

ID	WBS	Task Name	Duration	Start	Finish	Cost Center	Fixed Cost	Cost	Active	Cost per Unit			2017					2018				2019				2020				2021				
											Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1		
53	1.5.4	MAPS Inner Barrel Review (CD-2/3)	12 days	Mon 7/2/18	Tue 7/17/18		\$0.00	\$11,200.00		\$0.00																								
54	1.5.4.1	MAPS Final Design Review	1 day	Mon 7/2/18	Mon 7/2/18		\$0.00	\$1,600.00		\$0.00																								
55	1.5.4.2	Incorporate Review Comments	10 days	Tue 7/3/18	Mon 7/16/18		\$0.00	\$8,000.00		\$0.00																								
56	1.5.4.3	Complete Final Design (CD-2)	1 day	Tue 7/17/18	Tue 7/17/18		\$0.00	\$1,600.00		\$0.00																								
57	1.5.5	Productions	534 days?	Thu 6/14/18	Tue 6/30/20		\$0.00	\$2,423,842.86	Prod	\$0.00																								
58	1.5.5.1	Full Pre-Production-Mechnical System Mock Up Test	90 days	Thu 6/14/18	Wed 10/17/18		\$50,000.00	\$93,200.00		\$0.00																								
59	1.5.5.2	Procurements	180 days?	Wed 8/1/18	Tue 4/9/19		\$0.00	\$2,163,602.86		\$0.00																								
60	1.5.5.2.1	CERN Procuments	180 days?	Wed 8/1/18	Tue 4/9/19		\$0.00	\$1,038,078.86		\$0.00																								
61	5.5.2.1.1	Produce 68 Inner Staves	180 days	Wed 8/1/18	Tue 4/9/19		\$440,000.00	\$999,542.86		\$6,500.00																								
62	5.5.2.1.2	Other ITS/CERN items	120 days	Wed 8/1/18	Tue 1/15/19		\$10,000.00	\$11,536.00		\$0.00																								
63	5.5.2.1.3	Travel and Per Diem at CERN	180 days?	Wed 8/1/18	Tue 4/9/19		\$27,000.00	\$27,000.00		\$0.00																								
64	1.5.5.2.2	Procure 68 Readout / FEM Units	100 days	Wed 8/1/18	Tue 12/18/18		\$322,000.00	\$334,800.00		\$4,700.00																								
65	1.5.5.2.3	Procure Optical Links 68	60 days	Thu 8/2/18	Wed 10/24/18		\$42,200.00	\$42,968.00		\$620.00																								
66	1.5.5.2.4	Procure 34 Common Readout Units	100 days	Fri 8/3/18	Thu 12/20/18		\$181,700.00	\$182,980.00		\$5,300.00																								
67	1.5.5.2.5	Procure 100 SamTec Cables	60 days	Mon 8/6/18	Fri 10/26/18		\$27,000.00	\$27,768.00		\$270.00																								
68	1.5.5.2.6	Procure Ancillary Materials (LVPS and cables etc)	100 days	Tue 8/7/18	Mon 12/24/18		\$60,000.00	\$61,280.00		\$0.00																								
69	1.5.5.2.7	Procure Cooling Plant	100 days	Wed 8/1/18	Tue 12/18/18		\$117,000.00	\$118,280.00		\$0.00																								
70	1.5.5.2.8	Procure Assembly Fixtures & Jigs	60 days	Thu 8/2/18	Wed 10/24/18		\$100,000.00	\$100,768.00		\$0.00																								
71	1.5.5.2.9	Procure End Wheels	100 days	Fri 8/3/18	Thu 12/20/18		\$34,000.00	\$35,280.00		\$0.00																								
72	5.5.2.10	Procure Cylindrical Structural Shells	100 days	Mon 8/6/18	Fri 12/21/18		\$11,000.00	\$12,280.00		\$0.00																								
73	5.5.2.11	Procure Detector Half Barrels	100 days	Tue 8/7/18	Mon 12/24/18		\$13,000.00	\$14,280.00		\$0.00																								
74	5.5.2.12	Procure Service Half Barrels	100 days	Wed 8/8/18	Tue 12/25/18		\$120,000.00	\$121,280.00		\$0.00																								
75	5.5.2.13	Procure Detector and Service Half Barrels	100 days	Thu 8/9/18	Wed 12/26/18		\$21,000.00	\$22,280.00		\$0.00																								
76	5.5.2.14	Procure Two Half Support Structures	100 days	Fri 8/10/18	Thu 12/27/18		\$50,000.00	\$51,280.00		\$0.00																								
77	1.5.5.3	Assembly and Testing at BNL	400 days	Wed 12/19/18	Tue 6/30/20		\$0.00	\$167,040.00		\$0.00																								
78	1.5.5.3.1	Test Production FEMS, e-Links, CRU, LV, optical links	60 days	Tue 12/25/18	Mon 3/18/19		\$0.00	\$11,520.00		\$0.00																								
79	1.5.5.3.2	Test Cooling System	20 days	Wed 12/19/18	Tue 1/15/19		\$0.00	\$6,400.00		\$0.00																								
80	1.5.5.3.3	Stave Reciept Inspection	10 days	Wed 4/10/19	Tue 4/23/19		\$0.00	\$1,280.00		\$0.00																								
81	1.5.5.3.4	Individual Stave Readout Test	70 days	Wed 4/24/19	Tue 7/30/19		\$0.00	\$8,960.00		\$0.00																								
82	1.5.5.3.5	Metrology on Stave Assemblies	70 days	Wed 7/31/19	Tue 11/5/19		\$0.00	\$33,600.00		\$0.00																								
83	1.5.5.3.6	Assemble full Ladders into Half support	100 days	Wed 11/6/19	Tue 3/24/20		\$0.00	\$20,480.00		\$0.00																								
84	1.5.5.3.7	Metrology on Final Assembly	10 days	Wed 3/25/20	Tue 4/7/20		\$0.00	\$8,000.00		\$0.00																								
85	1.5.5.3.8	Half detector Assembly Readout and Cooling Test	60 days	Wed 4/8/20	Tue 6/30/20		\$0.00	\$76,800.00		\$0.00																								