

ID	WBS	Task Name	Duration	Start	Finish	Cost Center	Fixed Cost	Cost	Text10	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			
1	1	MAPS Inner Barrel	1217 days	Mon 10/3/16	Tue 6/1/21		\$0.00	\$4,835,948.24																									
2	1.11	MAPS Inner Barrel Starts	0 days	Sat 10/1/16	Sat 10/1/16		\$0.00	\$0.00	10/1																								
3	1.10	MAPS Inner Barrel Ends	0 days	Tue 6/1/21	Tue 6/1/21		\$0.00	\$0.00																									
4	1.1	Milestones of sPHENIX	1216 days	Mon 10/3/16	Tue 6/1/21		\$0.00	\$0.00																									
5	1.1.1	sPHENIX Technical Design CD-0	0 days	Tue 11/1/16	Tue 11/1/16		\$0.00	\$0.00	CD-0 (11/2																								
6	1.1.2	sPHENIX Technical Design (CD-1/CD-3a)	0 days	Wed 11/1/17	Wed 11/1/17		\$0.00	\$0.00	CD-1 (11/2																								
7	1.1.3	sPHENIX Technical Dewsgin (CD-2)	0 days	Mon 7/2/18	Mon 7/2/18		\$0.00	\$0.00	CD-2 (7/20																								
8	1.1.4	sPHENIX Start Construction (CD-3b)	0 days	Wed 8/1/18	Wed 8/1/18		\$0.00	\$0.00	CD-3b (8/2																								
9	1.1.5	sPHENIX Installation	0 days	Tue 6/1/21	Tue 6/1/21		\$0.00	\$0.00	ready for b																								
10	1.1.6	ALICE ITS Inner Barrel Construction	261 days	Mon 1/2/17	Mon 1/1/18		\$0.00	\$0.00	ITS constr																								
11	1.1.9	ALICE ITS Electronics Pre-Production	100 days	Wed 2/22/17	Tue 7/11/17		\$0.00	\$0.00	ITS Electr																								
12	1.1.8	ALICE ITS Electronics Production	240 days	Thu 7/13/17	Wed 6/13/18		\$0.00	\$0.00	ITS Electr																								
13	1.1.7	LANL LDRD	781 days	Mon 10/3/16	Mon 9/30/19	LDRD	\$0.00	\$0.00	LDRD																								
14	1.1.11	sPHENIX Test Beam	21 days	Fri 2/1/19	Fri 3/1/19	LDRD	\$0.00	\$0.00																									
15	1.2	Project Management	1217 days	Mon 10/3/16	Tue 6/1/21		\$0.00	\$671,784.00	sPHENIX																								
19	1.3	Design & Prototyping	363 days?	Mon 10/3/16	Wed 2/21/18	LDRD	\$0.00	\$980,090.91	LDRD/R&D																								
92	1.4	Prototype Assembly	50 days	Tue 2/6/18	Mon 4/16/18	LDRD	\$0.00	\$72,000.00																									
96	1.5	Test Beam Operation	35 days	Fri 1/11/19	Thu 2/28/19	LDRD	\$0.00	\$30,800.00																									
100	1.6	sPHENIX Mechanics Integration	42 days?	Wed 4/18/18	Thu 6/14/18		\$0.00	\$50,000.00																									
106	1.7	MAPS Inner Barrel Review	12 days	Fri 6/15/18	Mon 7/2/18		\$0.00	\$28,000.00																									
110	1.8	Productions	661 days?	Wed 8/1/18	Wed 2/10/21		\$0.00	\$3,003,273.33	Production																								
111	1.8.1	Full Mechnicas System pre-Production Mock Up and Test Beam Analysis	100 days	Fri 3/1/19	Thu 7/18/19		\$0.00	\$88,000.00																									
112	1.8.2	Procurements	359 days?	Wed 8/1/18	Mon 12/16/19		\$0.00	\$2,299,140.00																									
113	1.8.2.1	CERN Procuments	180 days?	Wed 8/1/18	Tue 4/9/19		\$0.00	\$1,097,840.00																									
114	1.8.2.1.1	Produce 68 Inner Staves	180 days	Wed 8/1/18	Tue 4/9/19		\$920,000.00	\$1,064,000.00																									
115	1.8.2.1.2	Other ITS/CERN items	120 days	Wed 8/1/18	Tue 1/15/19		\$10,000.00	\$13,840.00																									
116	1.8.2.1.3	Travel and Per Diem at CERN	180 days?	Wed 8/1/18	Tue 4/9/19		\$20,000.00	\$20,000.00																									
117	1.8.2.2	Procure 68 Readout / FEM Units	100 days	Thu 8/2/18	Wed 12/19/18		\$322,000.00	\$338,000.00																									
118	1.8.2.3	Procure Optical Links 68	60 days	Fri 8/3/18	Thu 10/25/18		\$42,200.00	\$47,000.00																									
119	1.8.2.4	Procure 34 Common Readout Units	100 days	Mon 8/6/18	Fri 12/21/18		\$181,700.00	\$189,700.00																									
120	1.8.2.5	Procure 100 SamTec Cables	60 days	Tue 8/7/18	Mon 10/29/18		\$27,000.00	\$31,800.00																									
121	1.8.2.6	Procure Ancillary Materials (LVPS and cables etc)	100 days	Wed 8/8/18	Tue 12/25/18		\$60,000.00	\$68,000.00																									
122	1.8.2.7	Procure Cooling Plant	100 days	Fri 7/19/19	Thu 12/5/19		\$117,000.00	\$125,000.00																									
123	1.8.2.8	Procure Assembly Fixtures & Jigs	60 days	Mon 7/22/19	Fri 10/11/19		\$100,000.00	\$104,800.00																									
124	1.8.2.9	Procure End Wheels	100 days	Tue 7/23/19	Mon 12/9/19		\$34,000.00	\$42,000.00																									
125	1.8.2.10	Procure Cylindrical Structural Shells	100 days	Wed 7/24/19	Tue 12/10/19		\$11,000.00	\$19,000.00																									
126	1.8.2.11	Procure Detector Half Barrels	100 days	Thu 7/25/19	Wed 12/11/19		\$13,000.00	\$21,000.00																									
127	1.8.2.12	Procure Service Half Barrels	100 days	Fri 7/26/19	Thu 12/12/19		\$120,000.00	\$128,000.00																									
128	1.8.2.13	Procure Detector and Service Half Barrels	100 days	Mon 7/29/19	Fri 12/13/19		\$21,000.00	\$29,000.00																									
129	1.8.2.14	Procure Two Half Support Structures	100 days	Tue 7/30/19	Mon 12/16/19		\$50,000.00	\$58,000.00																									
130	1.8.3	Assembly and Testing at BNL	425 days	Wed 12/26/18	Tue 8/11/20		\$0.00	\$367,733.33																									
131	1.8.3.1	Test Production FEMS, e-Links, CRU, LV, optical links	90 days	Wed 12/26/18	Tue 4/30/19		\$0.00	\$43,200.00																									
132	1.8.3.2	Test Cooling System	10 days	Fri 12/6/19	Thu 12/19/19		\$0.00	\$8,000.00																									
133	1.8.3.3	Stave Reciept Inspection	10 days	Wed 4/10/19	Tue 4/23/19		\$0.00	\$1,733.33																									
134	1.8.3.4	Individual Stave Readout Test	70 days	Wed 4/24/19	Tue 7/30/19		\$0.00	\$22,400.00																									
135	1.8.3.5	Metrology on Stave Assemblies	70 days	Wed 7/31/19	Tue 11/5/19		\$0.00	\$42,000.00																									
136	1.8.3.6	Assemble full Ladders into Half support	100 days	Tue 12/17/19	Mon 5/4/20		\$0.00	\$38,400.00																									
137	1.8.3.7	Metrology on Final Assembly	10 days	Tue 5/5/20	Mon 5/18/20		\$0.00	\$20,000.00																									
138	1.8.3.8	Test Half detector Assembly	60 days	Wed 5/20/20	Tue 8/11/20		\$0.00	\$192,000.00																									
139	1.8.4	Installation	131 days	Wed 8/12/20	Wed 2/10/21		\$0.00	\$248,400.00																									
144	1.9	Ready for beam	0 days	Wed 2/10/21	Wed 2/10/21		\$0.00	\$0.00																									