



Progress status of EMR Assembly @ Geneva

MICE meeting July 7, 2010

EMR production status (including reminder in our organization)
EMR outer box (1^{rst} proto already in prod)
EMR @ RAL

University of Geneva: A.Blondel, J-S Graulich, V.Verguilov, Coralie Husi, F.Masciocchi, L.Nicola, R.Bloch, N.Geisig, P.Béné, F.Cadoux





Module/Plane assembly and Testing in the same room @ DPNC (2 planes with <u>double fiber</u> per bar, <u>former configuration</u>... **FINAL config to be tested soon**!).





New modules in production (6 planes ready)



After bar re machining (within 0.1mm precision) + drilling + white painting, everything moves to the gluing "facility" (downstairs...)

Guide for fiber insertion and gluing (20 bar in a row)

Everything foreseen for a safe handling

Coiling system to limit the fiber bending radius

Gluing Rack (20 bar each)



New modules in production



Fiber distribution: big wheels received from the company and hooked up to the wall... Makes the life easier (fiber insertion, cutting to length, pliers to hold fiber in position,...)





New modules in production (organization)



The 7 gluing stands awaiting in their rack



20 bar gluing per day Max! (due to preparation & manpower)

3 stands ready for plane assembly (fiber bundle coiled around the jig, each fiber in a protective sleeve (black))

4 stands already used for plane assembly (ready for fiber gluing)

Organized in a way to damp the production flow (different job stands)





Example of a module mounting (aluminum profile connected with corner blocks)





New modules in production (Module assembly)



Module being assembled (awaiting the PMT connector gluing and electronic integration). The first 2 modules with fibers of 1mm in diameter...to be tested soon in cosmic!





New modules in production (Module assembly)



Current development @UNIGE (on the first 2-3 modules): <u>A stand</u> to Assemble, Glue and Polish the fiber connectors after insertion... in order to save time and provide a sort of "Quality Assurance" (repeatability) over the whole prod.

⇒ The production of modules will keep going during summer (some other activities will be then finished!). After validation with cosmics!













"64 pixels Phototube" (all assembled)



Flex connection being tested @UNIGE...mechanical proto for tuning





"64 pixels Phototube" (all exploded...)



NOT shown here: the base plate for FEB support



Fiber connector and electronics assembly



"Mono pixel Phototube" (all assembled...)



"Mono pixel Phototube" (all exploded...)





Module assembly in the Outer Box







Module assembly in the Outer Box







Module assembly in the Outer Box









CAD assembly model under construction to:

- -Check interference between EMR & others...
- -Estimate cable lengths from EMR to Control room (thru Racks)
- -Fix the issues related to the big shielding plate in front of EMR...

