



Hotfire 3.3

Propulsion Subteam - McGill Rocket Team

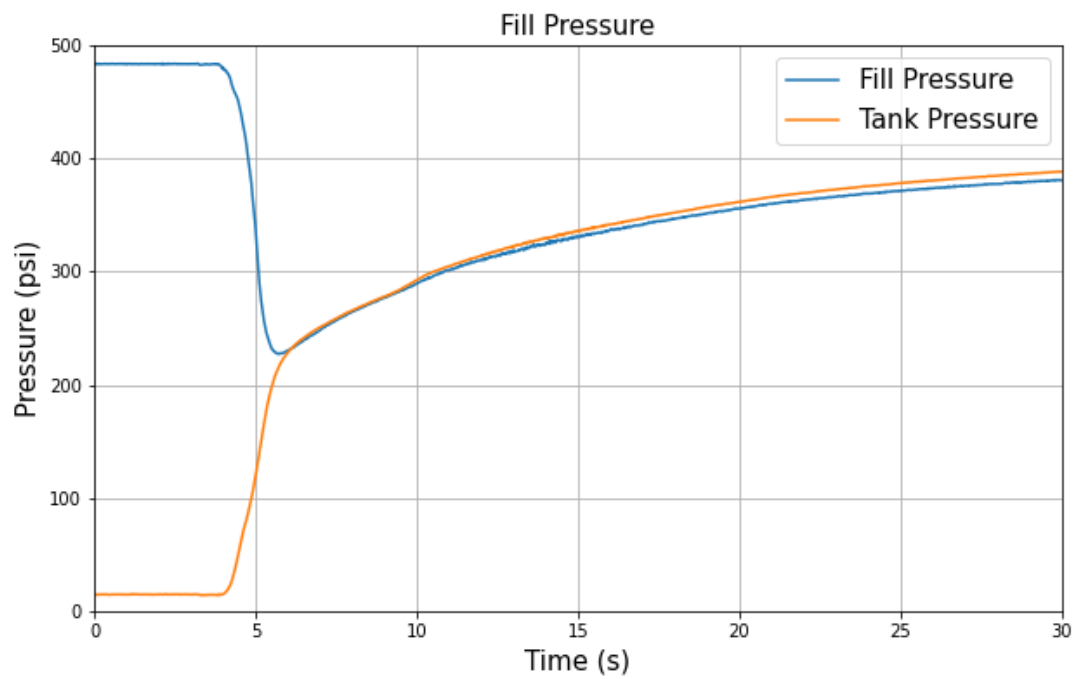
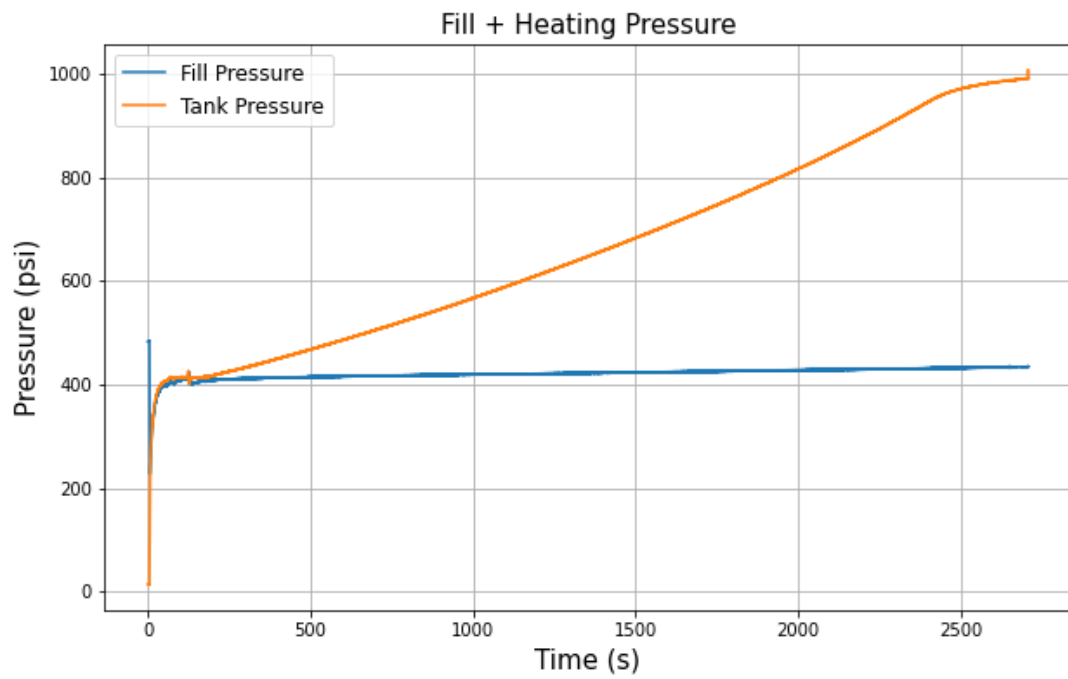
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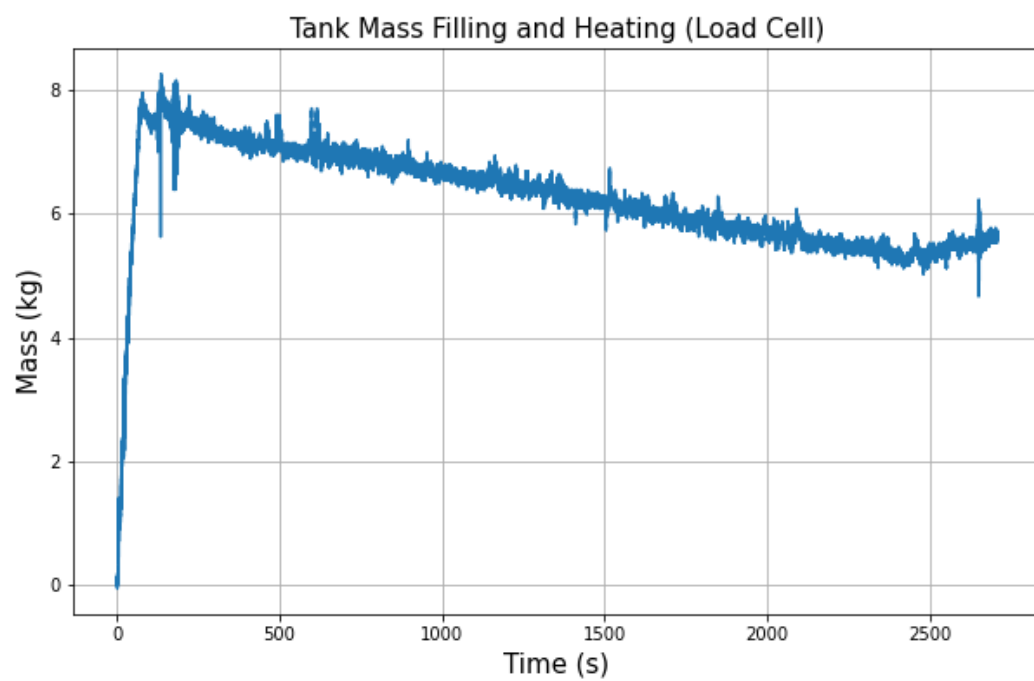
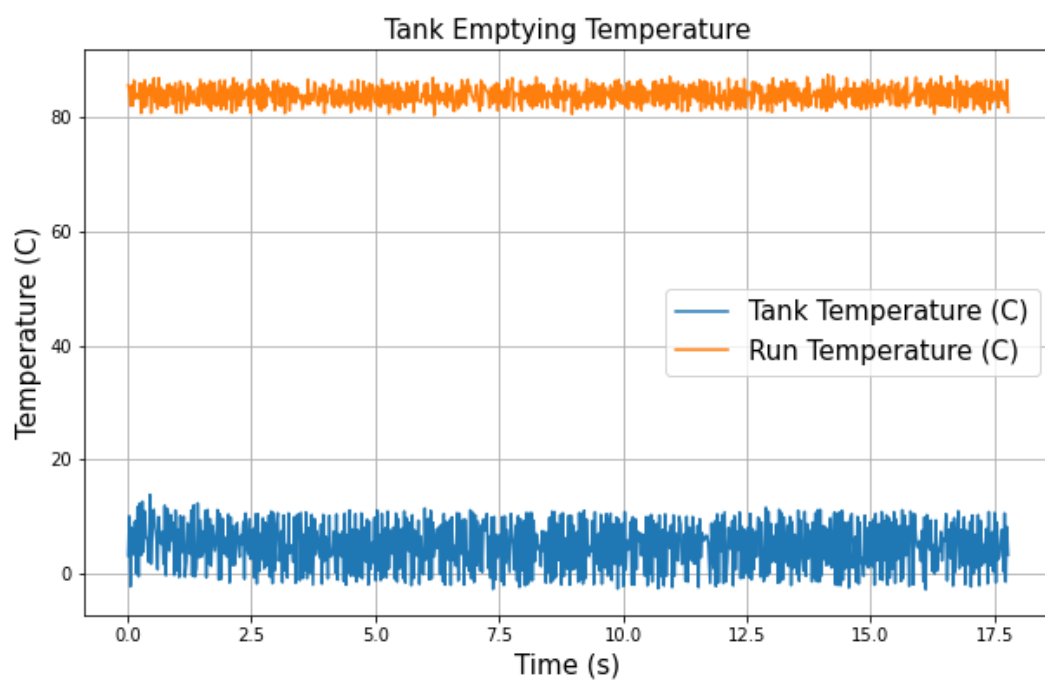
Abstract

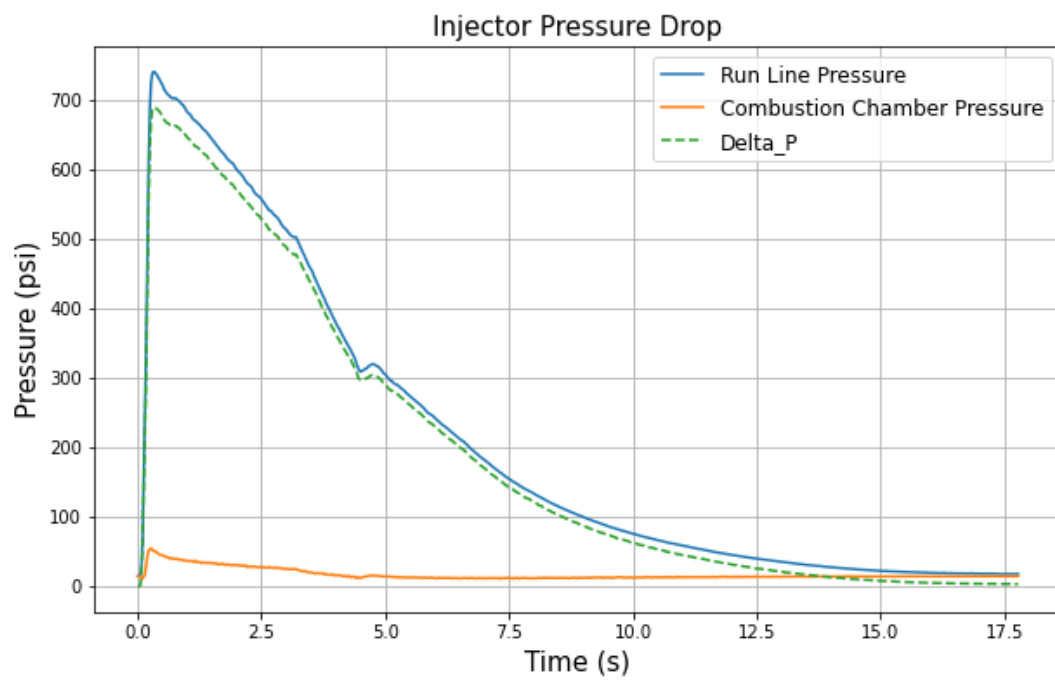
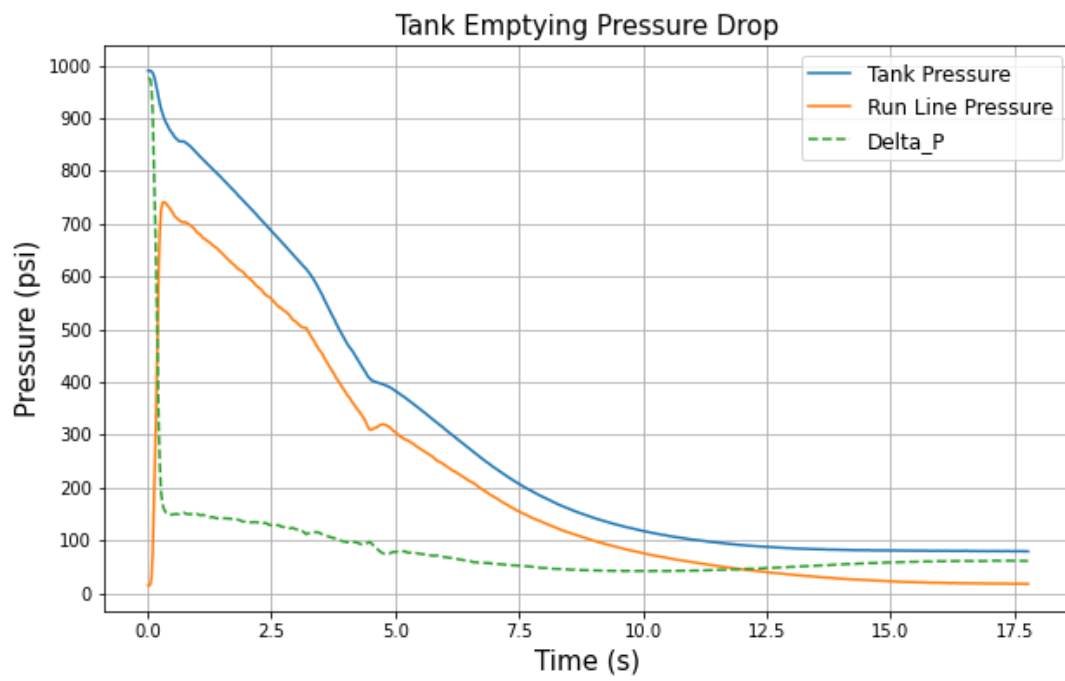
Table 1: Summary Results

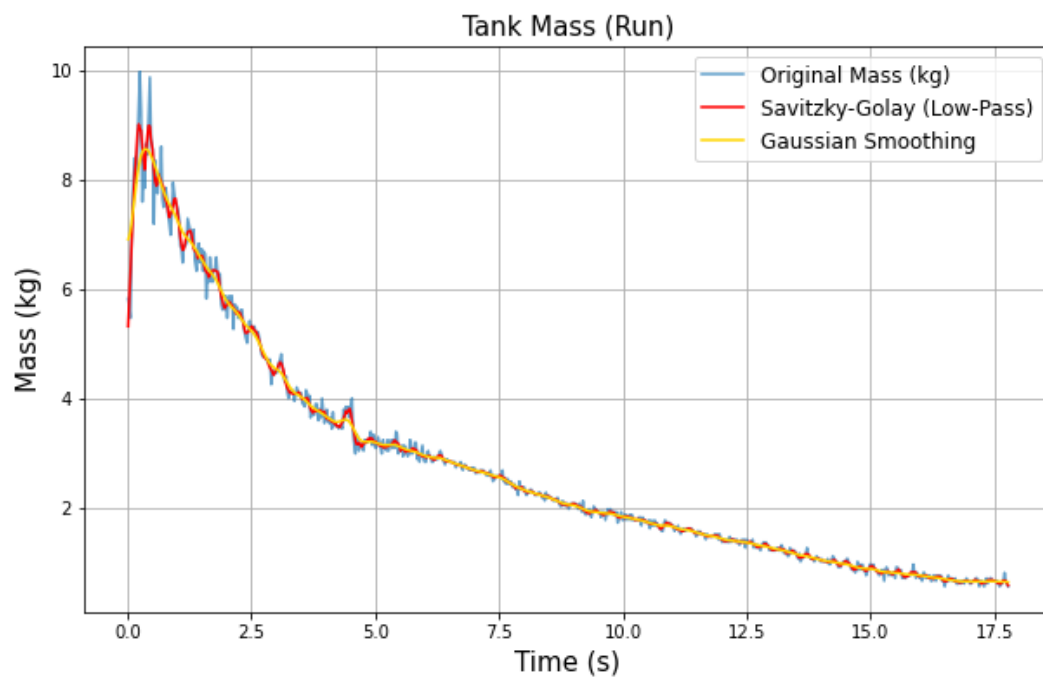
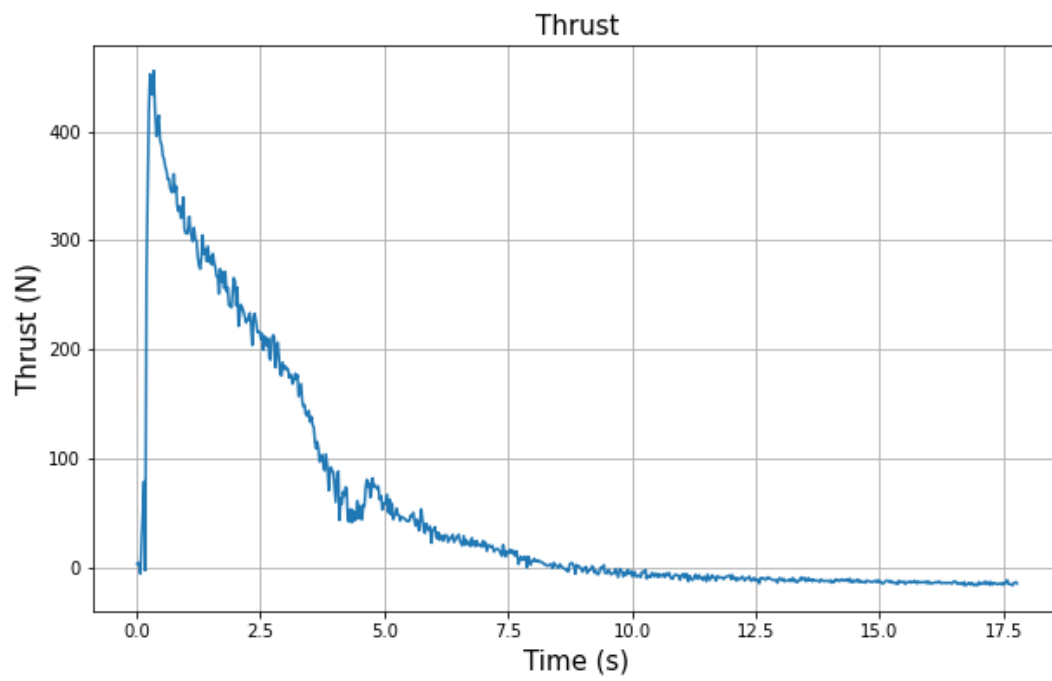
Variable	Value	Unit
Ambient Temperature	5	C
Run Tank Volume	15.3	L
Ullage Factor	46	%
Fuel Mass	1.900	kg
Fill Time	2707	s
Peak Tank Pressure	990	psi
Peak Tank Temperature	14	C
Total Tank Mass (measured)	7.7	kg
Liquid Nitrous Mass (estimated)	6.9	kg
Gaseous Nitrous Mass (estimated)	0.8	kg
Peak Run Pressure	741	psi
Peak CC Pressure	55	psi
Injector Holes	22	
Injector Hole Diameter	2	mm
Peak Mass Flow Rate (estimated)	2.99	kg/s
Average Mass Flow Rate (estimated)	1.46	kg/s
Burn Time	N/A	s
Peak Thrust	456	N
Total Impulse	980	Ns
Specific Impulse	75	s

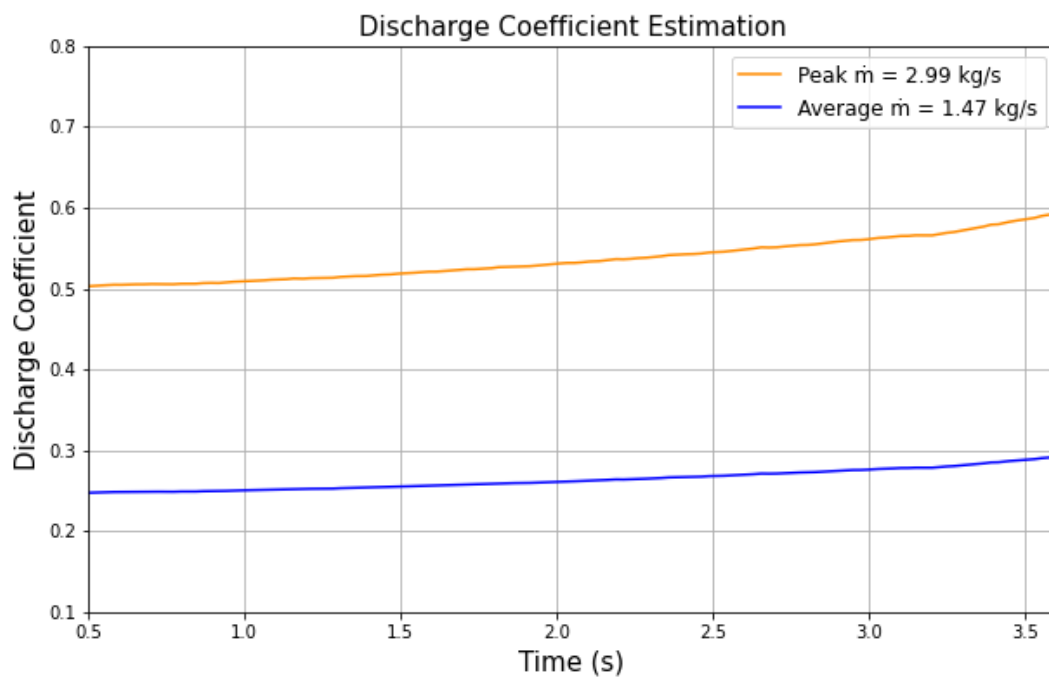
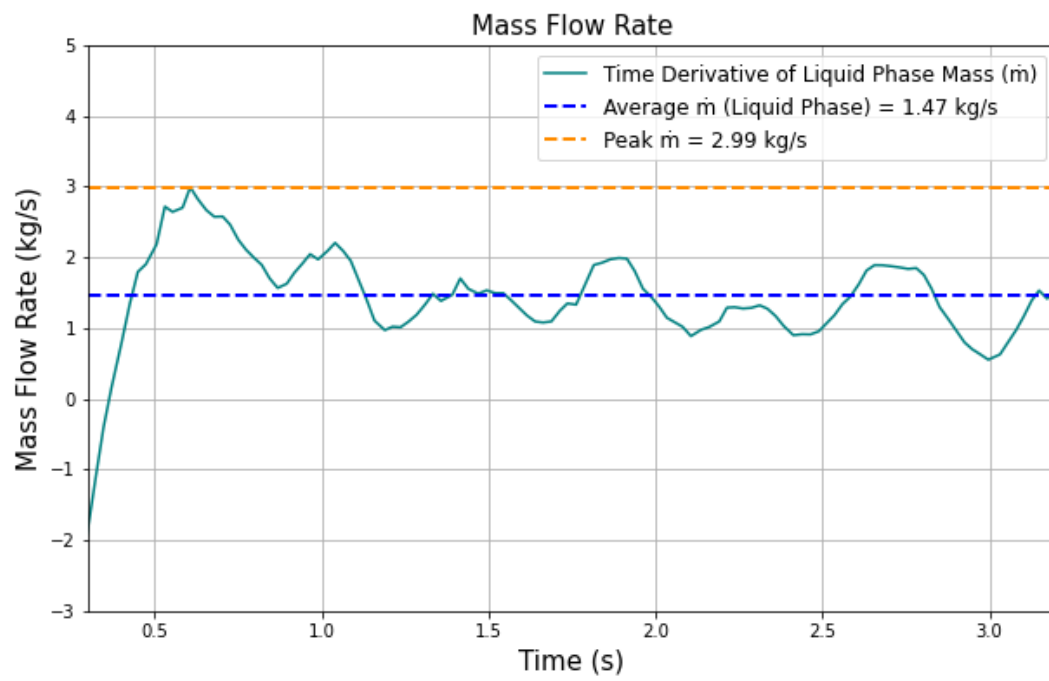
1 Plots

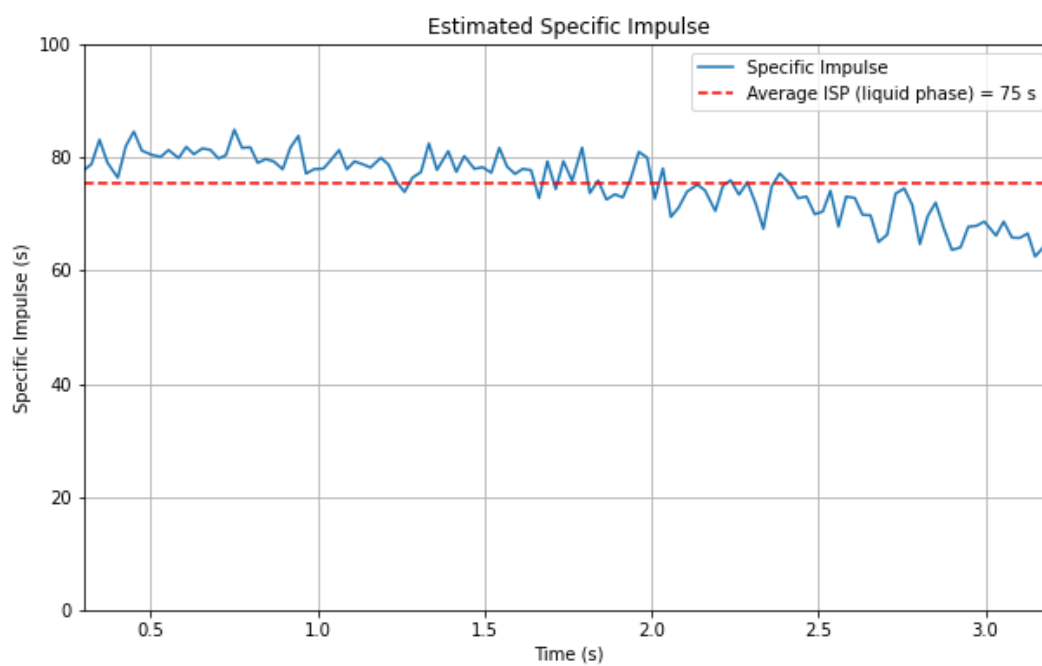
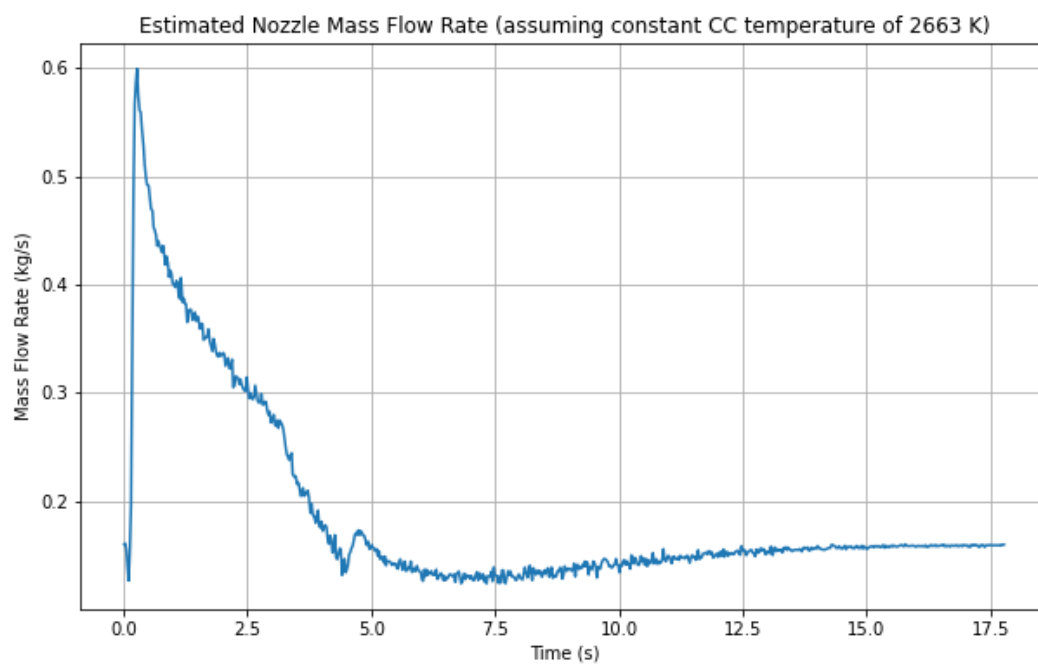












2 Issues Encountered

3 Conclusions

A Engine Disassembly Pictures