

ID	WBS	Task Mode	Task Name	Duration	Start	Finish	Predecessor	Cost	Tech risk	Cost risk	Schedule risk	Design risk	Tech weight	Cost weight	Contingency percent	Contingency cost (Cost2)	Resource Names	Cost3
1	1	🟢	Muon Telescope Detector	846 days	Mon 1/3/11	Mon 3/31/14		\$1,397,700...	0	0	0	0	0	0	20.18	\$282,038...		\$1,679,738....
2	1.1	🟢	Project Office	846 days	Mon 1/3/11	Mon 3/31/14		\$133,100.00	0	0	0	0	0	0	5	\$6,655.00		\$139,755.00
3	1.1.1	🟢	Project Management	846 days	Mon 1/3/11	Mon 3/31/14		\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
4	1.1.2	🟢	BNL OH	846 days	Mon 1/3/11	Mon 3/31/14		\$120,000.00	1	1	2	0	2	1	5	\$6,000.00	BNL_HV[1]	\$126,000.00
5	1.1.3	🟢	Rice OH	739 days	Wed 6/1/11	Mon 3/31/14		\$13,100.00	1	1	2	0	2	1	5	\$655.00	Rice_HV[1]	\$13,755.00
6	1.2	🟢	MRPC modules	521 days	Mon 1/3/11	Mon 12/31/11		\$60,000.00	0	0	0	0	0	0	14	\$8,400.00		\$68,400.00
7	1.2.1	🟢	Design complete	0 days	Thu 3/31/11	Thu 3/31/11		\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
8	1.2.2	🟢	15 modules	131 days	Fri 4/1/11	Fri 9/30/11		\$30,000.00	0	0	0	0	0	0	14	\$4,200.00		\$34,200.00
9	1.2.2.1	🟢	production	87 days	Fri 4/1/11	Sun 7/31/11	7	\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
10	1.2.2.2	🟢	shipping	88 days	Wed 6/1/11	Fri 9/30/11	9	\$30,000.00	1	4	8	0	2	1	14	\$4,200.00	BNL_HV[1]	\$34,200.00
11	1.2.3	🟢	15 modules received	0 days	Fri 9/30/11	Fri 9/30/11	10	\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
12	1.2.4	🟢	50 modules	197 days	Mon 8/1/11	Tue 5/1/12		\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
13	1.2.4.1	🟢	production	176 days	Mon 8/1/11	Sat 3/31/12	9	\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
14	1.2.4.2	🟢	shipping	153 days	Sat 10/1/11	Tue 5/1/12	13	\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
15	1.2.5	🟢	50 modules received	0 days	Tue 5/1/12	Tue 5/1/12	14	\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
16	1.2.6	🟢	65 modules	197 days	Sun 4/1/12	Mon 12/31/11		\$30,000.00	0	0	0	0	0	0	14	\$4,200.00		\$34,200.00
17	1.2.6.1	🟢	production	197 days	Sun 4/1/12	Mon 12/31/11	13	\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
18	1.2.6.2	🟢	shipping	197 days	Sun 4/1/12	Mon 12/31/11	17	\$30,000.00	1	4	8	0	2	1	14	\$4,200.00	BNL_HV[1]	\$34,200.00
19	1.2.7	🟢	65 modules received	0 days	Mon 12/31/11	Mon 12/31/11	18	\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
20	1.3	🟢	Mechanical systems	716 days	Mon 1/3/11	Mon 9/30/11		\$421,600.00	0	0	0	0	0	0	19.62	\$82,715.00		\$504,315.00
21	1.3.1	🟢	design complete	0 days	Sat 4/30/11	Sat 4/30/11	7,22	\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
22	1.3.2	🟢	mounting design complete	0 days	Sat 4/30/11	Sat 4/30/11	7	\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
23	1.3.3	🟢	Purchase tray bed, hanger	414 days	Sat 10/1/11	Wed 5/1/13		\$24,200.00	0	0	0	0	0	0	48	\$11,616.00		\$35,816.00
24	1.3.3.1	🟢	Purchase tray bed, h	88 days	Sat 10/1/11	Tue 1/31/12	22	\$6,900.00	6	10	8	8	2	2	48	\$3,312.00	BNL_HV[1]	\$10,212.00
25	1.3.3.2	🟢	Purchase tray bed, h	87 days	Tue 1/1/13	Wed 5/1/13	24	\$17,300.00	6	10	8	8	2	2	48	\$8,304.00	BNL_HV[1]	\$25,604.00
26	1.3.4	🟢	15 trays	160 days	Sun 5/1/11	Thu 12/8/11		\$16,700.00	0	0	0	0	0	0	18.28	\$3,053.00		\$19,753.00
27	1.3.4.1	🟢	Purchase tray supplies	44 days	Sun 5/1/11	Wed 6/29/11	7,21	\$1,500.00	2	1	8	0	2	1	13	\$195.00	UT_HV[1]	\$1,695.00
28	1.3.4.2	🟢	Purchase tray parts	44 days	Sun 5/1/11	Wed 6/29/11	7,21	\$6,600.00	2	1	8	0	2	1	13	\$858.00	UT_HV[1]	\$7,458.00
29	1.3.4.3	🟢	Purchase tray top	44 days	Sun 5/1/11	Wed 6/29/11	21	\$2,400.00	2	2	8	0	2	2	16	\$384.00	Rice_HV[1]	\$2,784.00
30	1.3.4.4	🟢	Purchase tray mounting	44 days	Sun 5/1/11	Wed 6/29/11	22	\$2,200.00	6	10	8	8	2	2	48	\$1,056.00	BNL_HV[1]	\$3,256.00
31	1.3.4.5	🟢	shipping	6 days	Tue 11/1/11	Tue 11/8/11		\$4,000.00	1	4	8	0	2	1	14	\$560.00	UT_HV[1]	\$4,560.00
32	1.3.4.6	🟢	installation	23 days	Tue 11/8/11	Thu 12/8/11	31,30	\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
33	1.3.5	🟢	12 trays installed	0 days	Thu 12/8/11	Thu 12/8/11	32	\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
34	1.3.6	🟢	50 trays	350 days	Mon 8/1/11	Fri 11/30/12		\$30,000.00	0	0	0	0	0	0	21.44	\$6,432.00		\$36,432.00
35	1.3.6.1	🟢	Purchase tray suppli	66 days	Mon 8/1/11	Mon 10/31/11	13	\$2,500.00	2	4	8	0	2	1	16	\$400.00	UT_HV[1]	\$2,900.00
36	1.3.6.2	🟢	Purchase tray parts	66 days	Mon 8/1/11	Mon 10/31/11	13	\$15,000.00	2	4	8	0	2	1	16	\$2,400.00	UT_HV[1]	\$17,400.00
37	1.3.6.3	🟢	Purchase tray top	66 days	Mon 8/1/11	Mon 10/31/11	13	\$3,600.00	2	4	8	0	2	2	20	\$720.00	Rice_HV[1]	\$4,320.00

ID	WBS	Task Mode	Task Name	Duration	Start	Finish	Predecessor	Cost	Tech risk	Cost risk	Schedule risk	Design risk	Tech weight	Cost weight	Contingency percent	Contingency cost (Cost2)	Resource Names	Cost3
38	1.3.6.4	👉	Purchase tray moun	46 days	Tue 5/1/12	Tue 7/3/12	33	\$4,900.00	6	10	8	8	2	2	48	\$2,352.00	BNL_HV[1]	\$7,252.00
39	1.3.6.5	👉	shipping	6 days	Wed 8/1/12	Wed 8/8/12		\$4,000.00	1	4	8	0	2	1	14	\$560.00	UT_HV[1]	\$4,560.00
40	1.3.6.6	👉	installation	83 days	Wed 8/8/12	Fri 11/30/12	38,39	\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
41	1.3.7	👉	38 trays installed	0 days	Fri 11/30/12	Fri 11/30/12	40	\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
42	1.3.8	👉	65 trays	349 days	Wed 8/1/12	Sat 11/30/13		\$38,300.00	0	0	0	0	0	0	23.61	\$9,042.00		\$47,342.00
43	1.3.8.1	👉	Purchase tray suppli	66 days	Wed 8/1/12	Wed 10/31/12	117	\$3,100.00	2	6	8	0	2	1	18	\$558.00	UT_HV[1]	\$3,658.00
44	1.3.8.2	👉	Purchase tray parts	66 days	Wed 8/1/12	Wed 10/31/12	117	\$20,000.00	2	6	8	0	2	1	18	\$3,600.00	UT_HV[1]	\$23,600.00
45	1.3.8.3	👉	Purchase tray top	66 days	Wed 8/1/12	Wed 10/31/12	117	\$4,100.00	2	6	8	0	2	2	24	\$984.00	Rice_HV[1]	\$5,084.00
46	1.3.8.4	👉	Purchase tray moun	45 days	Mon 4/1/13	Fri 5/31/13	41	\$6,900.00	6	10	8	8	2	2	48	\$3,312.00	BNL_HV[1]	\$10,212.00
47	1.3.8.5	👉	shipping	6 days	Thu 8/1/13	Thu 8/8/13		\$4,200.00	1	4	8	0	2	1	14	\$588.00	UT_HV[1]	\$4,788.00
48	1.3.8.6	👉	installation	83 days	Thu 8/8/13	Sat 11/30/13	47,46	\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
49	1.3.9	👉	45 trays installed	0 days	Sat 11/30/13	Sat 11/30/13	48	\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
50	1.3.10	👉	23 trays delivered to B	0 days	Mon 3/31/14	Mon 3/31/14		\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
51	1.3.11	👉	Tray assembly and tes	391 days	Wed 2/1/12	Wed 7/31/13		\$132,000.00	1	4	8	0	2	1	14	\$18,480.00	UT_ME	\$150,480.00
52	1.3.12	👉	MSTC	846 days	Mon 1/3/11	Mon 3/31/14		\$28,200.00	1	4	4	0	2	1	10	\$2,820.00	Rice_HV[1]	\$31,020.00
53	1.3.13	👉	Gas system	177 days	Sun 4/1/12	Sat 12/1/12		\$17,200.00	0	0	0	0	0	0	14.26	\$2,452.00		\$19,652.00
54	1.3.13.1	👉	Purchase componer	44 days	Wed 8/1/12	Sun 9/30/12		\$6,000.00	1	6	8	0	2	1	16	\$960.00	Rice_HV[1]	\$6,960.00
55	1.3.13.2	👉	Purchase distributio	67 days	Sun 4/1/12	Sat 6/30/12		\$6,200.00	1	6	8	0	2	1	16	\$992.00	BNL_HV[1]	\$7,192.00
56	1.3.13.3	👉	install distribution	67 days	Sun 7/1/12	Sun 9/30/12	54,55	\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
57	1.3.13.4	👉	MSTC	46 days	Mon 10/1/12	Sat 12/1/12		\$5,000.00	1	4	4	0	2	1	10	\$500.00	BNL_HV[1]	\$5,500.00
58	1.3.14	👉	HV	716 days	Mon 1/3/11	Mon 9/30/13		\$135,000.00	0	0	0	0	0	0	21.35	\$28,820.00		\$163,820.00
59	1.3.14.1	👉	Purchase HV supplie	197 days	Sun 1/1/12	Sun 9/30/12		\$19,000.00	1	4	8	0	2	1	14	\$2,660.00	Rice_HV[1]	\$21,660.00
60	1.3.14.2	👉	Purchase HV supplie	195 days	Tue 1/1/13	Mon 9/30/13	59	\$19,000.00	1	8	8	0	2	1	18	\$3,420.00	Rice_HV[1]	\$22,420.00
61	1.3.14.3	👉	Purchase year 1 dist	129 days	Mon 1/3/11	Thu 6/30/11		\$13,000.00	1	4	8	0	2	2	18	\$2,340.00	BNL_HV[1]	\$15,340.00
62	1.3.14.4	👉	Purchase year 2 dist	132 days	Sun 1/1/12	Sat 6/30/12	61	\$36,000.00	1	6	8	0	2	2	22	\$7,920.00	BNL_HV[1]	\$43,920.00
63	1.3.14.5	👉	Purchase year 3 dist	130 days	Tue 1/1/13	Sun 6/30/13	62	\$48,000.00	1	8	8	0	2	2	26	\$12,480.00	BNL_HV[1]	\$60,480.00
64	1.3.15	👉	LV units received	0 days	Sun 9/30/12	Sun 9/30/12		\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
65	1.3.16	👉	LV distribution receive	0 days	Sat 6/30/12	Sat 6/30/12		\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
66	1.3.17	👉	Install LV	88 days	Sun 7/1/12	Tue 10/30/12	64,65	\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
67	1.4	👉	electronics	846 days	Mon 1/3/11	Mon 3/31/14		\$783,000.00	0	0	0	0	0	0	23.53	\$184,268...		\$967,268.00
68	1.4.1	👉	Design complete	0 days	Sat 4/30/11	Sat 4/30/11		\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
69	1.4.2	👉	Board purchase, year	111 days	Sun 5/1/11	Fri 9/30/11		\$25,000.00	0	0	0	0	0	0	20	\$5,000.00		\$30,000.00
70	1.4.2.1	👉	MFTB (65)	67 days	Mon 5/2/11	Tue 8/2/11	68	\$4,500.00	3	3	8	0	2	2	20	\$900.00	Rice_HV[1]	\$5,400.00
71	1.4.2.2	👉	MINO (35)	67 days	Mon 5/2/11	Tue 8/2/11	68	\$16,900.00	3	3	8	0	2	2	20	\$3,380.00	Rice_HV[1]	\$20,280.00
72	1.4.2.3	👉	MTRG(10)	67 days	Mon 5/2/11	Tue 8/2/11	68	\$3,600.00	3	3	8	0	2	2	20	\$720.00	Rice_HV[1]	\$4,320.00
73	1.4.3	👉	Board purchase, year	132 days	Sat 10/1/11	Mon 4/2/12		\$202,400.00	0	0	0	0	0	0	18.54	\$37,520.00		\$239,920.00
74	1.4.3.1	👉	MFTB (65)	67 days	Sat 10/1/11	Mon 1/2/12	70	\$4,500.00	3	4	8	0	2	2	22	\$990.00	Rice_HV[1]	\$5,490.00
75	1.4.3.2	👉	MINO (45)	67 days	Sat 10/1/11	Mon 1/2/12	71	\$19,100.00	3	4	8	0	2	2	22	\$4,202.00	Rice_HV[1]	\$23,302.00
76	1.4.3.3	👉	MTRG(10)	67 days	Sat 10/1/11	Mon 1/2/12	72	\$3,600.00	3	4	8	0	2	2	22	\$792.00	Rice_HV[1]	\$4,392.00
77	1.4.3.4	👉	TDIG	132 days	Sat 10/1/11	Mon 4/2/12		\$124,800.00	1	4	8	0	2	2	18	\$22,464.00	Rice_HV[1]	\$147,264.00
78	1.4.3.5	👉	TCPU	132 days	Sat 10/1/11	Mon 4/2/12		\$50,400.00	1	4	8	0	2	2	18	\$9,072.00	Rice_HV[1]	\$59,472.00
79	1.4.4	👉	Board purchase, year	131 days	Mon 10/1/11	Mon 4/1/13		\$150,300.00	0	0	0	0	0	0	22.68	\$34,086.00		\$184,386.00

ID	WBS	Task Mode	Task Name	Duration	Start	Finish	Predecessor	Cost	Tech risk	Cost risk	Schedule risk	Design risk	Tech weight	Cost weight	Contingency percent	Contingency cost (Cost2)	Resource Names	Cost3
80	1.4.4.1	🚀	MINO (50)	67 days	Mon 10/1/11	Tue 1/1/13	74	\$21,300.00	3	6	8	0	2	2	26	\$5,538.00	Rice_HV[1]	\$26,838.00
81	1.4.4.2	🚀	MTRG(12)	67 days	Mon 10/1/11	Tue 1/1/13	75	\$4,200.00	3	6	8	0	2	2	26	\$1,092.00	Rice_HV[1]	\$5,292.00
82	1.4.4.3	🚀	TDIG	131 days	Mon 10/1/11	Mon 4/1/13	76	\$124,800.00	1	6	8	0	2	2	22	\$27,456.00	Rice_HV[1]	\$152,256.00
83	1.4.5	🚀	Board purchase, year 4	45 days	Tue 10/1/11	Mon 12/2/11		\$24,000.00	0	0	0	0	0	0	5	\$1,200.00		\$25,200.00
84	1.4.5.1	🚀	HPTDC	45 days	Tue 10/1/11	Mon 12/2/11	68	\$24,000.00	1	1	2	0	2	1	5	\$1,200.00	Rice_HV[1]	\$25,200.00
85	1.4.6	🚀	Connections	438 days	Sun 5/1/11	Tue 1/1/13		\$25,000.00	0	0	0	0	0	0	22.48	\$5,620.00		\$30,620.00
86	1.4.6.1	🚀	Connections (36)	67 days	Mon 5/2/11	Tue 8/2/11	68	\$7,000.00	1	4	8	0	2	2	18	\$1,260.00	Rice_HV[1]	\$8,260.00
87	1.4.6.2	🚀	Connections (42)	66 days	Sat 10/1/11	Fri 12/30/11	86	\$8,000.00	1	6	8	0	2	2	22	\$1,760.00	Rice_HV[1]	\$9,760.00
88	1.4.6.3	🚀	Connections (52)	67 days	Mon 10/1/11	Tue 1/1/13	87	\$10,000.00	1	8	8	0	2	2	26	\$2,600.00	Rice_HV[1]	\$12,600.00
89	1.4.7	🚀	Trigger/DAQ	391 days	Mon 10/1/11	Mon 3/31/14		\$74,300.00	0	0	0	0	0	0	18.63	\$13,842.00		\$88,142.00
90	1.4.7.1	🚀	THUB	195 days	Tue 1/1/13	Mon 9/30/13		\$20,000.00	1	6	8	0	2	2	22	\$4,400.00	UT_HV[1]	\$24,400.00
91	1.4.7.2	🚀	TSER	195 days	Tue 1/1/13	Mon 9/30/13		\$5,000.00	1	6	8	0	2	2	22	\$1,100.00	UT_HV[1]	\$6,100.00
92	1.4.7.3	🚀	DRORC/SIU	130 days	Tue 10/1/11	Mon 3/31/14		\$13,300.00	1	4	8	0	2	1	14	\$1,862.00	BNL_HV[1]	\$15,162.00
93	1.4.7.4	🚀	QT	131 days	Mon 10/1/11	Mon 4/1/13		\$36,000.00	1	4	8	0	2	2	18	\$6,480.00	BNL_HV[1]	\$42,480.00
94	1.4.8	🚀	Purchase, test, install:	762 days	Sun 5/1/11	Mon 3/31/14		\$210,000.00	0	0	0	0	0	0	38	\$79,800.00		\$289,800.00
95	1.4.8.1	🚀	Board purchase, test	762 days	Sun 5/1/11	Mon 3/31/14	68	\$210,000.00	5	10	8	0	2	2	38	\$79,800.00	Rice_EE	\$289,800.00
96	1.4.8.2	🚀	shedule contnigency	130 days	Tue 10/1/11	Mon 3/31/14		\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
97	1.4.9	🚀	MSTC	762 days	Sun 5/1/11	Mon 3/31/14		\$72,000.00	1	4	4	0	2	1	10	\$7,200.00	Rice_HV[1]	\$79,200.00
98	1.4.10	🚀	Board purchased and tested, year 1	0 days	Fri 9/30/11	Fri 9/30/11		\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
99	1.4.11	🚀	Board purchased and tested, year 2	0 days	Sat 6/30/12	Sat 6/30/12		\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
100	1.4.12	🚀	Board purchased and tested, year 3	0 days	Sun 6/30/13	Sun 6/30/13		\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00
101	1.4.13	🚀	Board purchased and tested, year 4	0 days	Fri 1/31/14	Fri 1/31/14		\$0.00	0	0	0	0	0	0	#ERROR	\$0.00		\$0.00