PCT Sample BOM		April 05, 2006 - UC BERKELEY PCT TEAM													
							100K total price								
		Component Description	Qty Required	Functions Performed	Example Part	100K unit price	Equiv. Prog. T-stat	Addn'l Interfaces	Quiescent (uA)	Active (uA)	Duty Cycle	Average (uA)	Note		
Main Thermostat	Embedded Microcontroller	Embedded Low Power Microcontroller with 4K SRAM, 64K Flash, SPI, digital I/O, UART, LCD driver	1	Thermostat Control SW	ATmega649, MSP430FG439-60x2	$4 - $7	$5.00		0.80	2000.00	0.020	40.78	Running at 8 MHz active		
				Comms Functions SW											
				Exp Port Functions SW											
				Expansion Port I/F SW											
				U/I Functions SW											
				Infrastructure SW											
				Contact interface driver HW (digital output - 3)											
				Real Time Clock											
				U/I display drivers											
				U/I input I/F HW (digital input)											
				Module SubTotal			**$5.00**								
	Power Supply	3 x AA Battery Holders	1	Power supply		$1.00	$1.00						1800 mAh / cell		
		Support circuitry	1												
				Module SubTotal			**$1.00**								
	Mechanical	3 piece plastic enclosure	1			$1.75	$1.75								
		DB9	1	Base Plate Connector		$0.50		$0.50							
				Module SubTotal			**$1.75**	**$0.50**							
	Logs	Serial Flash for Logs	1	Logs		$0.75		$0.75							
				Module SubTotal			**$0.00**	**$0.75**							
	Miscellaneous	PCB	1			$0.25	$0.25								
		Thermistor	1	Temp Sensor HW		$0.50	$0.50								
		Misc Components	1			$1.00	$1.00								
				Module SubTotal			**$1.75**								
HVAC Interface	HVAC I/F Electronics	24VAC Triacs	3	HVAC I/F contacts HW		$0.20	$0.60								
		FET based Triac drivers	3			$0.15	$0.45			50.00	0.020	1.00			
				Module SubTotal			**$1.05**								
	Base Plate	Base plate (including PCB)	1			$1.00		$1.00							
		Main unit connector (DB9)	1			$0.25		$0.25							
		Screw terminals	8			$0.05		$0.40							
				Module SubTotal				**$1.65**							
Human-Machine Interface		2 sq in Custom LCD Panel	1	Comms State HW		$1.25	$1.25			8.00	1.000	8.00			
				U/I Output HW											
		Alert Sounder	1	Alert U/I		$0.10		$0.10		10000.00		0.38	20 min / year		
		Alert LED	1	Alert U/I		$0.05		$0.05		10000.00		0.38	20 min / year		
		Push buttons	6	U/I input HW		$0.15	$0.90								
				Module SubTotal			**$2.15**	**$0.15**							
Expansion Interface		SDIO Connector	1	Interface HW		$1.00		$1.00							
				Module SubTotal			**$0.00**	**$1.00**							
Communication Interface		RDS Communications Module	1	Radio HW	Si4700/01	$3.25		$3.25	4.00	17600.00	0.002	33.33	500 ms /5 min		
				Baseband HW											
		Support electronics	1			$0.15		$0.15							
		Antenna	1	Antenna		$0.05		$0.05							
				Module SubTotal			**$0.00**	**$3.45**							
					TOTAL BOM COST		**$12.70**	**$7.50**		Average Total Current		83.87	21461.35	hours	
							$20.20						2.45	years	