Layout / Design working group

Objectives

- Baseline definition
  - Global layout and interfaces
  - Quadruplet design
  - Materials
- Priorities and tasks sharing
- Work organization
  - Drawings, parameter book, …
  - Planning and milestones
  - Meetings schedule

Global layout

- Envelopes (nominal, tolerance, deformation)
- Focus on Z direction
- Location of electronics
- Services implementation
- Interfaces (common kinematic support, handling, …)
- In-plane alignment system

Module design

- Frames (width, thickness, glue gaps, …)
- Closing procedure (screwed/glued)
- Sealing, gas tightness (joint, glue, …)
- Interconnection (drift pillars, thermo-mechanical simulations, electric field simulations, …)
- Mesh:
  - Gluing
  - Deformation
  - Readout vs drift?
  - Grounding
  - Type of mesh

Panel design

- Materials (glue, HC, frames, …)
- PCB geometry (radial vs stereo, drift)
- Alignment devices (optical or mechanical)
- Impact on panel gluing procedure
- Tooling, stiff-back, …

Planning

- 1st meeting 5/6 dec (work definition and tasks sharing)
- Reporting in weekly meeting
- 2nd meeting mid-january (advancement)
- MMM february (finalisation of architecture)
- Then regular meetings (every 15 days) towards the module 0

Summary

- Layout baseline definition
- Priority for drawings and parameter book
- Detailed studies in a second step:
  - Impact on electronics implantation
  - Grounding and shielding
  - Services (gas, LV, HV, cooling, cables, connectors…)