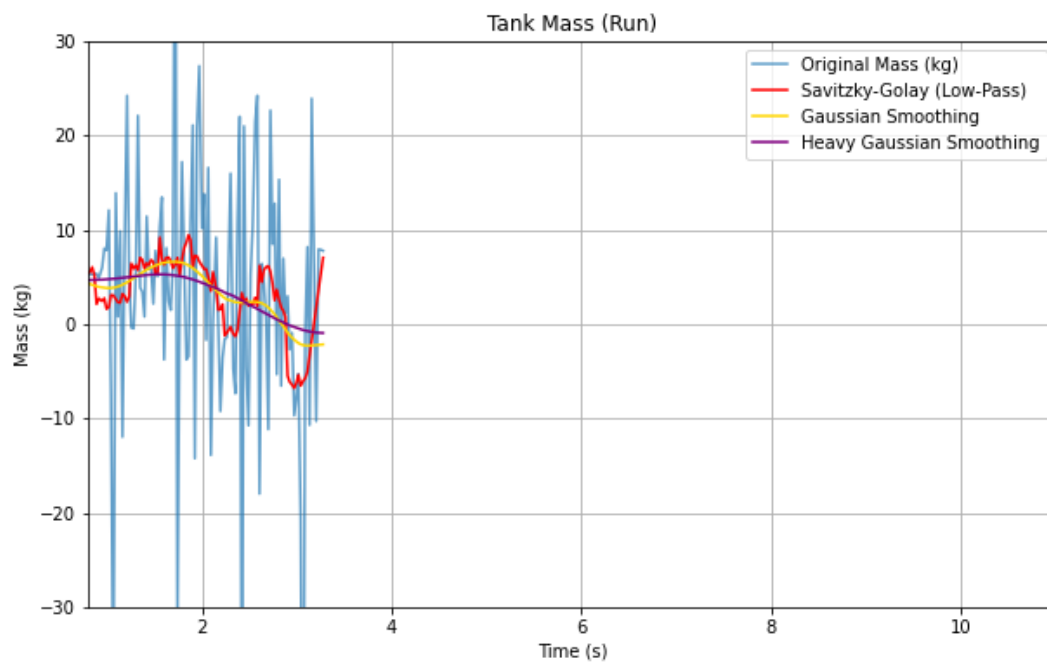
1 Plots

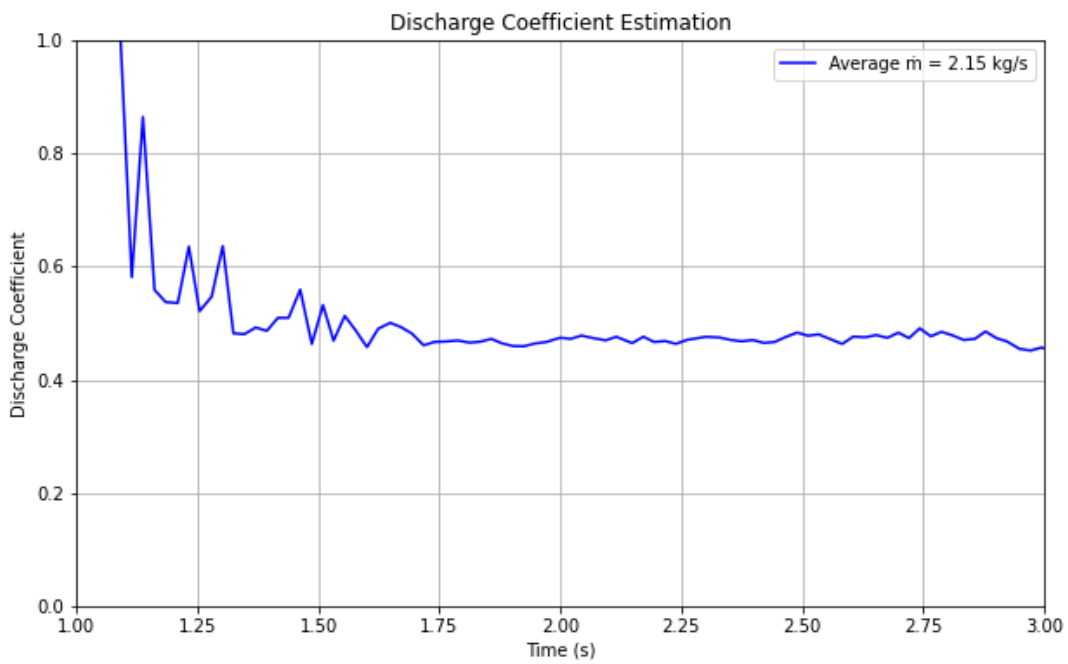
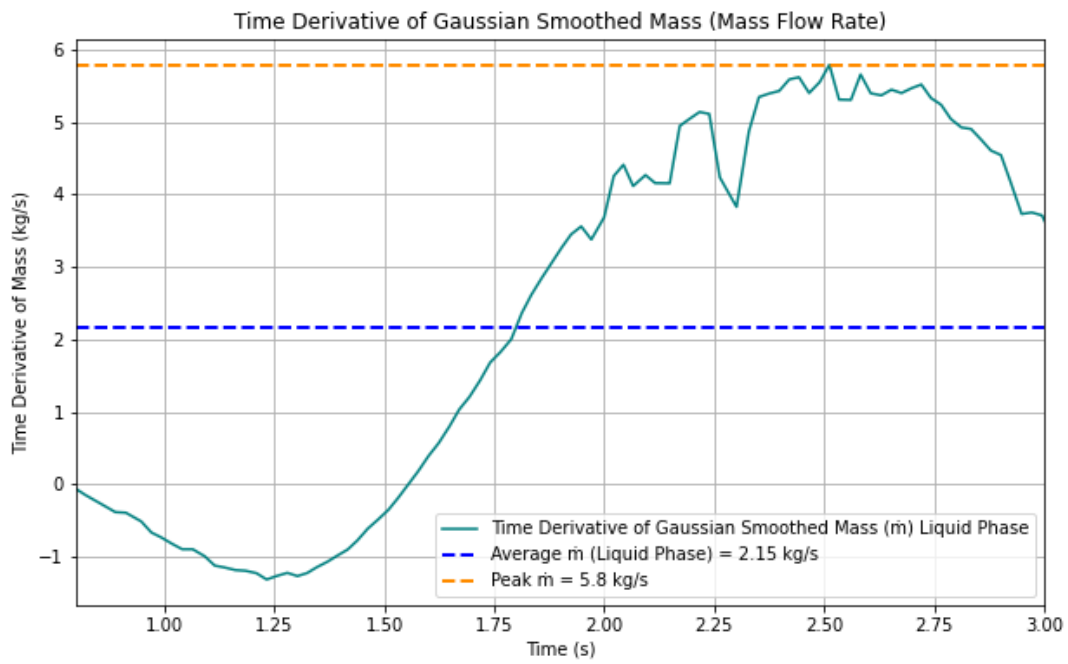


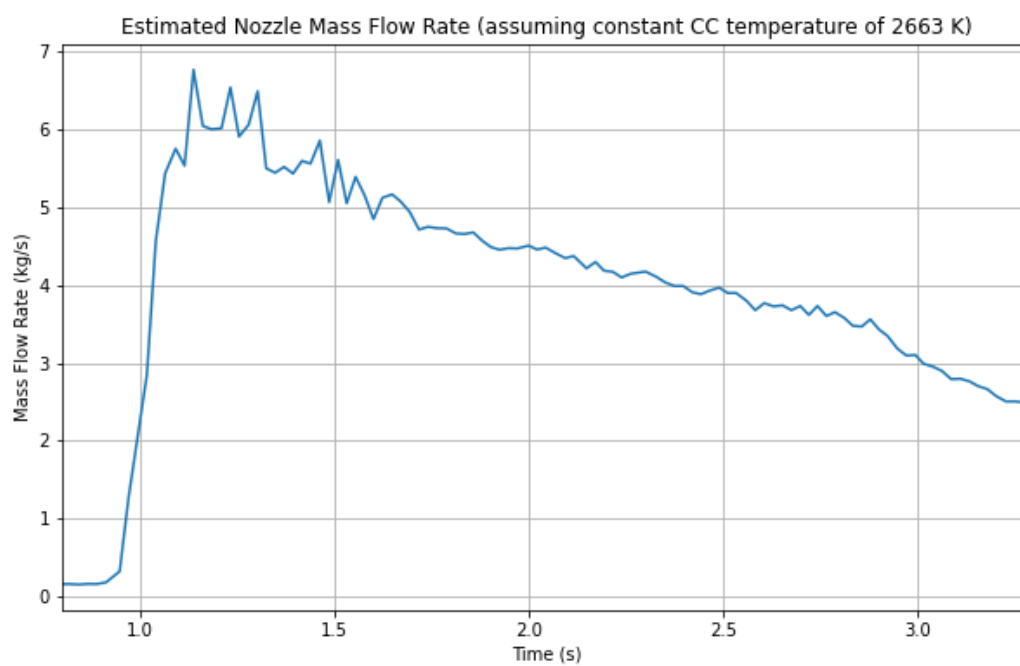
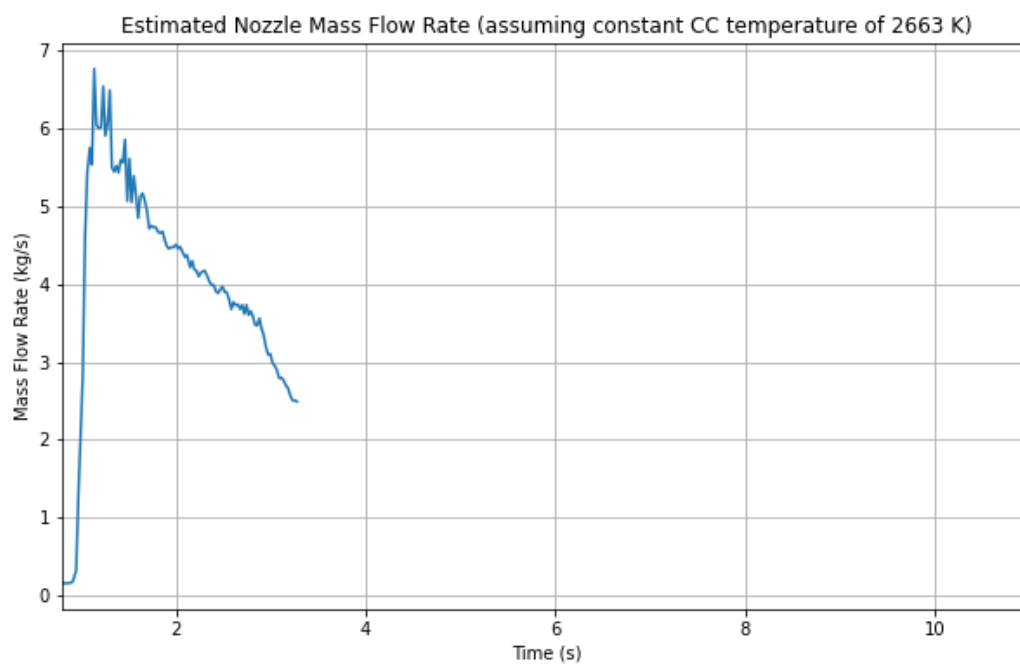


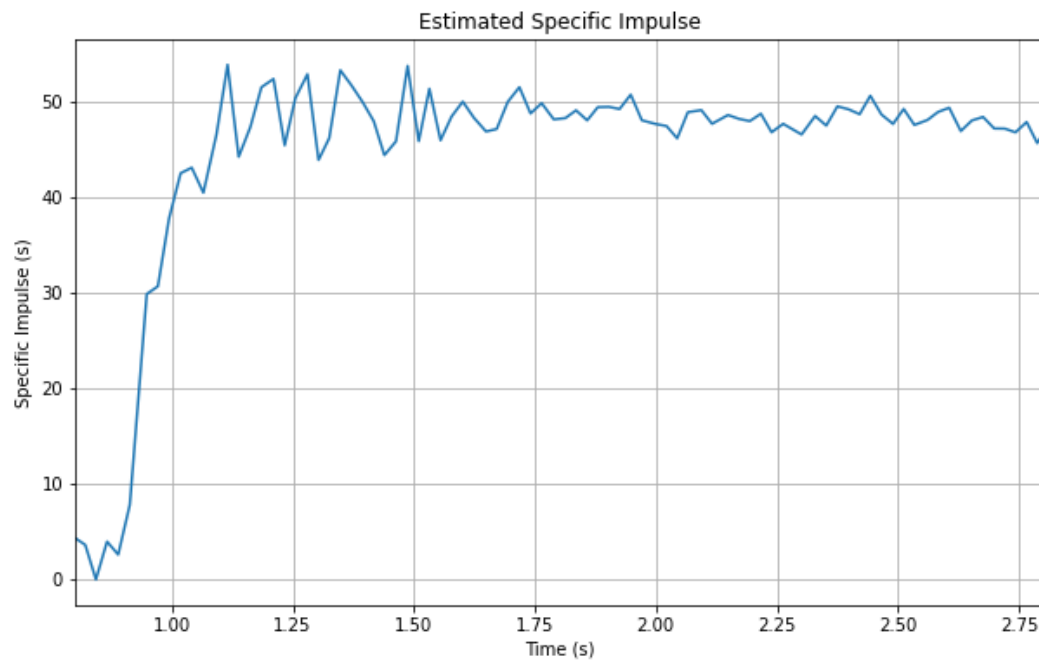












2 Issues Encountered

3 Conclusions