

# DP update

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# Hardware

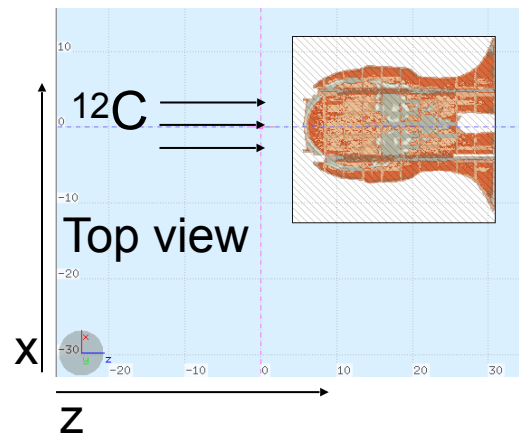
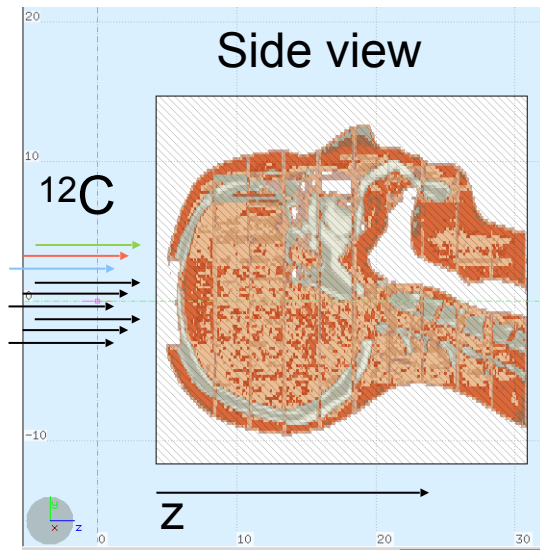
- The DP has undergone several HW modifications, tested in the last TB @ CNAO [25-26 May]
  - The new cooling has been installed and tested. It is leak-proof far beyond what is needed for standard operation. We are waiting for the final pieces to implement and test also the connectors (beside the cooling aluminum plate and the pipes)
  - The ‘long’ powering cables are being ordered: we are struggling to find out the best solution to have cables that are compliant with the requirements of low smoke, etc etc... and that are big enough to avoid a significant voltage drop
  - The last 2 planes of scintillator have been replaced with 2 new planes of fibres.
- In the last DP opening we will recheck the electrical connections of several SiPMs, finalise the cooling connections and close the box.. Expected to be done before the end of june.

# Data transfer

- The DP has undergone several HW modifications, tested in the last TB @ CNAO [25-26 May]
  - The DDS driven data transfer has been tested and worked exceptionally well: transfer rate matches now the expected limit for eth. transfer, data corruption (in 0.1% of cases) was cured and we expect to cope with max rate from lowest possible distance (30 cm) run without ANY data loss.
  - New DT: 5  $\mu$ s, max rate: larger than 100 kHz. [congrats to Giacomo for this tremendous achievement!!!]

# Software

- Current work is focused to finalise the 0-level exercise: starting from the data collected @ CNAO, unfold the production distribution and compare with the predicted shape.
- Work to be done:
  - Finalise the MLEM machinery using the FRED tool
  - Validate the 2D weights on real data



**We aim for completion of the tools before summer**

