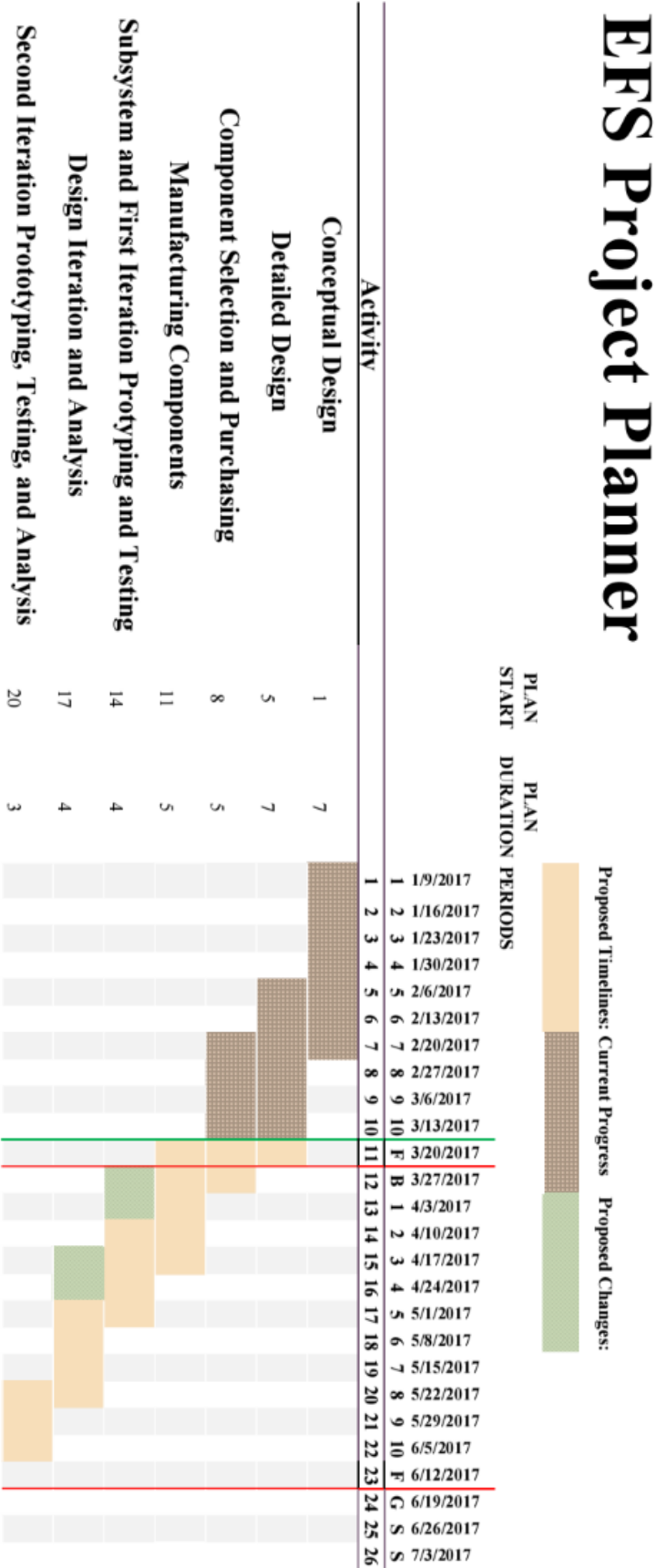


Appendix A1: Updated Gantt Chart



Appendix A2: Requirements and Measurements Matrix

Subsystem: Pump (1st Prototype)		Units												
Subsystem performance measures		PSI	lbm/s	PSI	seconds	seconds	lbm-in		y/n	USD	USD	min	min	
Target design requirements		< Imp	1	2	3	4	5	6	7	8	9	10	11	12
Outlet pressure of 350 psi		8	•		•									
Mass flow rate of 1.7 lbm/s		8		•										
Operational life of 60s		10			•	•	•	•						
Includes variety of test impeller & housing options		12							•		•	•		
Assembly can be fabricated quickly		8								•				
Fabrication of assembly is affordable		6								•	•	•		
Test impellers can be changed in 5 minutes		5											•	
Assembly/dissassembly in under 1 hour		2												•
		Imp ->	8	8	18	10	10	10	12	14	18	18	5	2
		Lower Acceptable	260	1.3	500			-	5	-	-	-	30	-
		Ideal	350	1.7	600			unknown	7	yes	50	50	5	60
		Upper Acceptable	440	2.1	-			-	9	-	500	100	-	120

Figure A.1: Requirements/measurements matrix for the first prototype EFS

Subsystem: Pump (2nd Prototype)		Subsystem performance measures		Units							
Target design requirements		< Imp	1	2	3	4	5	6	7	8	9
Outlet pressure of 350 psi		7	•		•	•					
Mass flow rate of 1.7 lbm/s		7		•							
Sustained operation for 20s		9				•	•	•	•		
Mass approximates flight ready system (~10kg)		3			•					•	
Assembly/dissassembly in under 1 hour		2									•
		Imp ->	7	7	10	16	9	9	9	3	2
		Upper Acceptable	385	1.8	-	-	-	-	-	15	120
		Ideal	350	1.7	500	500	20	200	unknown	10	60
		Lower Acceptable	315	1.6	450	450	0.33	20	-	-	-

Figure A.2: Requirements/measurements matrix for the second prototype EFS