

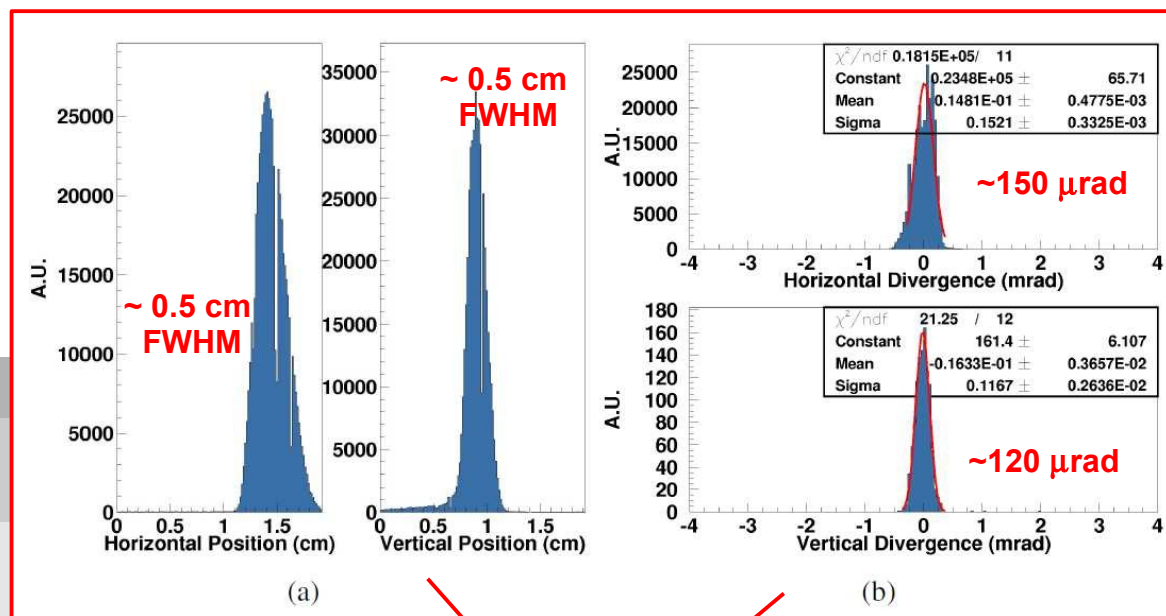
# PHOTAG H4

(2<sup>nd</sup> → 9<sup>th</sup> of September 2015)

- **goal/physics** → commissioning + characterization of **2 calorimeters** (1 shashlik + 1 PbWO<sub>4</sub> crystals): calibration and energy resolution measurements  
→ these two calorimeters will be used the following week by the CHANNEL experiment (see CHANNEL slides)

- **supports/supplies** → we use the **whole** area (upstream + downstream the Goliath magnet)  
→ detectors mounted directly in the final positions for CHANNEL  
→ mounting/dismounting 1 day  
→ standard internal CERN transports (via EDH)  
→ pag. 4 details on the requested mechanics

Particle type	electron/positron
Momentum	30 – 180 GeV/c (ten by ten)
Intensity/spill	- up to 10 <sup>4</sup> /10 <sup>5</sup> particles/spill - at least 2 spills per cycle
Purity	As high as possible (85% ?)
Spot dimension	0.5 – 1 mm in both directions
Spot divergence	no particular constraints (if possible) ~100 μrad in both directions @ 120 GeV/c foreseen for CHANNEL data taking



**MEASURED IN 2012 WITH  
150 GeV e-  
(2 modules placed at ~60cm)**

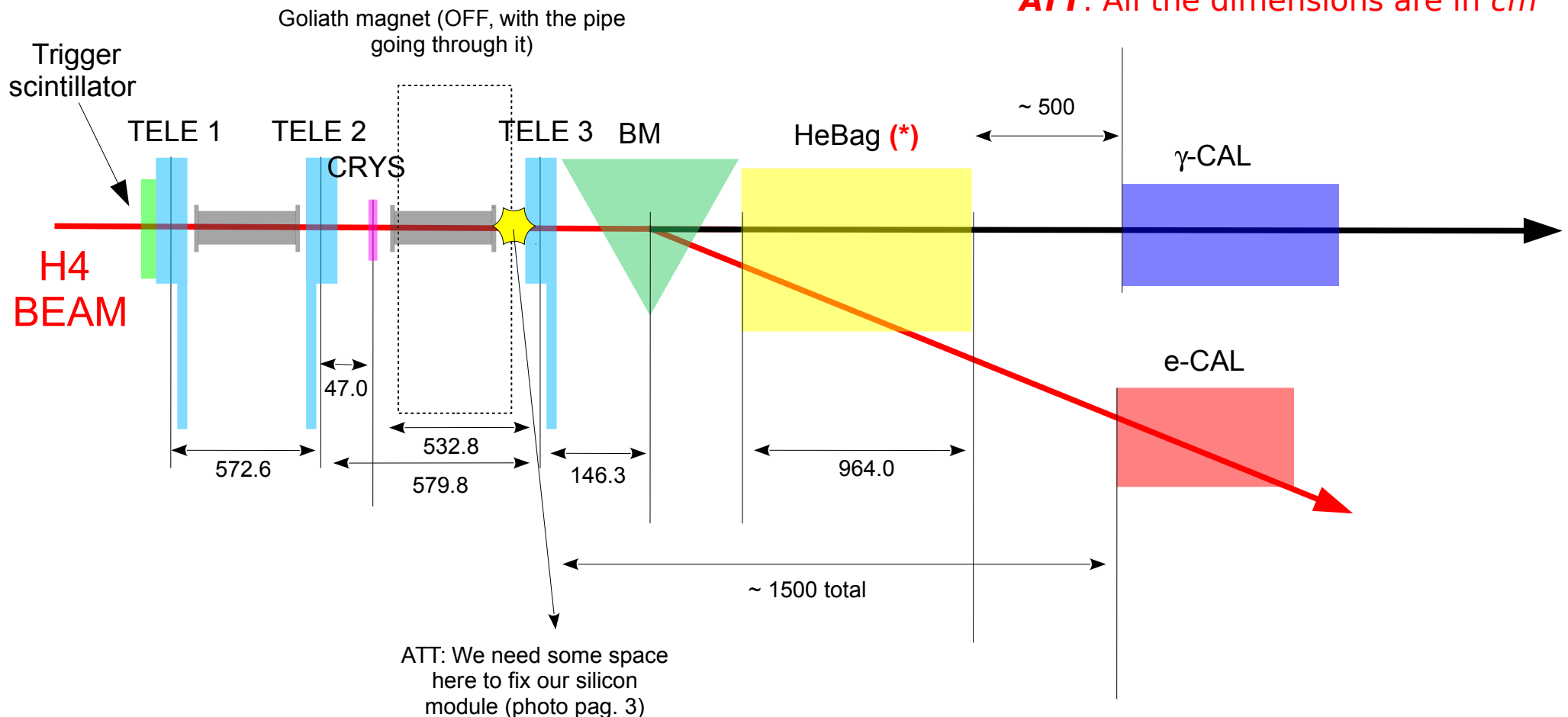
**We can allocate some time during our period for the beam tuning for the following week (see the CHANNEL beam requests)**

# PHOTAG H4

(2<sup>nd</sup> → 9<sup>th</sup> of September 2015)

SCINTI → plastic scintillator  
TELE 1-3 → silicon detectors (for single particle reconstruction)  
CRYS → silicon crystal installed on a goniometer  
BM → bending magnet  
HeBag → Helium Bag  
e-CAL → calorimeter for electron tagging (shashlik)  
 $\gamma$ -CAL → calorimeter for radiation measurement (PbWO<sub>4</sub> crystal)

**ATT:** All the dimensions are in *cm*

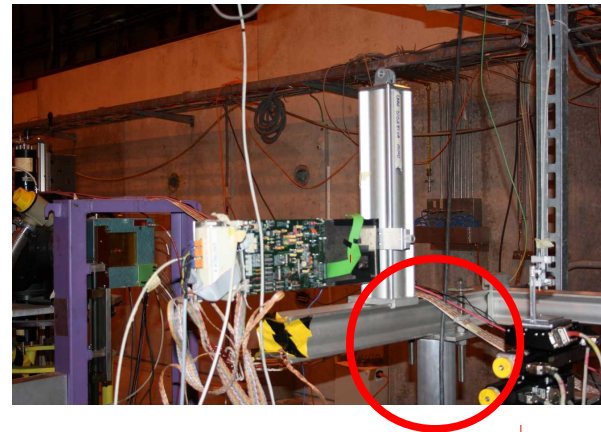


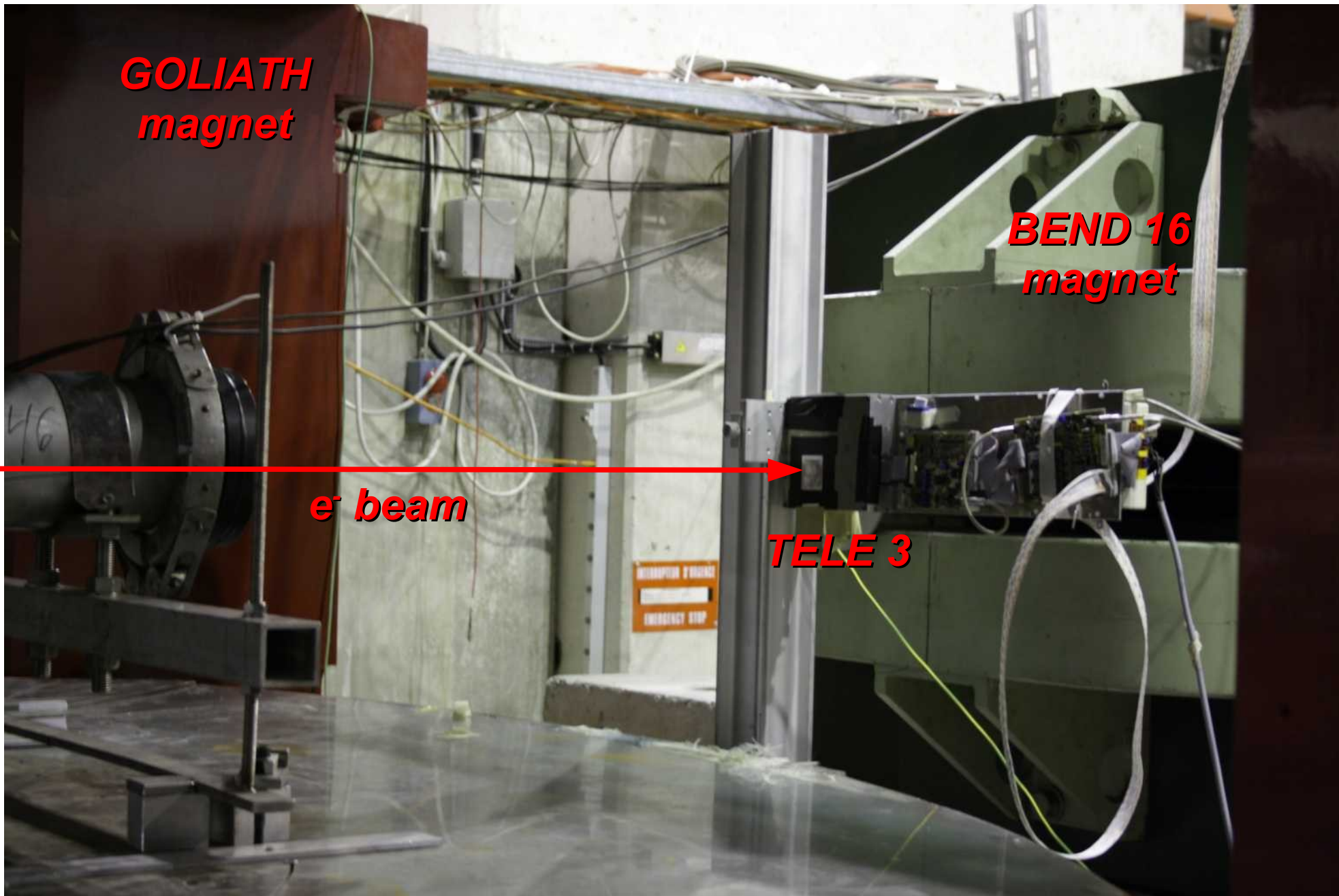
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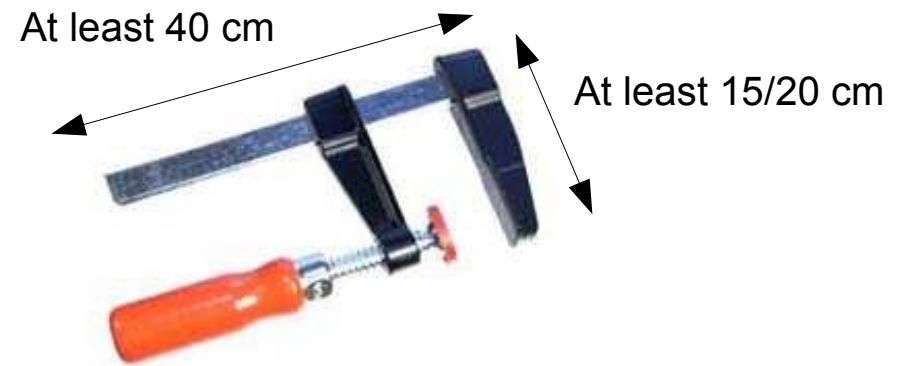
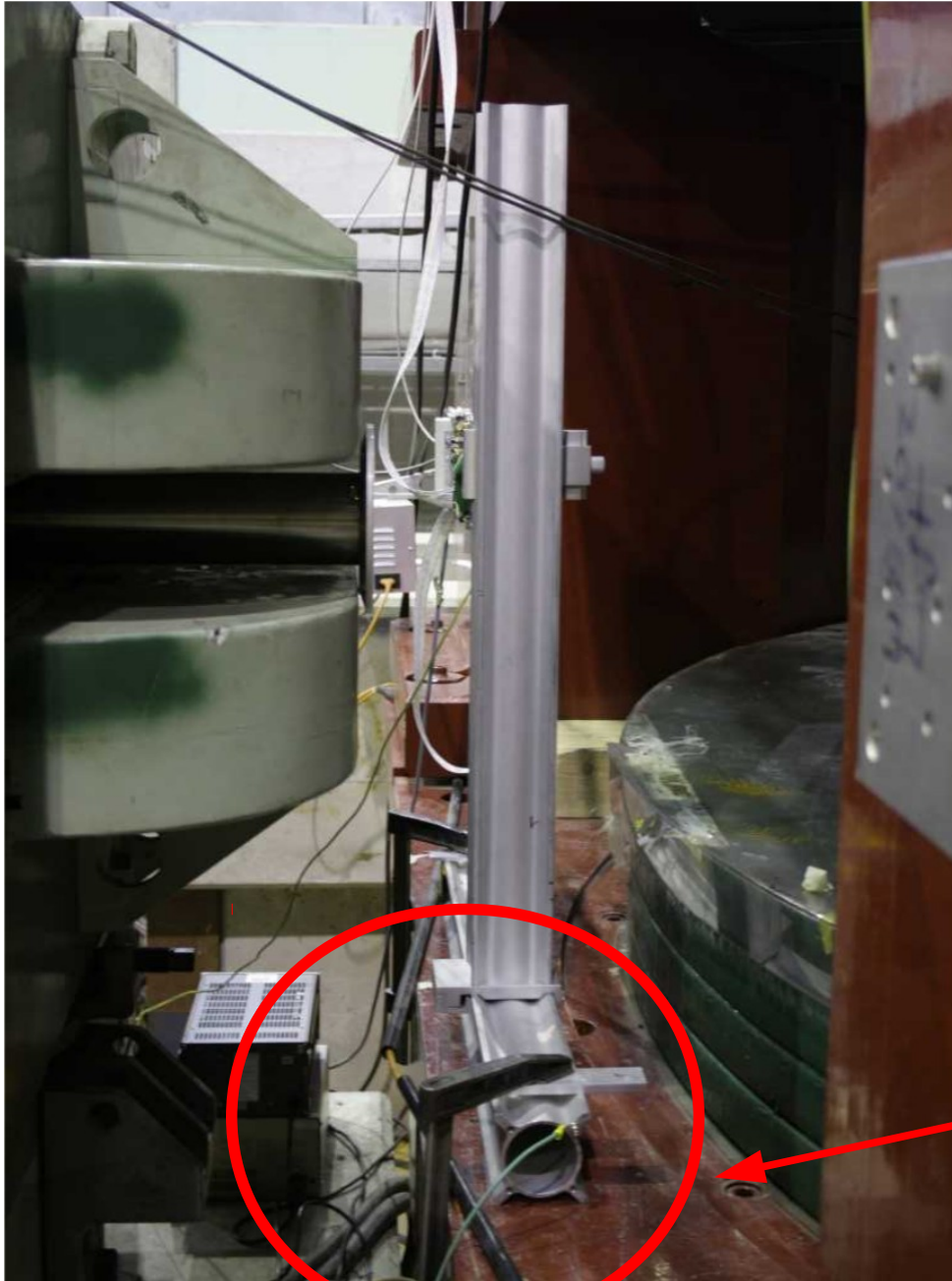
## MECHANICS

- 2 **C-clamps** to fix the rails
- 2 **supports** for the rails
- 2 movable tables (...if possible...) for the e-CAL and the goniometer (**XSCA** would be perfect)
- 1 movable platform (remotely controlled) for the  $\gamma$ -CAL (usually we use a **DESY table**)
- **beam pipes** (see previous layout scheme)
- the 3.6 Tm **dipole magnet** (BEND16, see previous layout scheme)
- **HeBag** → if it is already present it can remain installed (see previous layout scheme)

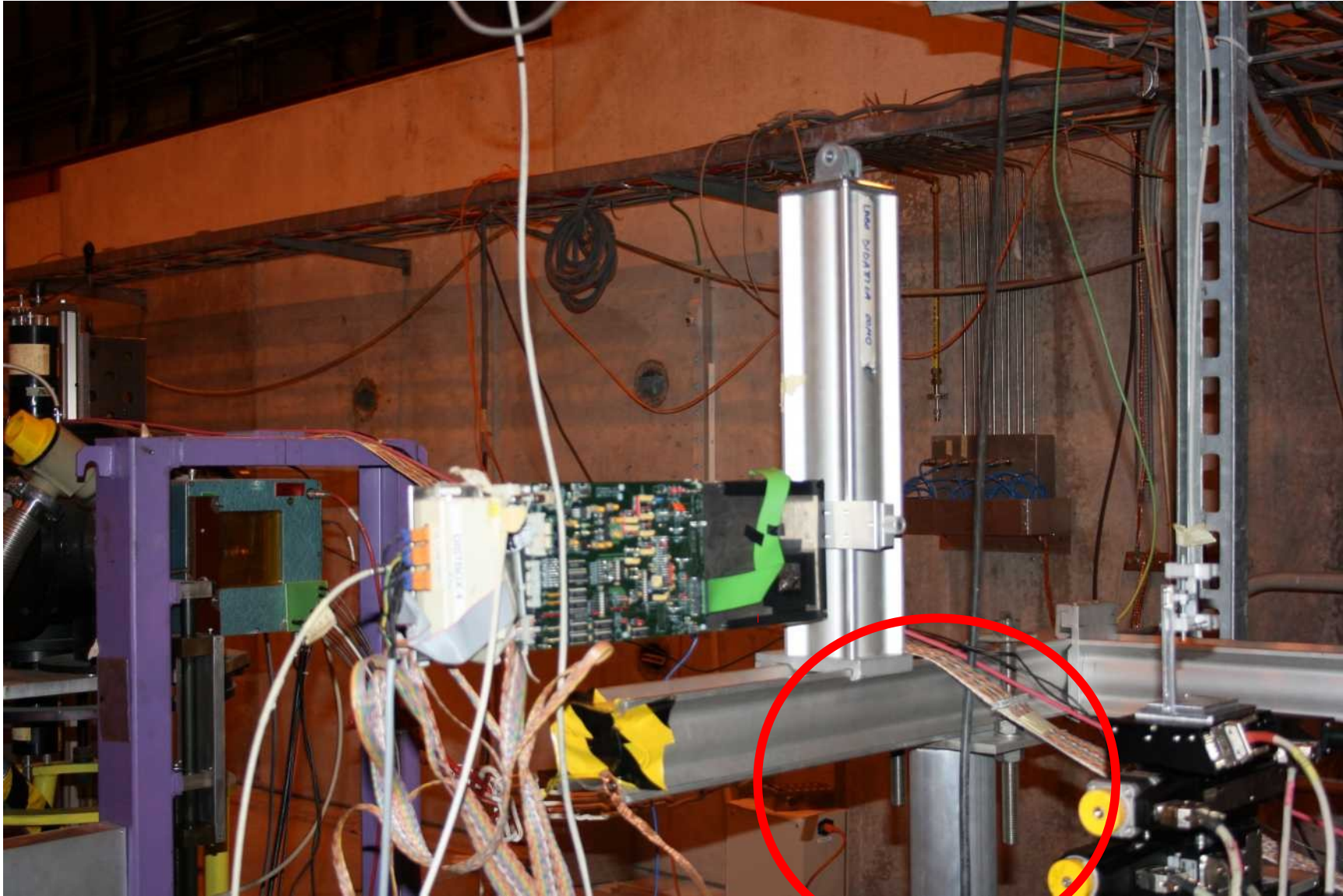




# C-clamps



# ***Rails supports***



# Tables for goniometer and e-CAL

