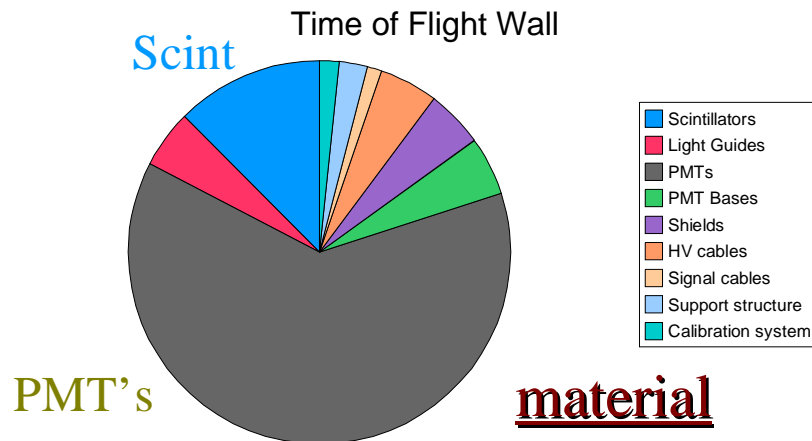


Particle ID Costs



TOF	820.5 Channels		400	
Materials	Item	Number	Unit Cost (\$)	Cost (\$K)
	Scintillators	160	500	80
	Light Guides	320	100	32
	PMTs	320	1250	400
	PMT Bases	320	100	32
	Shields	320	100	32
	HV cables	320	100	32
	Signal cables	320	25	8
	Support structure			15
	Calibration system			10
SubTotal				641
Labor	Item	Number	Unit Cost (\$)	Cost (\$K)
	Technician Yrs	2	30000	60
	Machinist Wks	20	1500	30
	Student Hrs	1000	9	9
	Shipping			5
	Subtotal (Fringe)			90
	Fringe (%)		29	26
	Subtotal (Overhead)			130
	Overhead (%)		38	45
SubTotal				180
Total				821

Cerenk	623.5 Channels		38	
Materials	Item	Number	Unit Cost (\$)	Cost (\$K)
	Mirrors	38	630	24
	Mirror molds	3	2000	6
	Tooling			2
	Collector assemblies (material)	12	500	6
	Collector mirrors	38	290	11
	Lenses	12	250	3
	PMTs and bases	38	1971	75
	HV cables	38	100	4
	Signal cables	38	100	4
	Shields	38	200	8
	Gas (Cubic m C4F10)	36	380	14
	Gas system			50
	Calibration System			10
	Support structure			38
SubTotal				245
Labor	Item	Number	Unit Cost (\$)	Cost (\$K)
	Technician Yrs	2	30000	60
	Machinist Wks	55	1500	83
	Student Hrs	4000	9	36
	Shipping			10
	Subtotal (Fringe)			179
	Fringe (%)		32	57
	Subtotal (Overhead)			246
	Overhead (%)		54	183
SubTotal				378
Total				623

