**727 B.C. Floor plan:**

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**Procedures:**

1. **Cathode layer production**  (# people, hours)
2. Foil preparation
3. Inspect/test(2,2.5)
   1. Visual (2,.5) Fernando
   2. Continuity/resistance (2,2)<<GLUEX DOC 1082-V1
4. cutting (2,6)1.5hours per cut, 4 cuts
5. aligning and gluing (2,5)
   1. align panels(2,2)
   2. Apply vinyl tape to joint(2,1)
   3. Flip foil and apply Kapton tape (2,2)
6. gluing on transfer ring (2,2 )
7. Initial tensioning (2, 2 )
8. Final tensioning 24hrs later (1,1)
9. Cathode layer assembly
10. Gluing the frame to the foil (2,2 )
11. Cutting open foil holes/slots (1,4)
12. Create Kapton ground flaps(1,3 )
13. Attach/strain relieve ground wires (1,2)<<GROUNDS NOW SEPARATE FROM MYLAR
14. Ground plane preparation and final assembly (if cathode type 2)
15. Cutting the aluminized Mylar (2,.5 )
16. Gluing the Mylar to the transfer ring (2,2 )
17. Tensioning/gluing (2, 2) <<<new procedure; cathode below transfer ring, tensioned and glued in one operation.
18. Trimming and forming ground connections (1,4 )
19. Rigid-flex testing per GLUEX DOC 1328-V1 (1,4) << 9 boards per cathode
20. Rigid-flex soldering/flux clean (1,10)
21. Test connections/repair (1,3)
22. Gas test for leaks (1,1)
23. **Wire frame production**
24. PCB ring assembly
25. Inspect and clean the PCBs (1, ) Who will do this? no cleaning procedure established
26. Solder components/re-clean boards? Final electrical Test? Are the boards already populated?
27. Dry fit the PCBS on gluing fixture(1,1 )
28. gluing the PCBs (2,4 )
29. inspecting and cleaning the PCB ring (2,2 )
30. g10/Rohacell lamination<<intermediate to machining process, prior to flycutting
31. Rohacell arc cutting (1,2 )
32. Gluing Rohacell arcs into a ring (1,2 ) <<new templates needed.
33. Lamination of the Rohacell ring on the g10 frame (2,2 )<<vacuum bag process. Laminate goes back to machine shop.
34. inspect the final machined thickness (1,1 )
35. Wire frame assembly
36. Gluing the PCB ring to the g10/Rohacell lamination (2,2 ) <<vacuum bag process.
37. clean the frame(epoxy drips) and store for wire stringing (1,2 )
38. **Wire stringing**
39. Attaching/aligning/cleaning wire frame to the table/strongback (1,1)
40. Stringing (2,12)
41. Raise/align strongback beneath wires (1,.5)
42. Position check/stick down with tape strip (1, 8) <<camera used to check, tape assures contact with solder pad. We need to test this.
43. Glue the wires (1,1)
44. Solder the wires (2, 2) <<solder a group of wires (20?), and then spot clean the flux. Repeat. Industry guidelines say flux should be cleaned within one hour of soldering!!!!
45. Cut wires, clean flux (1,4)<<<ultrasonic bath?
46. Tension measurements (1,8)<<spreadsheet used to calculate and record tension
47. Component soldering, spot flux cleaning (phase 2) <<<Who will do this?
48. Frame cleaning (1, 1) <<ultrasonic bath?
49. Electrical testing/repair (2,20) <<GLUEX DOC 1327-V1
50. **Stack assembly/ testing** (data for one stack- there are four)
51. O-ring preparation (1,8) <<<24 o-rings in a stack
52. Jig assembling (2,1)
53. End cup assembly
54. One layer assembly
55. Grounding (1,2)
56. One layer electrical test
57. One layer gas leakage tests (1,1)
58. One layer cosmic tests<<<can we do this and meet schedule? This takes a long time, and we have 24 layers total!