

MICE CM27

Engineering Summary

- Electrical engineering – DL
- EMR – UNIGE
- Diffuser – Oxford
- Integration – STFC
- Discussion - All

Andy Nichols, STFC 10th July, 2010

Electrical Engineering – Chris White

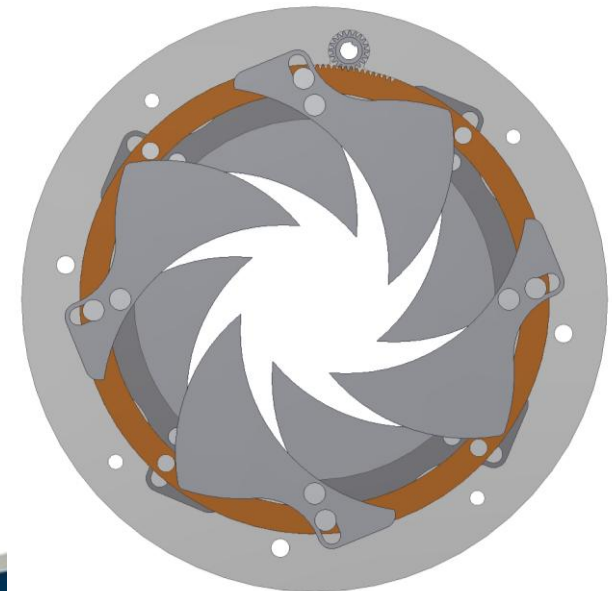
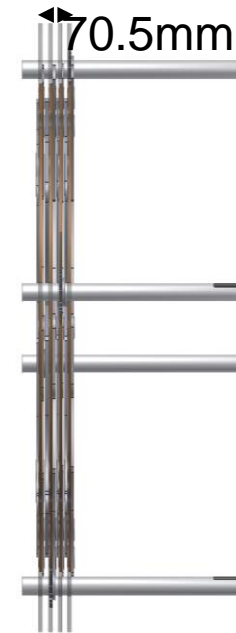
- *Power distribution in R5.2 complete, ie compressor wiring, etc*
- *PPS hardware complete – rack rewiring 80% complete, finish August*
- *TOF II relocation & recabling complete*
- *Followed up visit to LBNL/Wang by starting solenoid controls project:*
- *Hardware for above being specified/purchased*
- *Rack congestion in R5.2 solved by double-deck arrangement – now in quotation*
- *Luminosity monitor and target cabling complete*
- *Liquid hydrogen controls making good progress with AS*
- *Plan for FY10/11 80% complete after understanding priorities*

EMR – Jean-Sebastien

- *Module assembly and testing production line in Geneva looks well organised and efficient*
- *Assembly, gluing of active layers and fitting of fibres*
- *Appears to be working well*
- *Local electronics also making good progress*
- *Need for electronics cooling is being addressed, 2 watt per board*
- *This needs to go in R5.2 cooling/thermal plan*
- *Design of EMR outer box is evolving – big and heavy, but that's OK!*
- *Need to watch the interface with mezzanine, KL trolley, floor and cabling, etc*

Diffuser – John Cobb

- *Baseline design has been assembled and tested*
- *But suffered problem when running*
- *Radical re-design, use four IRISes instead of fixed discs*
- *Great idea, much less complication*
- *In early stages of design*
- *Beautiful prototype made in three days!*
- *Have to watch tolerances, friction, catch-ups, etc*
- *But it's a good way to go*
- *Presentation to TB on the way*



Integration - Andy

- *Jason Tarrant will start as integration engineer full time in mid-late July*
- *Build on work started by Wing & Stephanie, but boundary is four walls of R5.2*
- *Concentrate on interfaces, envelopes, change control, stay clear zones, services, drawing standards and storage*
- *Will have regular slot in the Technical Board*
- *A difficult job, but will have to be done if we need things to fit together.*

Discussion - All

- *Diffuser – does the physics of the new configuration work?*
- *Not sure about how to actuate the four control rods, must be non-magnetic*
- *Try to eliminate the close limit fits where possible and metal-metal sliding joints*
- *Neutral format for drawing depository – what do we need, PDF, HPGL.....Andy hasn't a clue, Jason will look, CDD would be an example – read-only of course*
- *EMR is bigger than we thought! – obvious interference with surroundings – important Tim/Jason continue discussions with Franck.*