

WBS	Name	Cost								
<b>1.2</b>	<b>Calorimeter Upgrades</b>	<b>\$956,607.00</b>								
<b>1.2.1</b>	<b>Central Preshower</b>	<b>\$701,736.00</b>								
<u>Notes</u>										
Summary task for the Central Preradiator detector										
1.2.1.1	Research and Development	\$101,234.00								
<i>ID</i>	<i>Resource Name</i>	<i>Units</i>	<i>Work</i>	<i>Delay</i>	<i>Start</i>	<i>Finish</i>				
2	FNALR&D	0%	0 hrs	0 days	Wed 5/1/02	Wed 5/1/02				
4	Italy - In Kind	0%	0 hrs	0 mons	Wed 5/1/02	Wed 5/1/02				
5	Japan - In Kind	0%	0 hrs	0 mons	Wed 5/1/02	Wed 5/1/02				
<i>ID</i>	<i>Resource Name</i>	<i>Units</i>	<i>Cost</i>	<i>Baseline Cost</i>	<i>Act. Cost</i>	<i>Rem. Cost</i>				
2	FNALR&D	0%	\$55,672.00	\$0.00	\$0.00	\$55,672.00				
4	Italy - In Kind	0%	\$18,000.00	\$0.00	\$0.00	\$18,000.00				
5	Japan - In Kind	0%	\$27,562.00	\$0.00	\$0.00	\$27,562.00				
<u>Notes</u>										
WBS Definition-										
Estimated costs of building prototype detectors and system tests.										
Labor BOE-										
N/A										
M&S BOE-										
U.S. \$55,672 combined R+D proposals from ANL and MSU to design and build prototype detectors.										
Japan \$27,562 purchase of 20 multichannel phototubes for testing.										
Italy \$18,000 purchase of scintillator and fibers for prototype detector tests										
<b>1.2.1.2</b>	<b>Procure parts</b>	<b>\$465,426.00</b>								
<u>Notes</u>										
Summary task for the procurement of all the parts needed for the detector										
<b>1.2.1.3</b>	<b>CPR Detector Assembly</b>	<b>\$90,648.00</b>								
<u>Notes</u>										
Summary task for the assembly of the CPR modules.										
<b>1.2.1.4</b>	<b>CCR Detector Assembly</b>	<b>\$15,328.00</b>								
<u>Notes</u>										
Summary task for the construction of the Central Crack chamber modules.										
<b>1.2.1.5</b>	<b>Fiber Bundle Assembly</b>	<b>\$29,100.00</b>								
<i>ID</i>	<i>Resource Name</i>	<i>Units</i>	<i>Work</i>	<i>Delay</i>	<i>Start</i>	<i>Finish</i>	<i>Cost</i>	<i>Baseline Cost</i>	<i>Act. Cost</i>	<i>Rem. Cost</i>
1	FNALEQ	0%	0 hrs	0 mons	Fri 5/16/03	Fri 7/30/04	\$0.00	\$0.00	\$0.00	\$0.00

WBS	Name	Cost
<b>"Fiber Bundle Assembly" continued</b>		
	<u>Notes</u>	
	Physicist estimate.	
<b>1.2.1.6</b>	<b>Physicist or Student Labor</b>	<b>\$0.00</b>
<b>1.2.1.7</b>	<b>Milestones</b>	<b>\$0.00</b>
<b>1.2.2</b>	<b>Electromagnetic timing</b>	<b>\$254,871.00</b>
<b>1.2.2.1</b>	<b>Research and Development</b>	<b>\$12,192.00</b>
<b>1.2.2.2</b>	<b>Purchase parts for components and Produce</b>	<b>\$242,679.00</b>
	<u>Notes</u>	
	There are a number of components for this project they are:	
	CEM Splitter harnesses, PEM cable harnesses, TB, ASD's, ASD->TDC cables and TDC's. We itemize each part here.	
	Parts = 227,128 Labor = 15,552 Parts & Labor = 242,680 Recycling = 83,840	
<b>1.2.2.3</b>	<b>Management Milestones</b>	<b>\$0.00</b>