

Oxford SoLid update

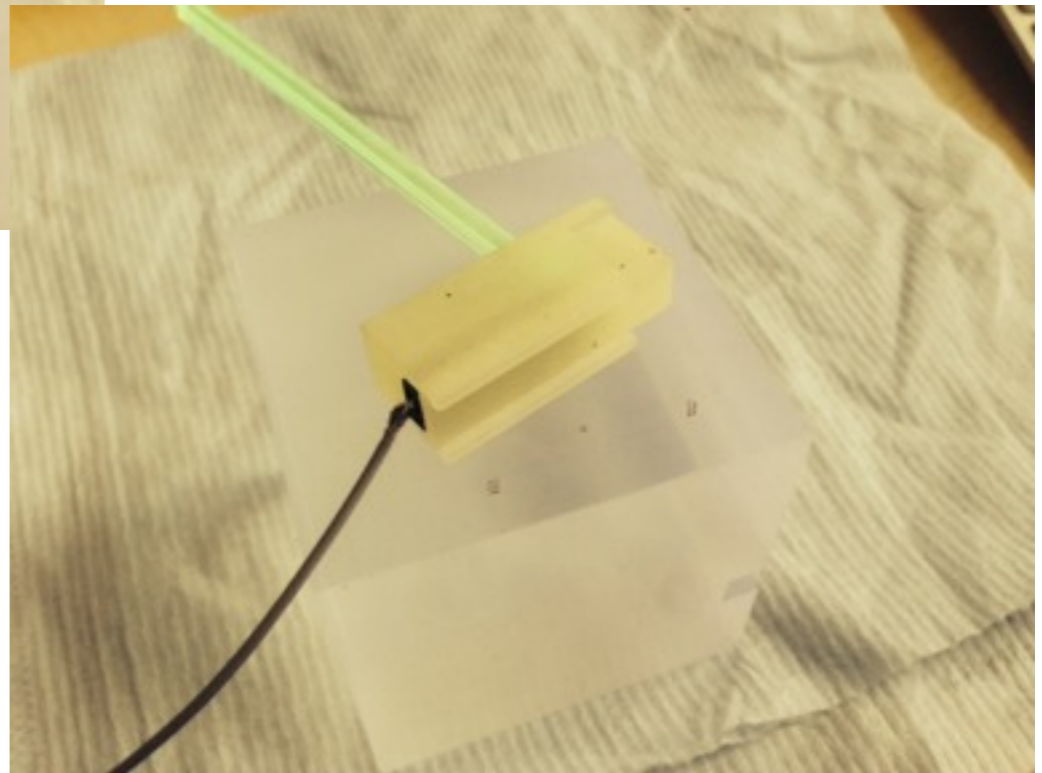
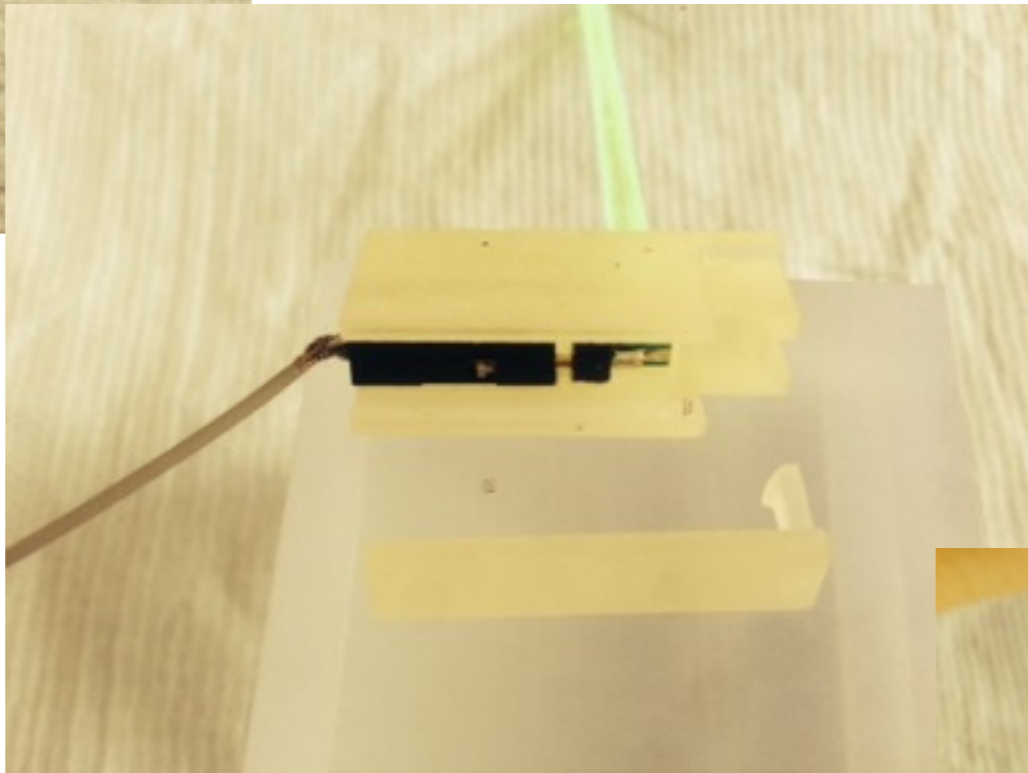
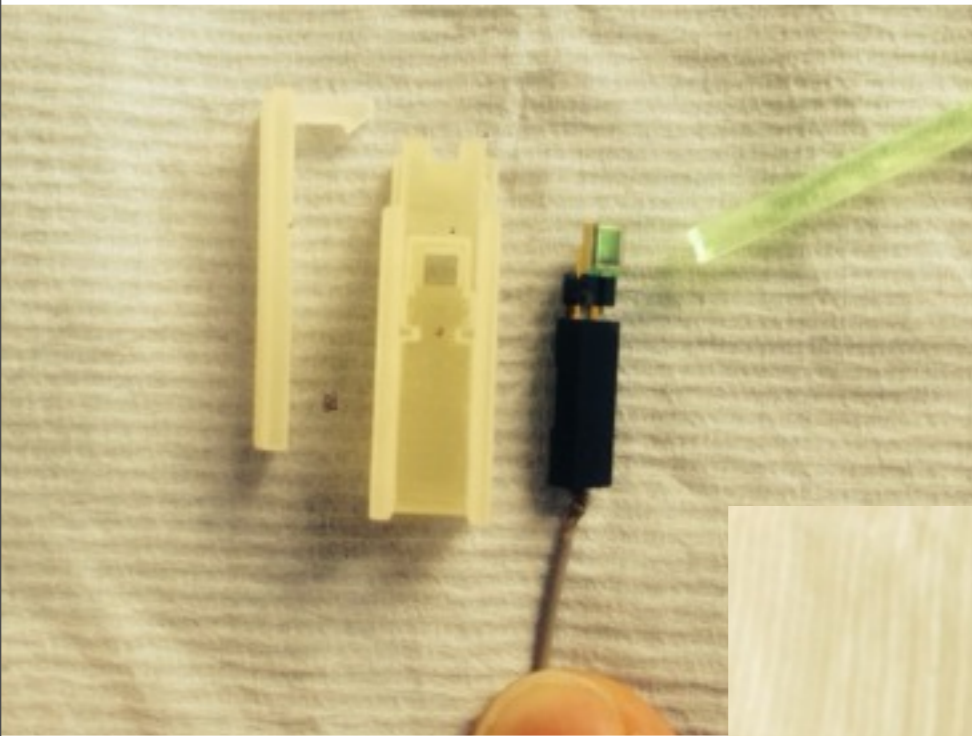
A. Vacheret

Oxford tasks

- MPPC-fibre Connector and MPPC electronic cables
- External neutron shielding (target installation Aug/Sept 2014)
- Electronic boards

SoLid connector status

- design finalised last week
 - 3D printed sample has no issue.
 - Tolerances OK and fit well with MPPC/pins and cable connection
 - completed !
- will print ~ 40 pieces to try with Mock up
- drawing to be released by end of week
- will get quote for injection moulding (intern/extern job)
- talk to workshop to prepare ~ 300 cables and connector for MPPCs
 - define timescale for MPPC+connector readiness

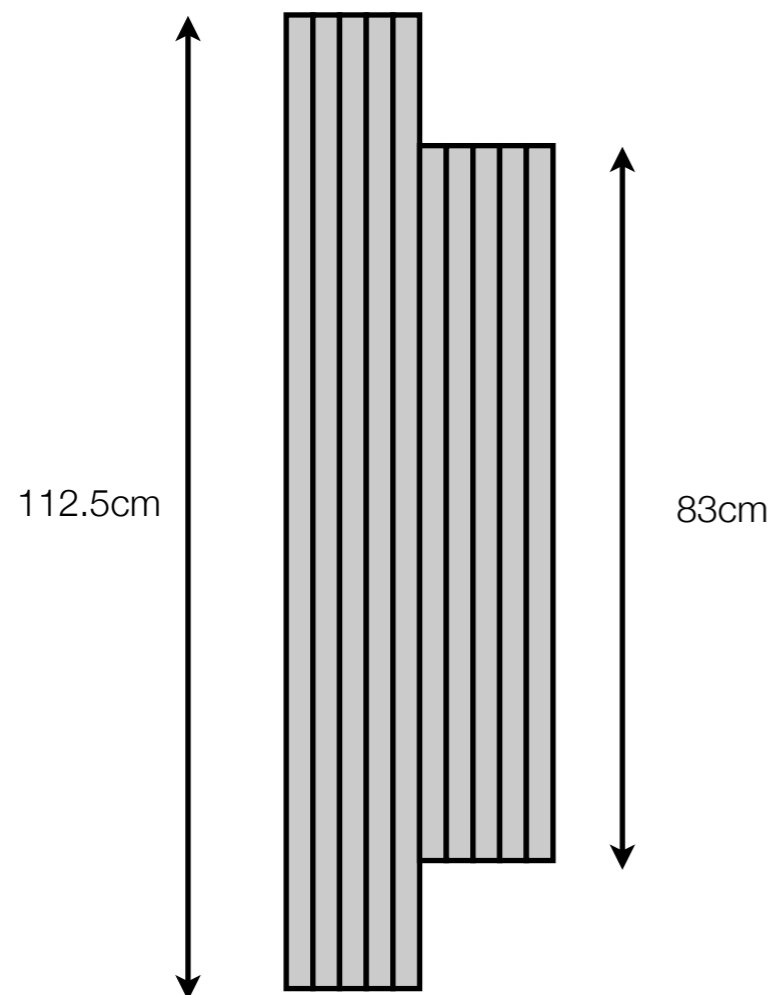


External neutron shielding

- Plan to re-use PolyPropylene blocks from Boulby
- Paul will be going there in two weeks for Dark Matter work and will find out total amount available and in what state
 - quantity enough for this year ?
 - understand what level of re-machining is involved
 - practicality of transportation/storage in Oxford and then to Mol/elsewhere in Belgium.
- Should investigate if we could run without extra shielding.
 - July cycle with NEMENIX outside HDPE box ?

Preliminary sizes

- 3cm thick planes (some with a hole in it (15cm diam))
- 4/5x 5+5 planes available
- should be enough for SM1



Electronics update

- Work on the new DPC layout is making good progress
 - 64 channels on same level with adaptor card for another x64chan
 - reviewed connectors and ADC routing. HV delivery to front-end boards and DAC for HV trims and charge injection
 - Neutron project will use another board (smaller better suited for portable a and low number of channels)
 - design fully aimed at SoLid large number of channel high sampling rate board.
- review work tomorrow with engineer
 - **Full update next week**