

ID	WBS	Task Name	Duration	Start	Finish	Aug '18	Sep '18	Oct '18	Nov '18	Dec '18
1	1	Concept and Design	26 days	Wed 8/1/18	Wed 9/5/18					
2	1.1	Design Constraints from Fermilab	0 days	Wed 8/1/18	Wed 8/1/18					
3	1.2	Existing Concept Refinement	5 days	Wed 8/1/18	Tue 8/7/18					
4	1.3	Detailed Mechanical Design	10 days	Wed 8/8/18	Tue 8/21/18					
5	1.4	Preliminary Design Review (informal)	1 day	Wed 8/22/18	Wed 8/22/18					
6	2	Analysis and Fab Prep	20 days	Wed 8/22/18	Wed 9/19/18					
7	2.1	Mechanical Analysis	16 days	Wed 8/22/18	Thu 9/13/18					
8	2.1.1	FEA Loads and Boundary Conditions from Fermilab	0 days	Wed 8/22/18	Wed 8/22/18					
9	2.1.2	Finite Element Model(s)	5 days	Thu 8/23/18	Wed 8/29/18					
10	2.1.3	Static Structural Analysis	4 days	Thu 8/30/18	Tue 9/4/18					
11	2.1.4	Analysis of Fittings/Fasteners/Welds	5 days	Wed 9/5/18	Tue 9/11/18					
12	2.1.5	Buckling Analysis	2 days	Wed 9/12/18	Thu 9/13/18					
13	2.2	Analysis Report	3 days	Fri 9/14/18	Tue 9/18/18					
14	2.3	2-D Drawings for Machining	10 days	Thu 8/23/18	Wed 9/5/18					
15	2.4	Critical Design Review (informal)	1 day	Wed 9/19/18	Wed 9/19/18					
16	3	Fabrication and Delivery	52 days	Thu 9/20/18	Fri 11/30/18					
17	3.1	Procure Raw Materials	10 days	Thu 9/20/18	Wed 10/3/18					
18	3.2	Procure fasteners and other hardware	5 days	Thu 9/20/18	Wed 9/26/18					
19	3.3	Machine Parts (PSL Maching Shop)	15 days	Thu 10/4/18	Wed 10/24/18					
20	3.4	Surface Treatment (Iridite, Paint, etc.)	5 days	Thu 10/25/18	Wed 10/31/18					
21	3.5	Assembly (to extent possible)	5 days	Thu 11/1/18	Wed 11/7/18					
22	3.6	Test (to extent possible)	5 days	Thu 11/8/18	Wed 11/14/18					
23	3.7	Pack for Shipment (may be subassemblies)	2 days	Thu 11/15/18	Fri 11/16/18					
24	3.8	Ship to Fermilab	1 day	Mon 11/19/18	Mon 11/19/18					
25	3.9	Travel to Fermilab (if required)	1 day	Tue 11/20/18	Tue 11/20/18					
26	3.10	Complete assembly/installation (if required)	3 days	Wed 11/21/18	Fri 11/23/18					
27		Contingency	5 days	Mon 11/26/18	Fri 11/30/18					

