FRC/BC Schedule

		05-Oct-00 Schedule		30-Mar-01
Task	**day**	**Start**	**Finish**	**Status**
Prototype	**214**	**08/01/00**	**05/25/01**	
FPGA coding	66	08/01/00	10/31/00	✓
Order components	44	09/15/00	11/15/01	✓
Layout	45	11/01/00	01/02/01	✓
Fabrication	28	01/03/01	02/09/01	03/08/01
Evaluation	75	02/12/01	05/25/01	**! ! !**
Preproduction	**141**	**02/12/01**	**09/05/01**	
FPGA coding	75	02/12/01	05/25/01	
Order comps (final)	44	03/05/01	05/03/01	**???**
Layout	30	04/16/01	05/25/01	
Fabrication	28	05/28/01	07/04/01	
Evaluation	45	07/05/01	09/05/01	
Production	**73**	**09/06/01**	**12/17/01**	
Fabrication	28	09/06/01	10/15/01	
Evaluation	45	10/16/01	12/17/01	
Mechanics (stiffening)	**74**	**11/01/00**	**02/12/01**	**???**
CPU Code Develop	**180**	**11/27/00**	**08/03/01**	**! ! !**
Basic utilities	60	11/27/00	02/16/01	after
Prototype code	90	11/27/00	03/30/01	PCI code
Final accept test	90	04/02/01	08/03/01	

Current Status

- Received prototype (bare) FRC & BC boards on 08-Mar-01
- Populating FRC in steps:
  - at each step test functionality of components

1.	Power	ok
2.	Clock distrib	ok
3.	Resets	ok
4.	PCI FPGAs	~done
5.	TRDF,SCLF,BM FPGAs	soon

- PCI Tests
  - modify BU's PCI device driver to work with FRC
  - currently can read and write to configuration and memory space
    - single write mode
- BC Assembly/Testing
  - need to build another interface board
    - (to interface to the interface board we just bought)

FRC/BC Costs

		unit costs		unit	
Item	No	Oct-00	Mar-01	MRI	Spent
FRC DB	10	$1783	$1564	$5400	$12464
BC DB	80	$731	$896		
Crate	8	$4690	$4690	$10000	$38670
Backplane	8	?	?		$0
Cooling	8	?	?		$0
Test Stand	1	$15000	$15000	$15000	$395
CPU, etc	8	$2850	*($3165)*	$5000	*($24016)*
Engineer	1	$161250	$161250	$161250	yes
Student	1	$41005	$41005	$41005	yes
Total		$365735	$349621	$374900	$51529

Minimal Changes from Oct-00

- FRC: use 2 10K30's instead of all 10K50's
- BC: DPRAM went from $52 to $91 / chip

Total Includes

- all BCs for everyone

board costs updated:
03-Apr-01

Total Does not Include

- CPUs (paid for by FSU + French)
- VTMs (paid for by BU)
- Motherboard, SCL mezz, Link Tx's
- estimate for FRC/BC fab/assemb not final

Cost Details

Item	Unit Cost	No.	Prod Costs	Other Costs		Total Cost	Spent	MRI
BC DB	$ 896	80	$ 71,710	$ 6,022	[2]	**$ 77,732**	$ 2,337	$ 67,600
FRC DB	$ 1,564	10	$ 15,641	$ 15,632	[1]	**$ 31,273**	$ 10,127	
Motherboard		10	$ -		[3]	**$ -**		
SCL Mezz.		10	$ -		[4]	**$ -**		
Link Tx		50	$ -		[5]	**$ -**		
VTM		10	$ -		[6]	**$ -**		
Crate	$ 4,690	8	$ 37,520	$ 841	[7]	**$ 38,361**	$ 38,670	$ 60,000
Backplane		8	$ -		[8]	**$ -**		
Power/Cooling		8	$ -		[9]	**$ -**		
Test Stand						**$ -**	$ 395	$ 15,000
CPU	$ 2,415	8	$ 19,320	$ -	[10]	**$ -**		
license	$ 400	8	$ 3,200	$ -		**$ -**		
extender	$ 350	10	$ 3,496	$ -		**$ -**		
Bit3						**$ -**		$ 30,000
Engineer						**$ 161,250**		$ 161,300
Student						**$ 41,005**		$ 41,000
Total			**$ 79,178**	**$ 16,472**		**$ 349,621**	**$ 51,529**	**$ 374,900**

FRC

Item	Supplier/Chip	Unit Cost	#/Brd	Cost/Brd	All Cost	Prototype	Conting	Total Cost	Spent
FPGA	Altera - 10K30	$ 86	2	$ 172	$ 1,720	$ 344	$ -	**$ 2,064**	
FPGA	Altera - 10K50	$ 193	4	$ 772	$ 7,720	$ 2,016	$ -	**$ 9,736**	$ 5,788.77
prom	Altera-epc2LC20	$ 26	2	$ 51	$ 510	$ 151	$ -	**$ 661**	
Connector	AMP-120527-1	$ 4	9	$ 38	$ 383	$ 77	$ -	**$ 459**	
Connector	AMP-120527-2	$ 5	1	$ 5	$ 48	$ 10	$ -	**$ 57**	
Other Chips				$ 58	$ 4,647	$ -	$ 9,294	**$ 13,942**	$ 98.00
Misc								**$ 1,000**	$ 899.50
PCB	tech circuits	$ 208	1	$ 208	$ 2,081	$ 416	$ 624	**$ 3,121**	$ 2,190.80
Assembly	osda	$ 210	1	$ 210	$ 2,100	$ 420	$ 630	**$ 3,150**	
Mecahnics	nevis			$ 50	$ 500	$ 1,500	$ 150	**$ 2,150**	$ 1,150
Totals				**$ 1,564**	$ 19,708	$ 4,933	$ 10,699	**$ 36,340**	**$ 10,127**

BC

Item	Supplier/Chip	Unit Cost	#/Brd	Cost/Brd	All Cost	Prototype	Conting	Total Cost	Spent
FPGA	Altera - 10K30	$ 80	1	$ 80	$ 6,400	$ 336	$ -	**$ 6,736**	
FPGA	Altera - 10K50	$ 180	1	$ 180	$ 14,400	$ 756	$ -	**$ 15,156**	
prom	Altera-epc2LC20	$ 26	1	$ 26	$ 2,040	$ 76	$ -	**$ 2,116**	
FIFO	IDT72V36100	$ 109	1	$ 109	$ 8,755	$ 328	$ -	**$ 9,084**	
DPRAM	IDT70V9099	$ 91	4	$ 363	$ 29,024	$ 1,088	$ -	**$ 30,112**	
Connector	AMP-120527-1	$ 4	3	$ 13	$ 1,020	$ 38	$ -	**$ 1,058**	
Other Chips				$ 31	$ 2,495	$ 94	$ 749	**$ 3,337**	
PCB	tech circuits	$ 50	1	$ 50	$ 3,976	$ 149	$ 1,193	**$ 5,318**	$ 2,337.00
Assembly	osda	$ 45	1	$ 45	$ 3,600	$ 135	$ 1,080	**$ 4,815**	
Totals				**$ 896**	$ 71,710	$ 3,000	$ 3,021	**$ 77,732**	**$ 2,337**