GRAN SASSO SCIENCE INSTITUTE
SCHOOL OF ADVANCED STUDIES
Scuola Universitaria Superiore

UNIVERSITÀ DEGLI STUDI DI NAPOLI FEDERICO II

INFN
Istituto Nazionale di Fisica Nucleare

Status of the PSD mechanics for test beam

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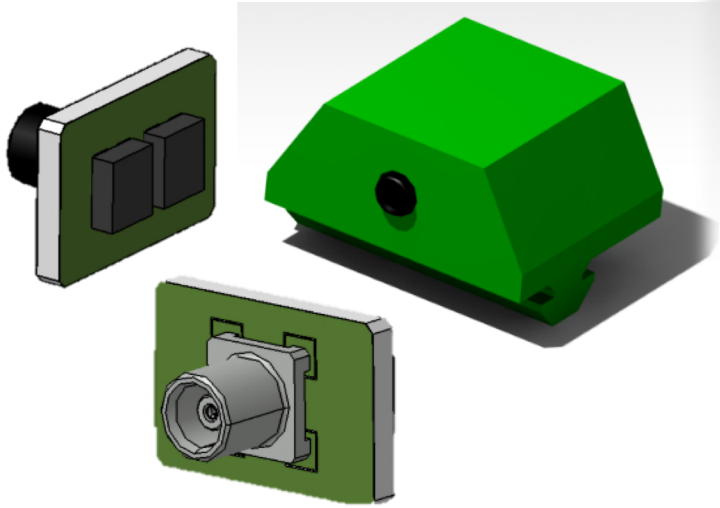
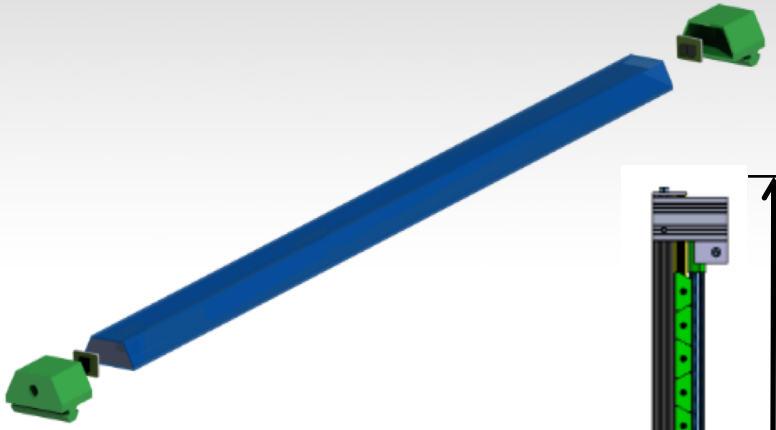
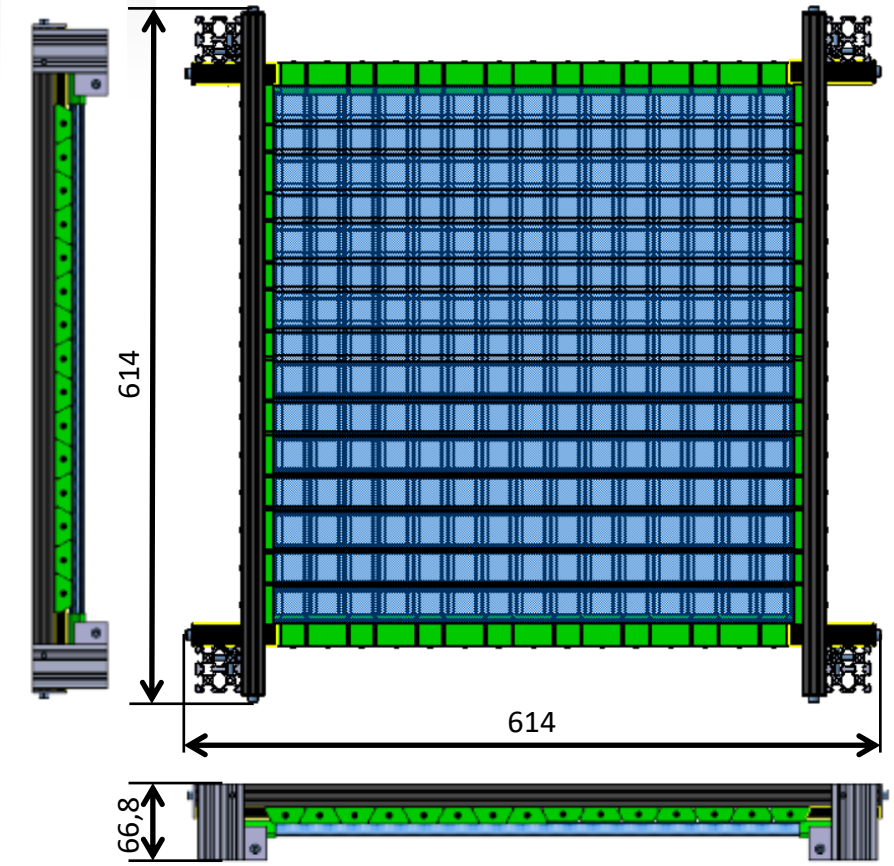
Test beam design - Bars



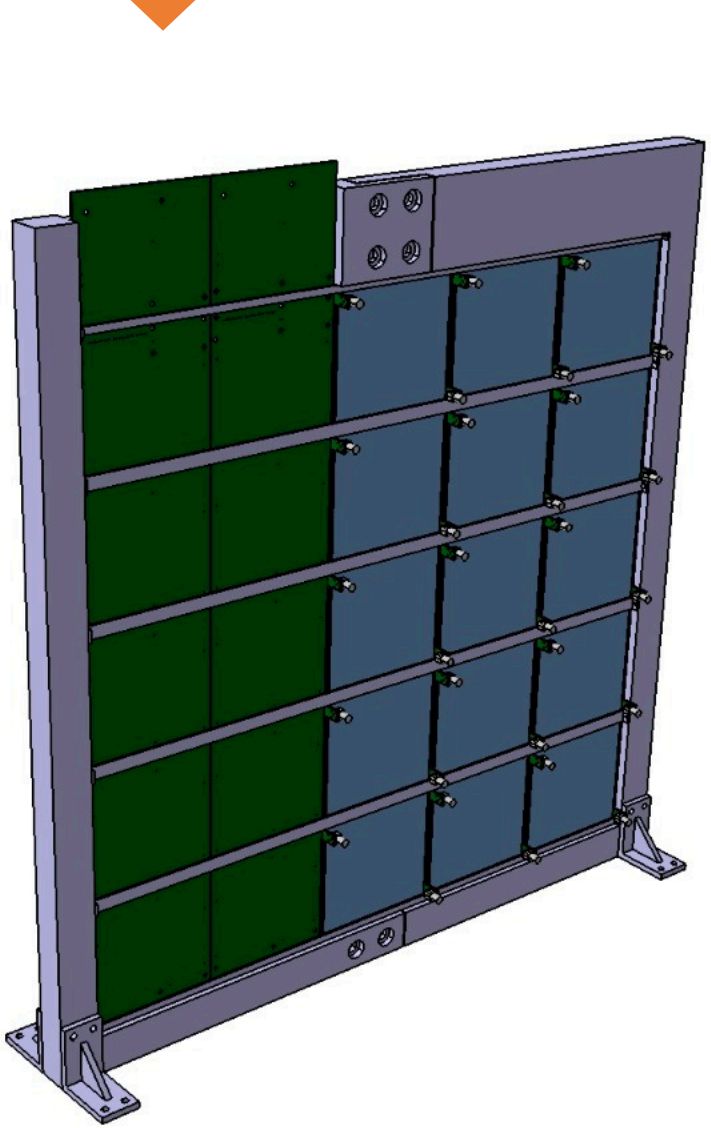


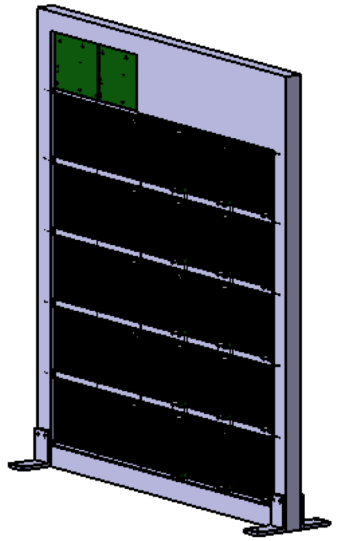


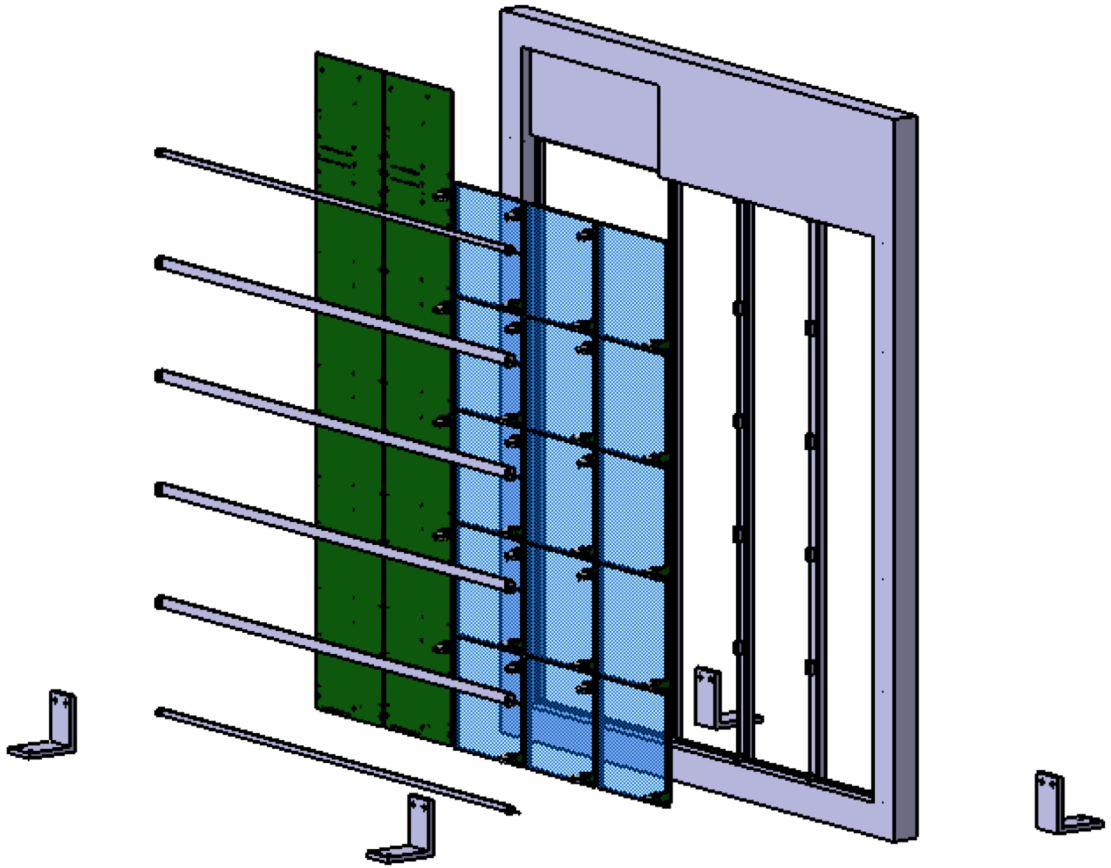
Dimension: 614x614x66,8 mm^3
Common Detect Area: 0,250 m^2
Distance between the two Bar Layers: 0 mm
except for the 5 mm bars (about 3 mm)
Bars in a layer: 15
Total Mass: 8 kg

Middle Section

Test beam design - Tiles

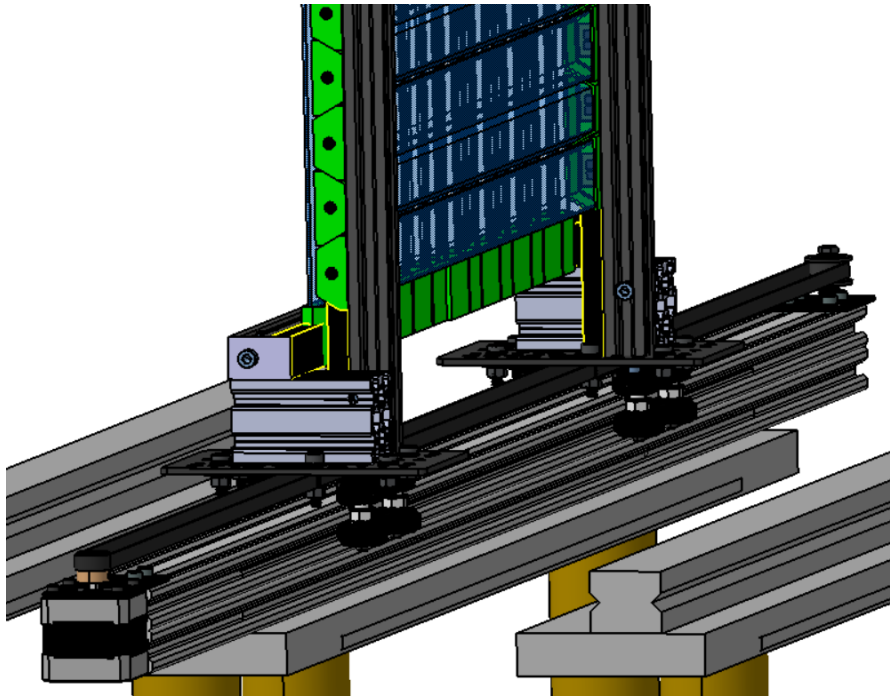


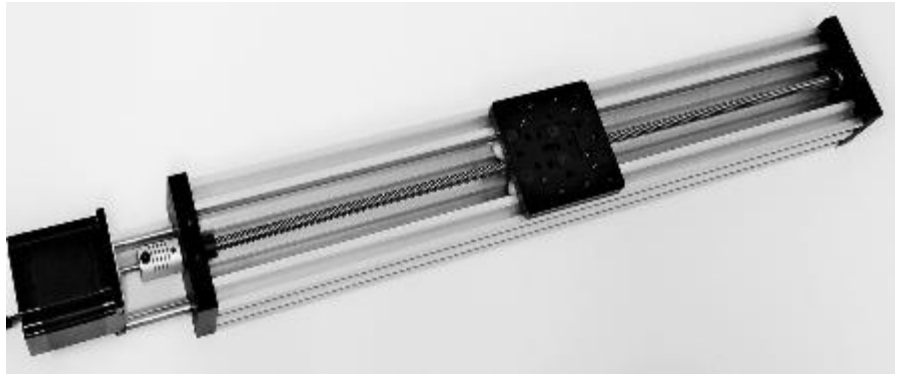




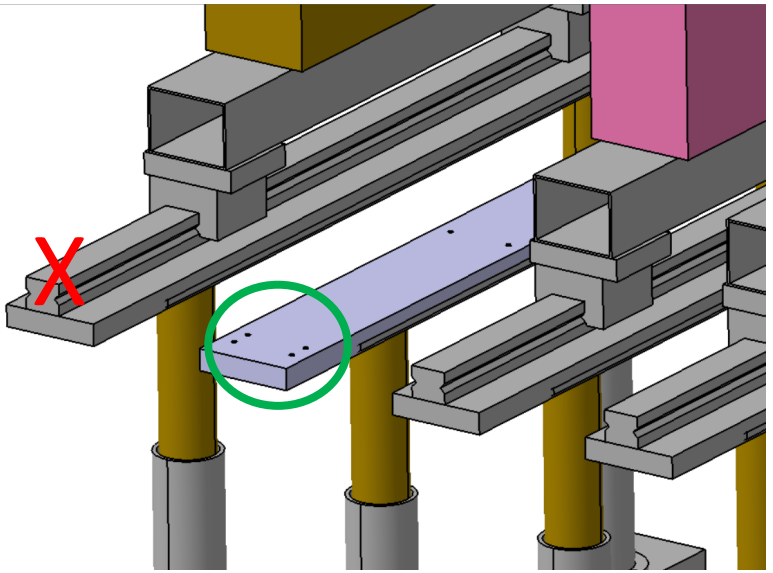
Dimension: 578x645x25 mm^3
Common Detect Area: 0,25 m^2
Tiles in a layer: 25

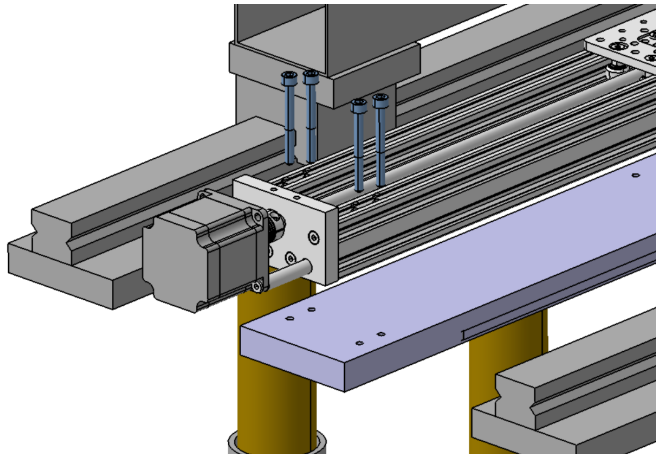
Common Platform

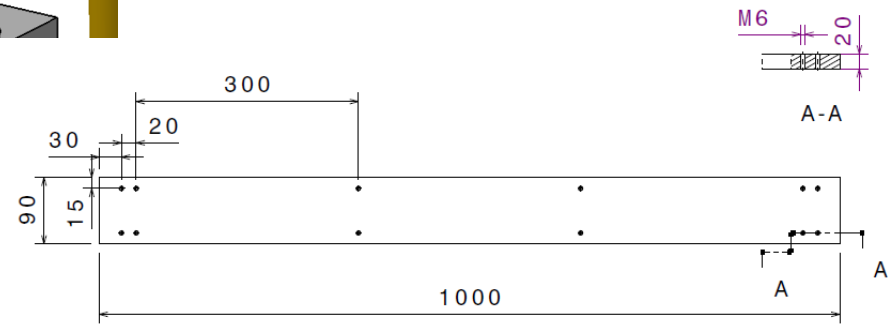




- 2 PSD Pillars required (one for bars, one for tiles)
- Bars and tiles will use the same horizontal movement
- Bars and tiles will link at the same way on the platform
- Vertical movement required (-25cm, +25cm from the centre step = 1cm, accuracy =1mm, remote control)







Status

- ✓ Bar frame and horizontal movement (delivered)
- ✓ Realization of trapezoidal bars and endcaps (to be realized by LNGS mechanical workshop by July 30th)
- ✓ Automatization of the horizontal movement (in development at LNGS electronics lab)
- ✓ Bar PCBs and cables (order under elaboration)

- ✓ Tile frame and horizontal movement (order under elaboration at LNGS)
- ✓ Tile frame (to be realized at LNGS mechanical workshop by September 30th)