

Forward Calorimetry

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Physics Goal:

- Excellent EM shower position reconstruction for the Luminosity measurement
- Highly efficient electron tagging with rad. hard sensors

Technology:

Finely segmented and extremely compact calorimeters

Infrastructure to verify performance simulations:

Tracker in front of a calorimeter prototype

A flexible tungsten absorber structure, depth $10 X_0$, precise mechanics

FE and ADC ASICS to instrument 10 consecutive sensor layers, 30°

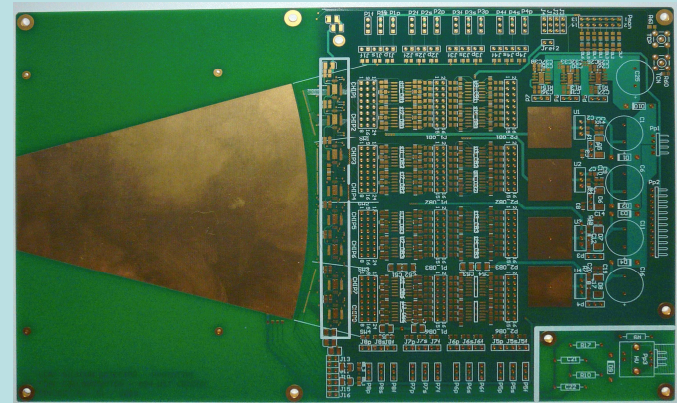
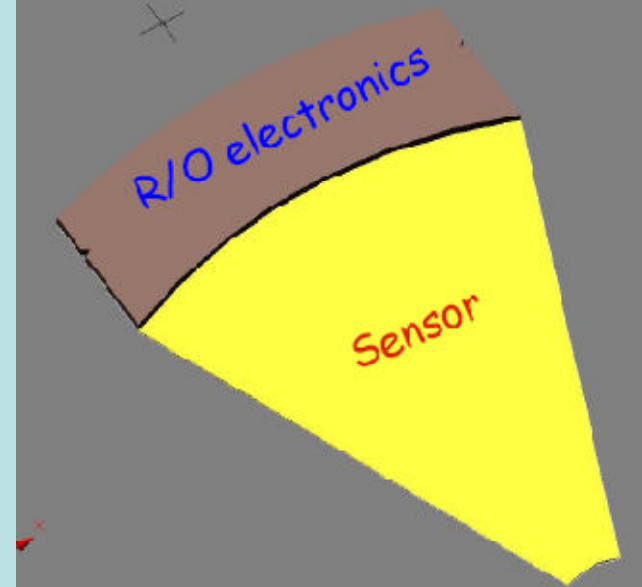
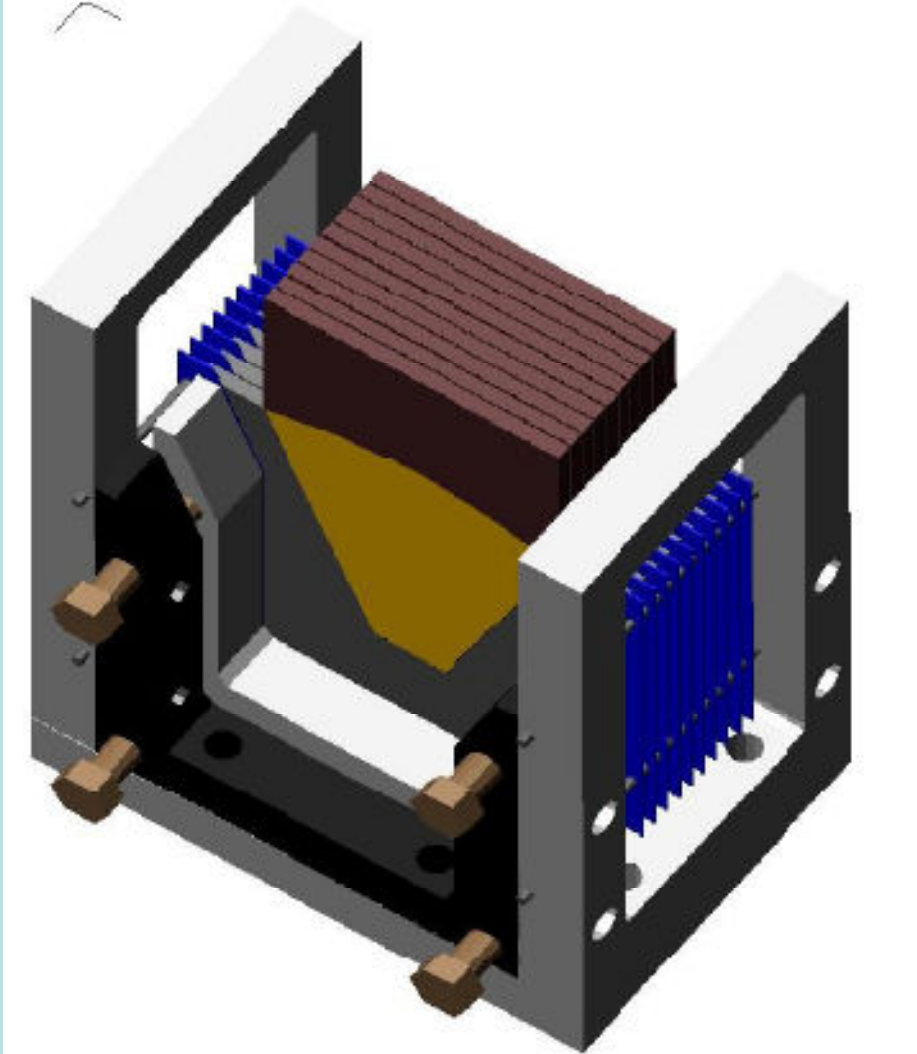
Tools to assembly sensor sectors

Optical position monitoring of the sensor sectors wr.to the tungsten frame

DAQ (common with other components)

Power pulsing (common development)

Example Ideas



Where we are

Prototypes of FE ASICs are available (8 channels per chip)
System test needed

ADC ASICs are available as one-channel version,
Development needs to be completed

Si Sensors (LumiCal) are produced, just tested

GaAs Sensor prototypes are available for BeamCal
Not yet tested.

No assembly done so far.