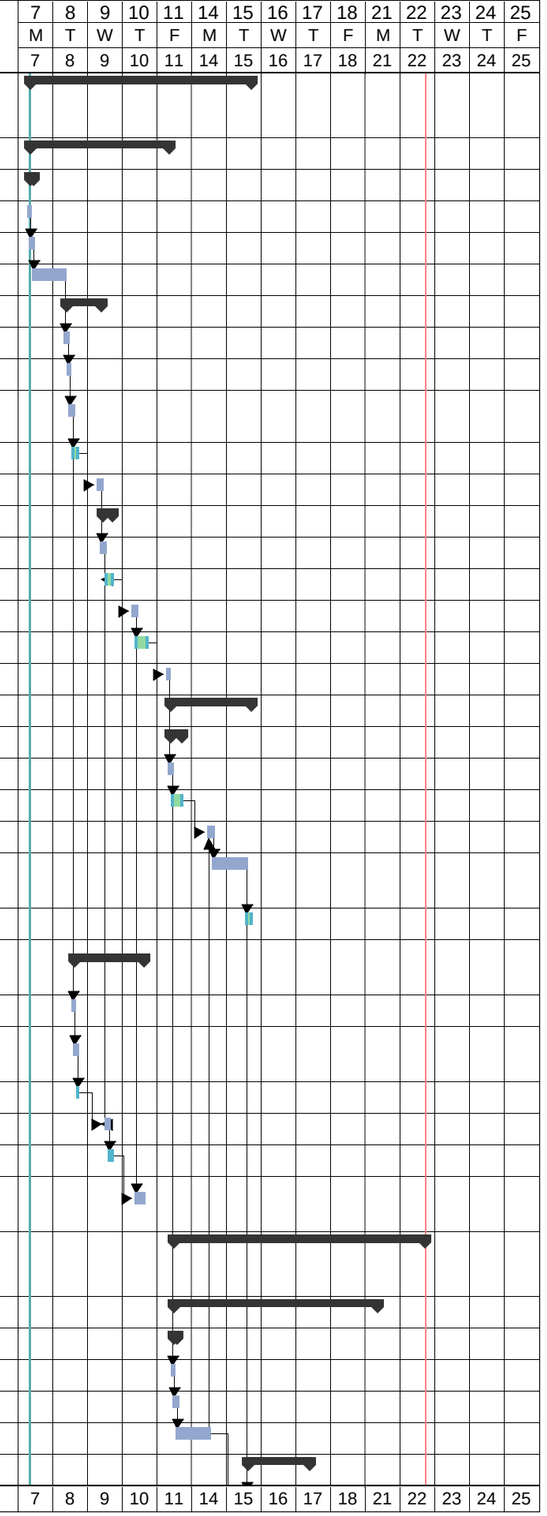
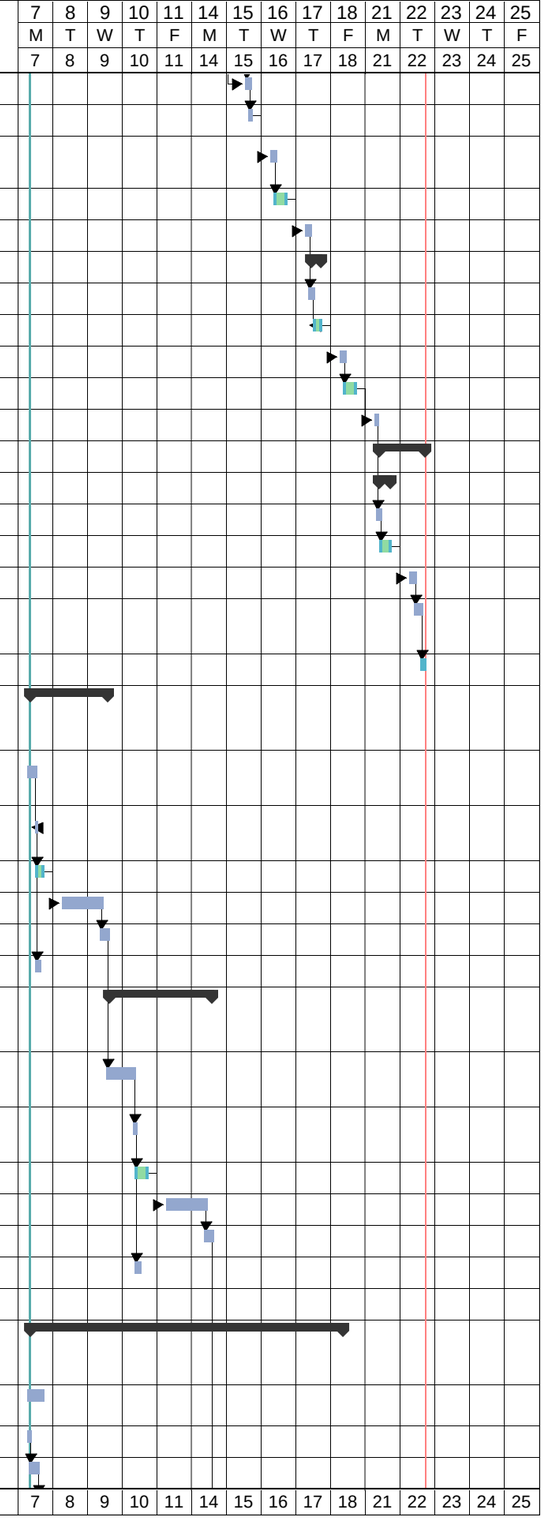
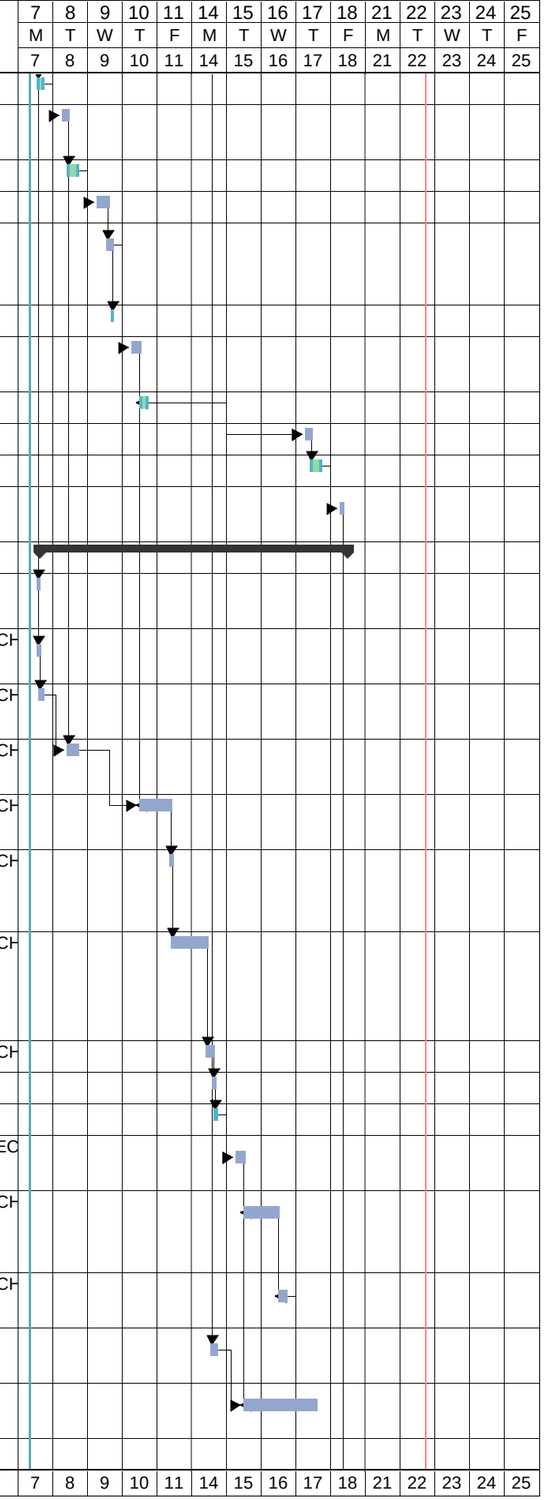
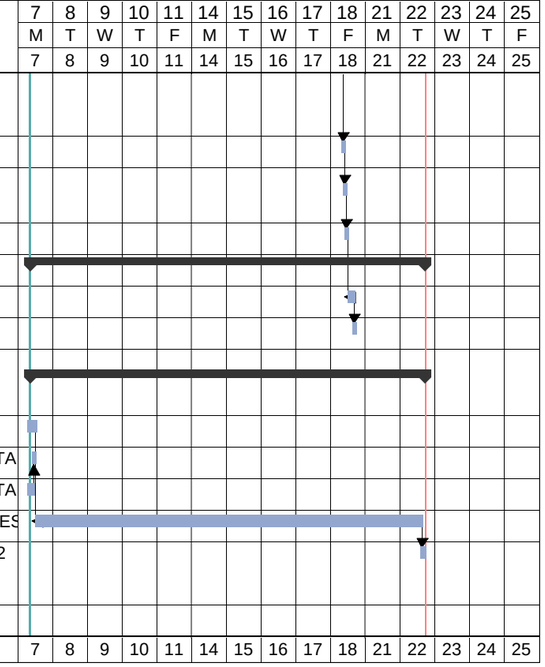
	Activity Name	Duration (Work Hours)	Resources Assigned
1	**CATHODE TYPE1 PRODUCTION**	**56.00**	
2	Foil preparation	**33.00**	
3	*inspect/test carhode*	**2.50**	
4	visual	0.50	TECH1, TECH2, TABLE 4A
5	continuity/resistance	2.00	TECH1, TECH2, TABLE 4A
6	*cutting cathode*	6.00	TECH1, TECH2, TABLE 4B
7	*aligning and gluing cathode*	**9.50**	
8	align panels	2.00	TECH1, TECH2, TABLE 4C
9	apply vinyl tape to joint	1.00	TABLE 4C, TECH1, TECH2
10	flip foil and apply kapton tape	2.00	TABLE 4C, TECH1, TECH2
11	***dwell glue harden	2.50	TABLE 4C
12	flip foil and remove vinyl	2.00	TECH1, TECH2
13	*gluing on transfer ring cath*	**6.00**	
14	apply glue and weight ring	2.00	TABLE 4L, transring 1, TECH1, TECH2
15	***dwell glue harden	4.00	TABLE 4L
16	*initial tensioning*	2.00	TENS 4G, TECH1, TECH2, transring 1
17	****dwell to relax foil*	6.00	TENS 4G, transring 1
18	*final tensioning*	1.00	TECH3, TENS 4G, transring 1
19	Kapton layer final assembly	**23.00**	
20	*Gluing the frame to the foil*	**7.00**	
21	gluing and weighting assy	2.00	TENS 4F, TECH1, TECH2, transring 2
22	***dwell glue harden	5.00	transring 2, TENS 4F
23	*Cutting open foil holes/slots*	3.00	TABLE 4E, TECH1
24	*Create kapton ground flaps and panel -panel connections*	6.50	TECH1, TABLE 4L
25	****dwell glue harden*	3.00	
26	**Ground plane prep and final assembly**	**16.50**	
27	*Cutting the aluminzed mylar*	0.50	TABLE 4B, TECH2, TECH1
28	*Gluing the mylar to the transfer ring*	2.00	TABLE 4D, transring 3, TECH1, TECH2
29	****dwell glue harden*	0.00	TABLE 4D, transring 3
30	*Tensioning/gluing*	2.00	transring 3, TENS 4F, TECH1, TECH2
31	****dwell glue harden*	2.00	TENS 4F, transring 3
32	*Trimming and forming ground connections*	4.00	TABLE 4L, TECH1
33	**CATHODE TYPE2 PRODUCTION**	**61.00**	
34	Foil preparation	**46.00**	
35	*inspect/test carhode #1*	**2.50**	
36	visual	0.50	TECH1, TECH2, TABLE 4A
37	continuity/resistance	2.00	TECH1, TECH2, TABLE 4A
38	*cutting cathode #1*	6.00	TECH1, TECH2, TABLE 4B
39	*aligning and gluing cath#3*	**13.00**	



	Activity Name	Duration (Work Hours)	Resources Assigned
40	align panels	2.00	TECH1, TECH2, TABLE 4C
41	apply vinyl tape to joint	1.00	TABLE 4C, TECH1, TECH2
42	flip foil and apply kapton tape	2.00	TABLE 4C, TECH1, TECH2
43	***dwell glue harden	6.00	TABLE 4C
44	flip foil and remove vinyl	2.00	TECH1, TECH2
45	*gluing on transfer ring cath#2*	**6.00**	
46	apply glue and weight ring	2.00	TABLE 4L, transring 1, TECH1, TECH2
47	***dwell glue harden	4.00	TABLE 4L
48	*initial tensioning*	2.00	TENS 4G, TECH1, TECH2, transring 1
49	*****dwell to relax foil*	6.00	TENS 4G, transring 1
50	*final tensioning*	1.00	TECH3, TENS 4G, transring 1
51	Kapton layer final assembly#1	**15.00**	
52	*Gluing the frame to the foil*	**7.00**	
53	gluing and weighting assy	2.00	TENS 4F, TECH1, TECH2, transring 2
54	***dwell glue harden	5.00	transring 2, TENS 4F
55	*Cutting open foil holes/slots*	3.00	TABLE 4E, TECH1
56	*Create kapton ground flaps and panel -panel connections*	3.00	TECH1, TABLE 4L
57	****dwell glue harden*	2.00	
58	**Rigid-flex work on CATHODE TYPE1**	**21.00**	
59	Rigid-flex testing per GLUEX document 1328-V1	4.00	ELEC1, TABLE 5A, LAZY SUSAN2/SCOPE2
60	epoxy fillet connector on Rigid-flex	0.50	ELEC1, TABLE 5A, LAZY SUSAN2/SCOPE2
61	****dwell glue harden*	3.50	LAZY SUSAN2/SCOPE2, TABLE 5A
62	Rigid-flex soldering/flux clean	10.00	ELEC1, TABLE 5A, LAZY SUSAN2/SCOPE2
63	Test connections/repair	3.00	ELEC1, TABLE 5A, LAZY SUSAN2/SCOPE2
64	Epoxy Rigid-flex to cathode	2.00	ELEC1, TABLE 4D
65	**Rigid-flex work on CATHODE TYPE2**	**24.00**	
66	Rigid-flex testing per GLUEX document 1328-V1	4.00	ELEC1, TABLE 5A, LAZY SUSAN2/SCOPE2
67	epoxy fillet connector on Rigid-flex	0.50	ELEC1, TABLE 5A, LAZY SUSAN2/SCOPE2
68	****dwell glue harden*	6.50	LAZY SUSAN2/SCOPE2, TABLE 5A
69	Rigid-flex soldering/flux clean	10.00	ELEC1, TABLE 5A, LAZY SUSAN2/SCOPE2
70	Test connections/repair	3.00	ELEC1, TABLE 5A, LAZY SUSAN2/SCOPE2
71	Epoxy Rigid-flex to cathode	2.00	ELEC1, TABLE 4D
72			
73	**WIRE FRAME PRODUCTION**	**73.00**	
74	Inspect/test/repair PCBs (F117)	8.00	ARMAND
75	Dry fit pcbs to gluing fixture	1.00	TABLE 6A, PIN JIG1, TECH3
76	Apply glue and clamp PCBs	4.00	TABLE 6A, PIN JIG1, TECH3, TECH4



	Activity Name	Duration (Work Hours)	Resources Assigned
77	***dwell glue harden	3.00	TABLE 6A
78	Inspect surface, epoxy fill voids #4	3.00	TABLE 6B, TECH3
79	***dwell glue harden	5.00	TABLE 6B
80	sand/polish joints #3	5.00	TABLE 6B, TECH3
81	Laminate the G10/Rohacell ring to the PCB, then vacuum bag#2	3.00	TABLE 6A, PIN JIG1, TECH3, TECH4
82	***dwell glue harden	0.00	TABLE 6A, PIN JIG1
83	Ream holes,seal edge \of Rohacell and back of PCB #1	4.00	TABLE 6B, TECH3, TECH4
84	***dwell glue harden	4.00	TABLE 6A, PIN JIG1
85	cut/glue Rohacell ring	2.50	TABLE 6F, ROHACELL GLUE JIG, TECH3
86	***dwell glue harden	5.50	TABLE 6F, ROHACELL GLUE JIG
87	finish and clean ring for entry to cleanroom.	1.00	TABLE 6B, TECH3
88	**WIRE WINDING**	**71.00**	
89	clean wire frame after entry in gown area	0.50	TECH3
90	Attach frame to stronback and prepare to wind	1.00	WIND 5C, WINDING STRONBACK1, TECH3, TECH
91	String and tension all wires -part1	1.50	WIND 5C, WINDING STRONBACK1, TECH3, TECH
92	String and tension all wires -part2	5.00	WIND 5C, WINDING STRONBACK1, TECH3, TECH
93	String and tension all wires -part3	5.50	WIND 5C, WINDING STRONBACK1, TECH3, TECH
94	Raise strongback and position. LOCK STRONGBACK IN PLACE.	1.00	WINDING STRONBACK1, WIND 5C, TECH3, TECH
95	Press wires with weights OR pinstipe tape applied with vacuum tweezers (camera confirm no motion)	8.00	WINDING STRONBACK1, WIND 5C, TECH3, TECH
96	Scan wire position and correct?	4.00	WINDING STRONBACK1, WIND 5C, TECH3, TECH
97	Apply epoxy ring to fix wire	1.00	WINDING STRONBACK1, WIND 5C, TECH3
98	***dwell glue harden	0.50	WINDING STRONBACK1, WIND 5C
99	Solder wires and clean flux as you go- camera confirm bond	4.00	WINDING STRONBACK1, WIND 5C, TECH3, ELEC
100	Frequency to tension measurement-(log/reject/ accept)	8.00	WINDING STRONBACK1, WIND 5C, TECH3, TECH
101	Cut wires and remove tape. Thoroughly clean board.	4.00	WINDING STRONBACK1, WIND 5C, TECH4, TECH
102	Inspect and initial electrical tests of board-part1	3.00	LAZY SUSAN1/SCOPE1, TABLE 5B, ELEC1
103	Inspect and initial electrical tests of board-part2	17.00	LAZY SUSAN1/SCOPE1, TABLE 5B, ELEC1
104			



	Activity Name	Duration (Work Hours)	Resources Assigned
105	**GAS SPACER ASSEMBLY**		
106	make three Orings	1.00	TECH5, TABLE 6B
107	assemble on gluing jig and epoxy	1.00	TECH6, TABLE 6B
108	drill open holes	1.00	TECH5, TABLE 6B
109	Gas tightness testing	**96.00**	
110	Gas test for leaks	3.00	TABLE 2A, TECH3, TECH4
111	leak test fittings	1.00	TECH6, TABLE 6B
112	**SINGLE DRIFT CELL TESTING**	**96.00**	
113	****dwell to purge*	4.00	
114	*grounding*	1.00	RIGID TEST GUS, SCIENTIST 1, SCIENTIST 2, TA
115	*leak testing/correction*	3.00	RIGID TEST GUS, SCIENTIST 1, SCIENTIST 2, TA
116	*apply high voltage and test*	90.00	SCIENTIST 1, SCIENTIST 2, TABLE 2A, RIGID TES
117	*dissassemble and add to stack*	2.00	TABLE 2B, PIN JIG2, SCIENTIST 1, SCIENTIST 2
118	**STACK TESTING ????**