Ciemat
Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas

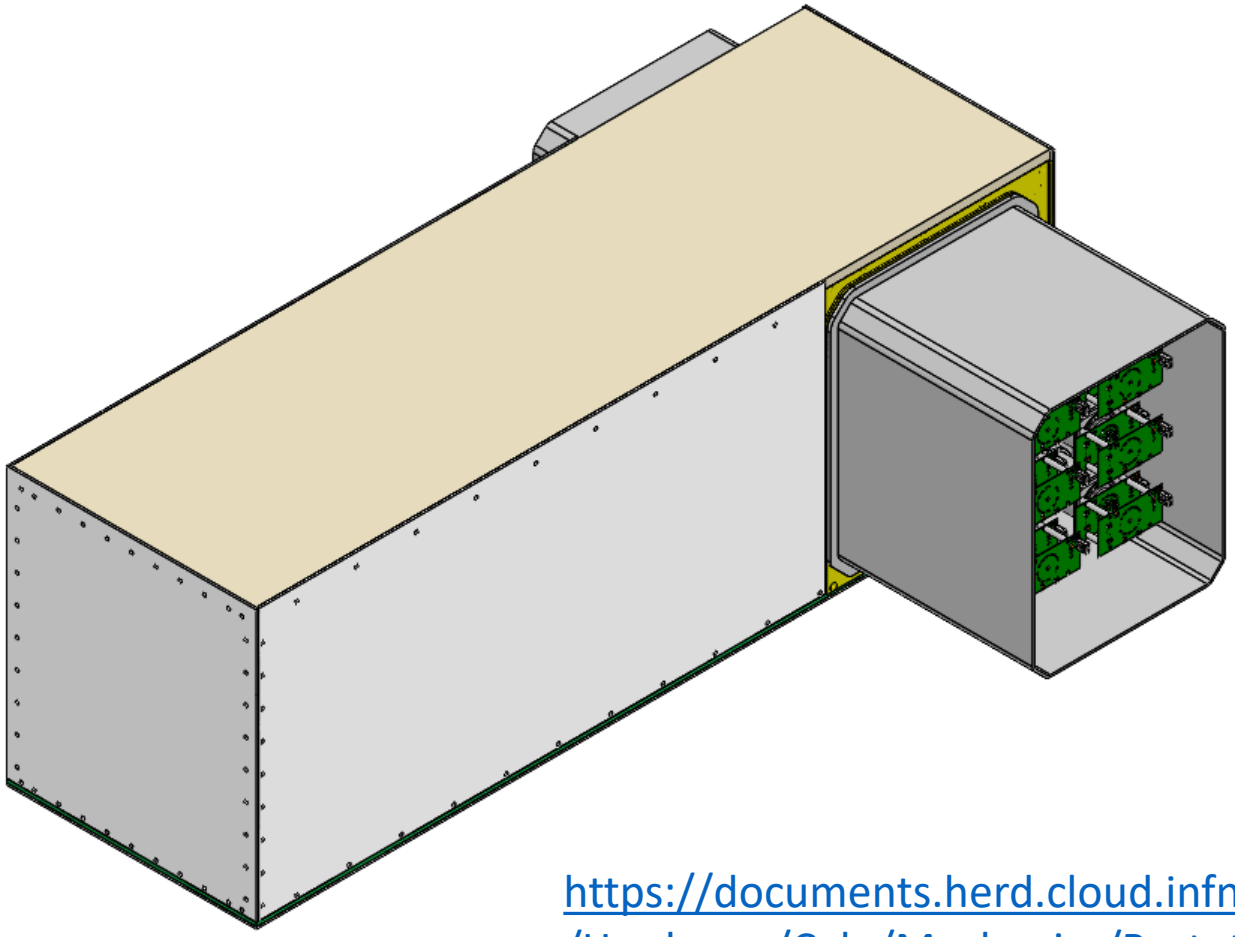
HERD
Test Beam 3D Model Review

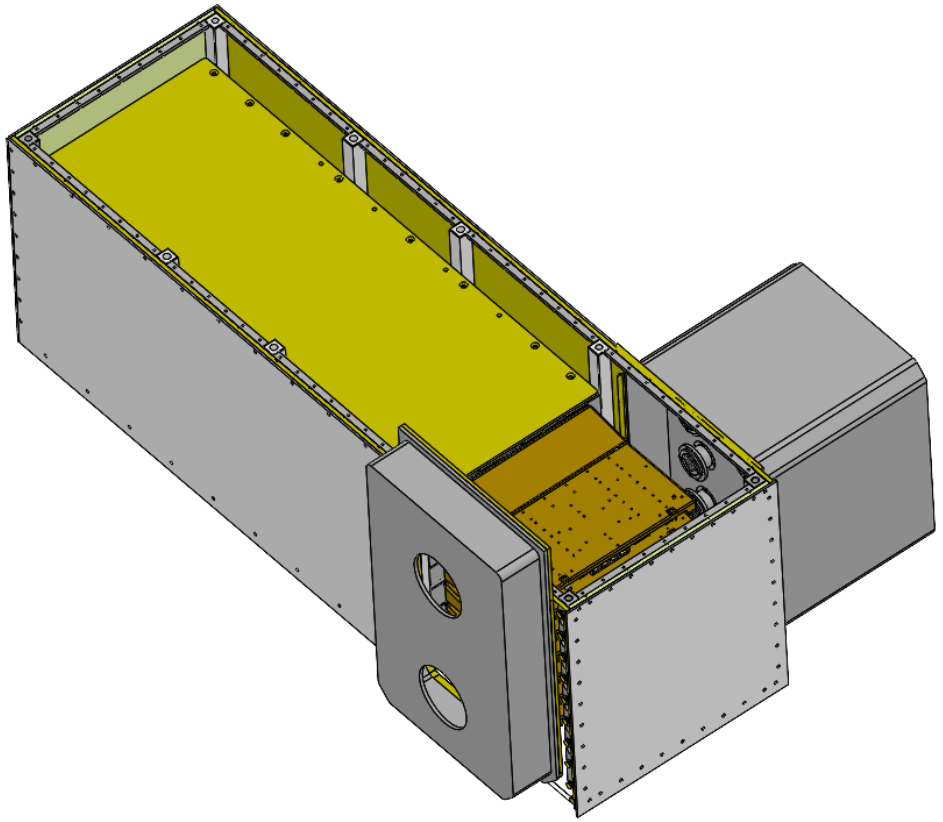
14/04/2023

Carlos Díaz, Miguel Polo,

Jorge Casaus, Jesús Marín, Gustavo Martinez

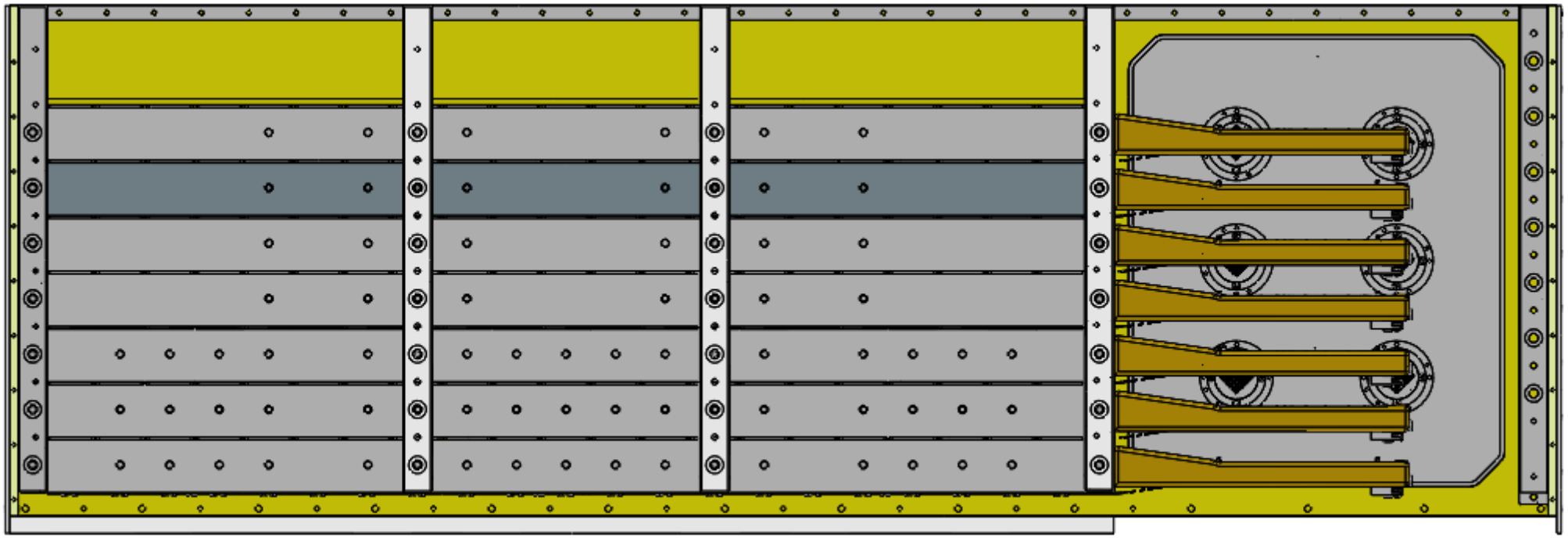
- Overview





https://documents.herd.cloud.infn.it/index.php/apps/files?dir=/Hardware/Calo/Mechanics/Prototype/20230309

- Overview

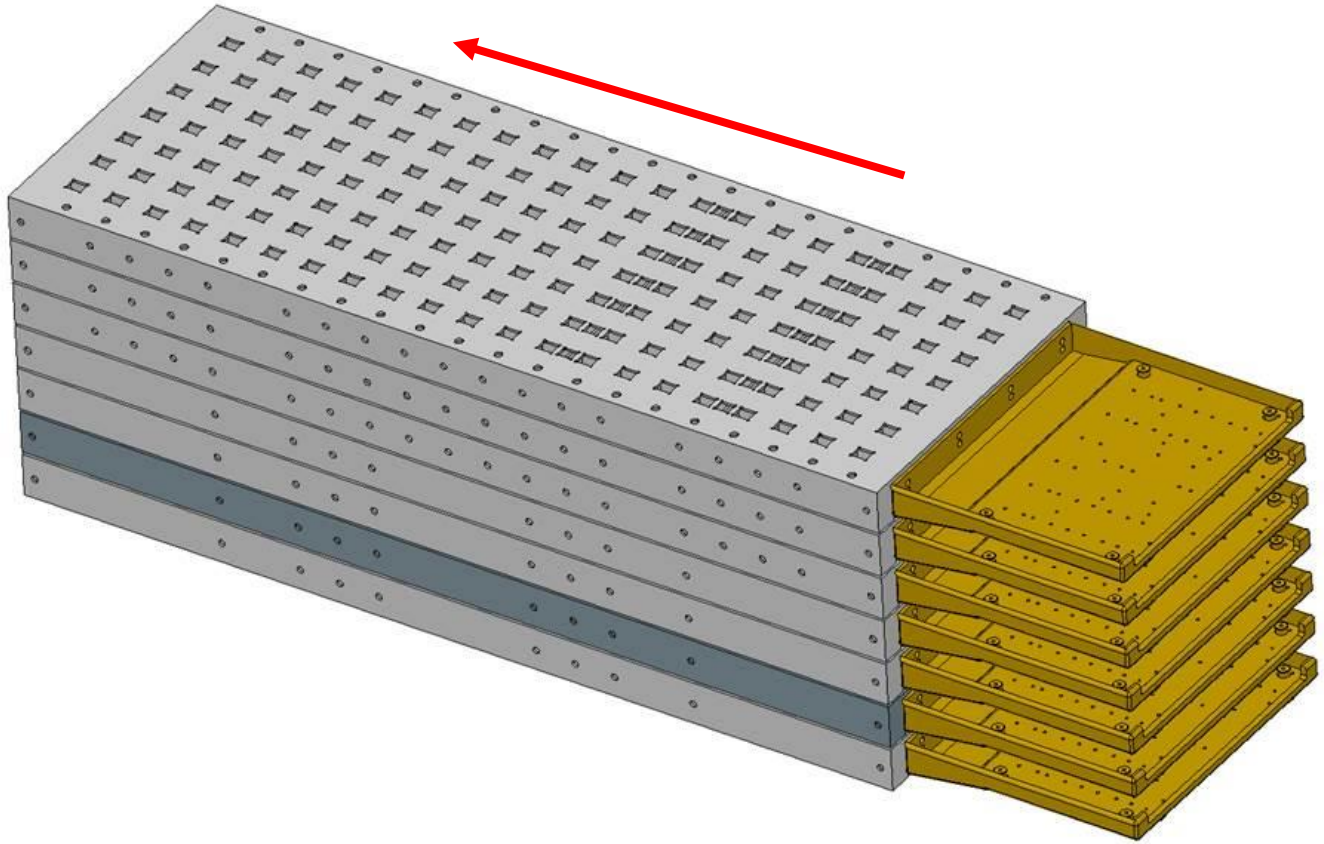


• Review

1. Location of the FRAME – TROC2 interface holes are **OK**.
2. TROC2 is not centered with respect the FRAME, **OK**.
3. In the new box design the distance for cables and connectors between the TROC2 connector panel and the box wall has been increased, **OK**.
4. The new FRAME opening for connectors at TROC2, **OK**.

• Issue #01

The blind diodes are in the nearest part of the TROC2 board.

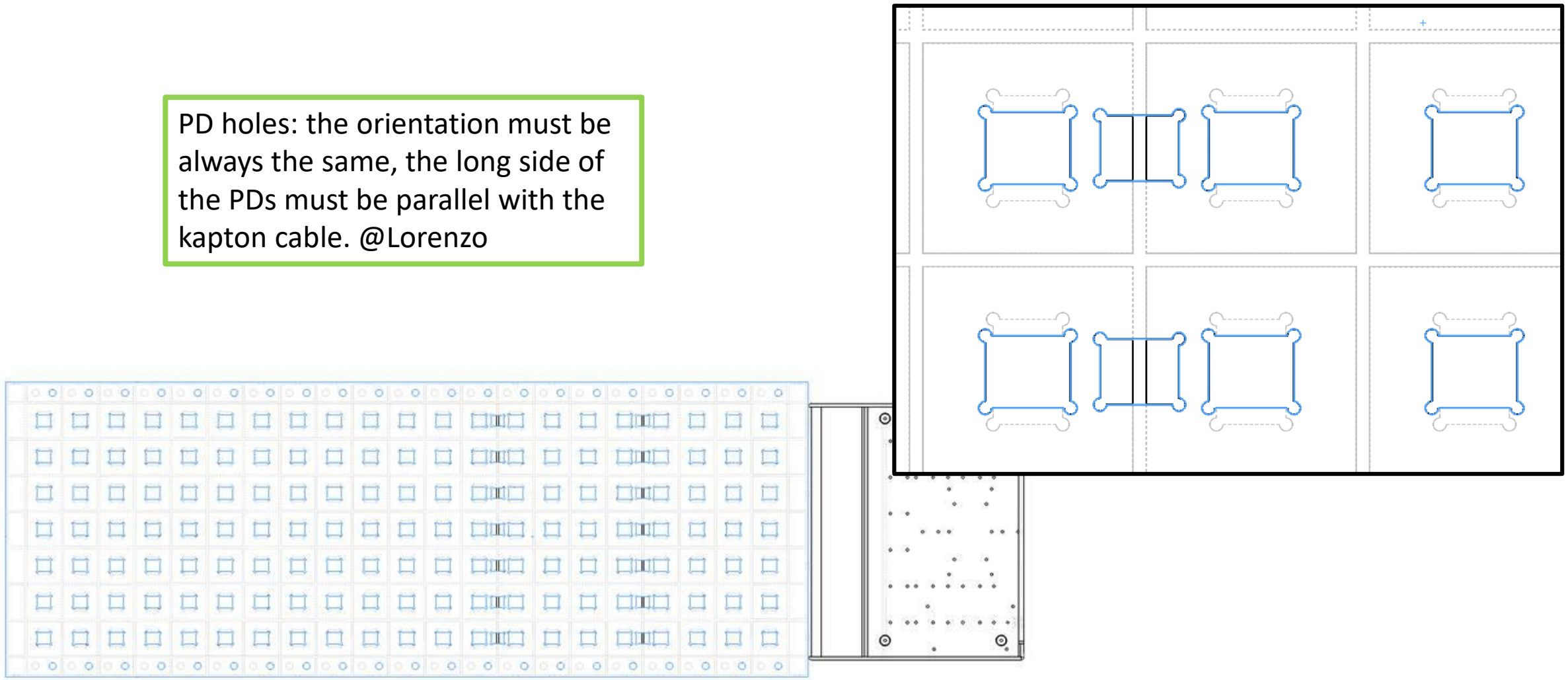


They should be in the opposite side. @Lorenzo

Issue #02

Holes for PD sensors are in different orientation depending on the tray. Blue is top tray, dashed line for other trays.

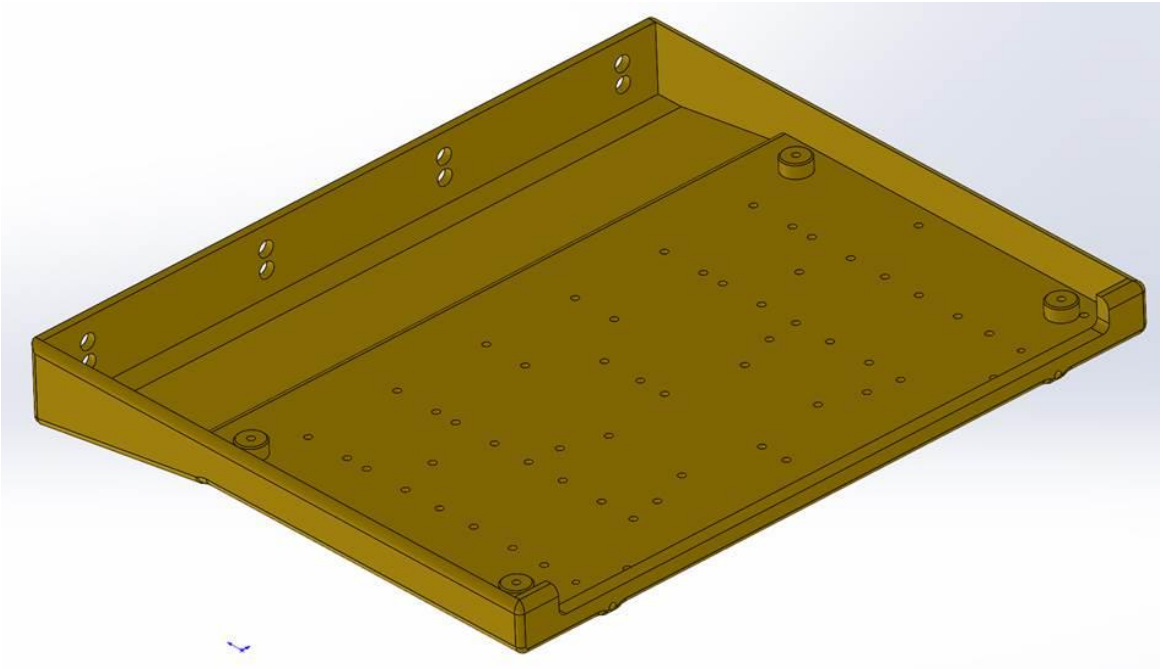
PD holes: the orientation must be always the same, the long side of the PDs must be parallel with the kapton cable. @Lorenzo

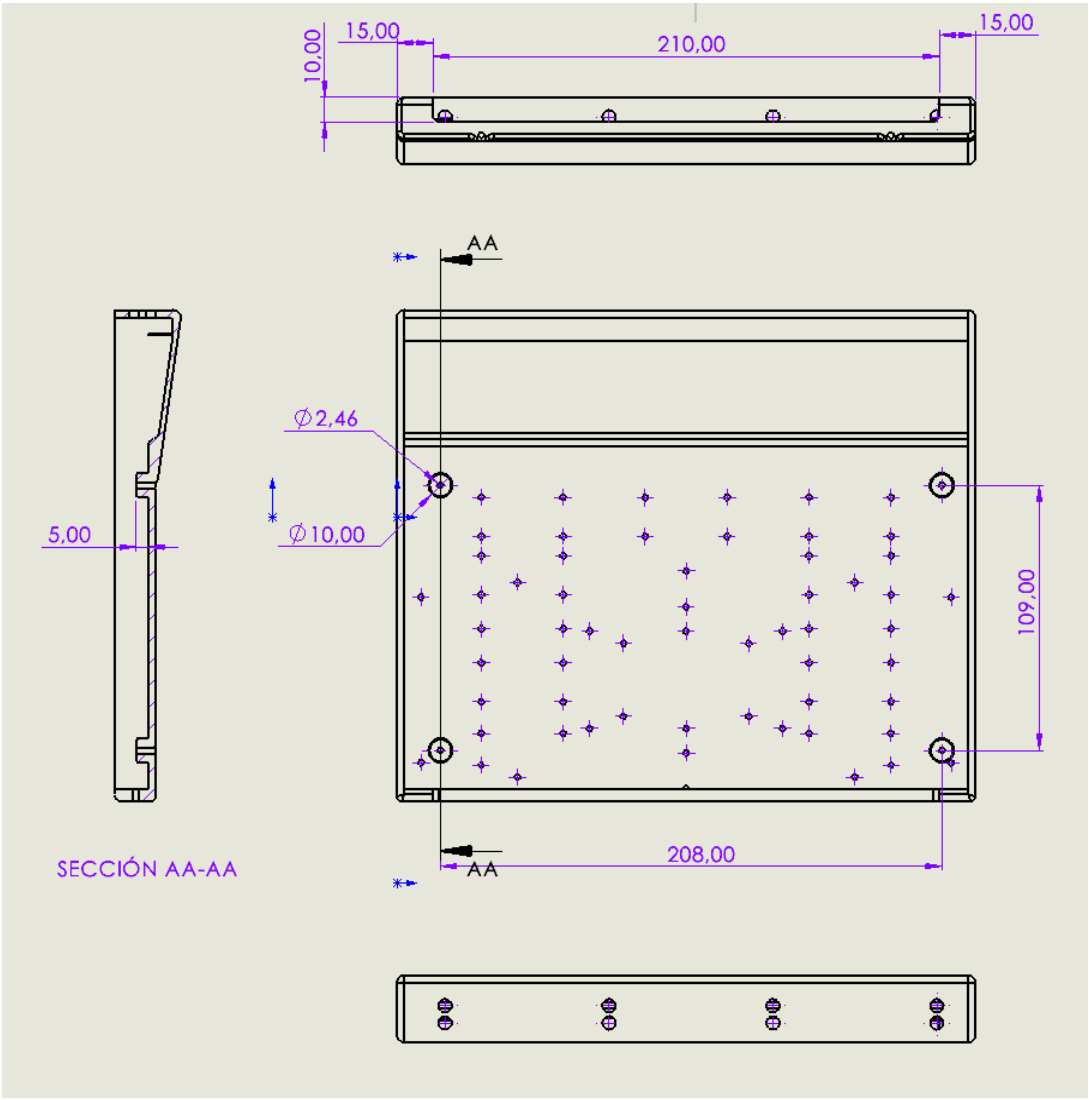


Issue #03

Towers for the interface between TROC2 and Frame are 10 mm diameter and 5 mm height.

They should be all 6 mm diameter maximum in order to avoid interferences with some components. @Jesus Marin

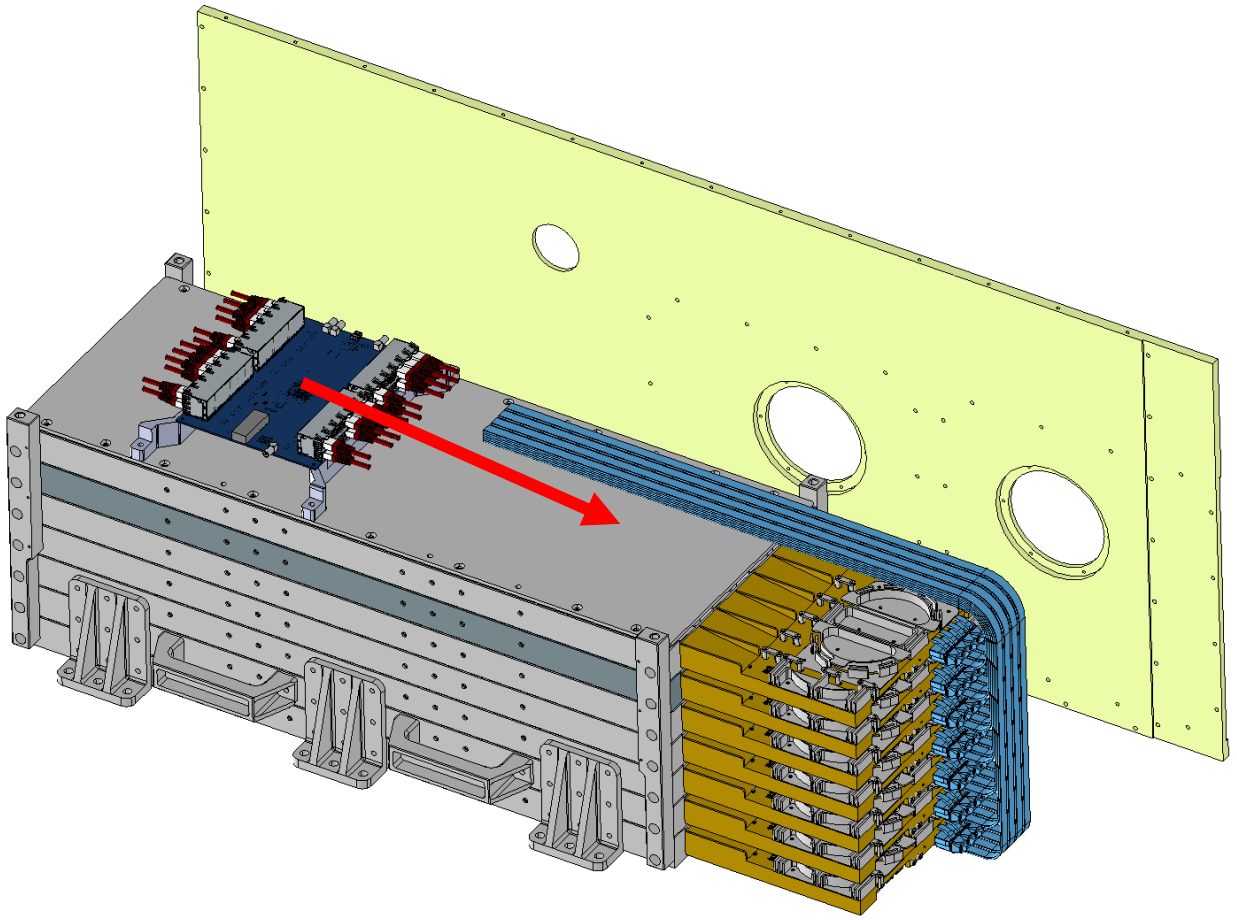




Issue #04

TROC1 not included in the current 3D model.
Moving TROC1 closer to the TROC2.

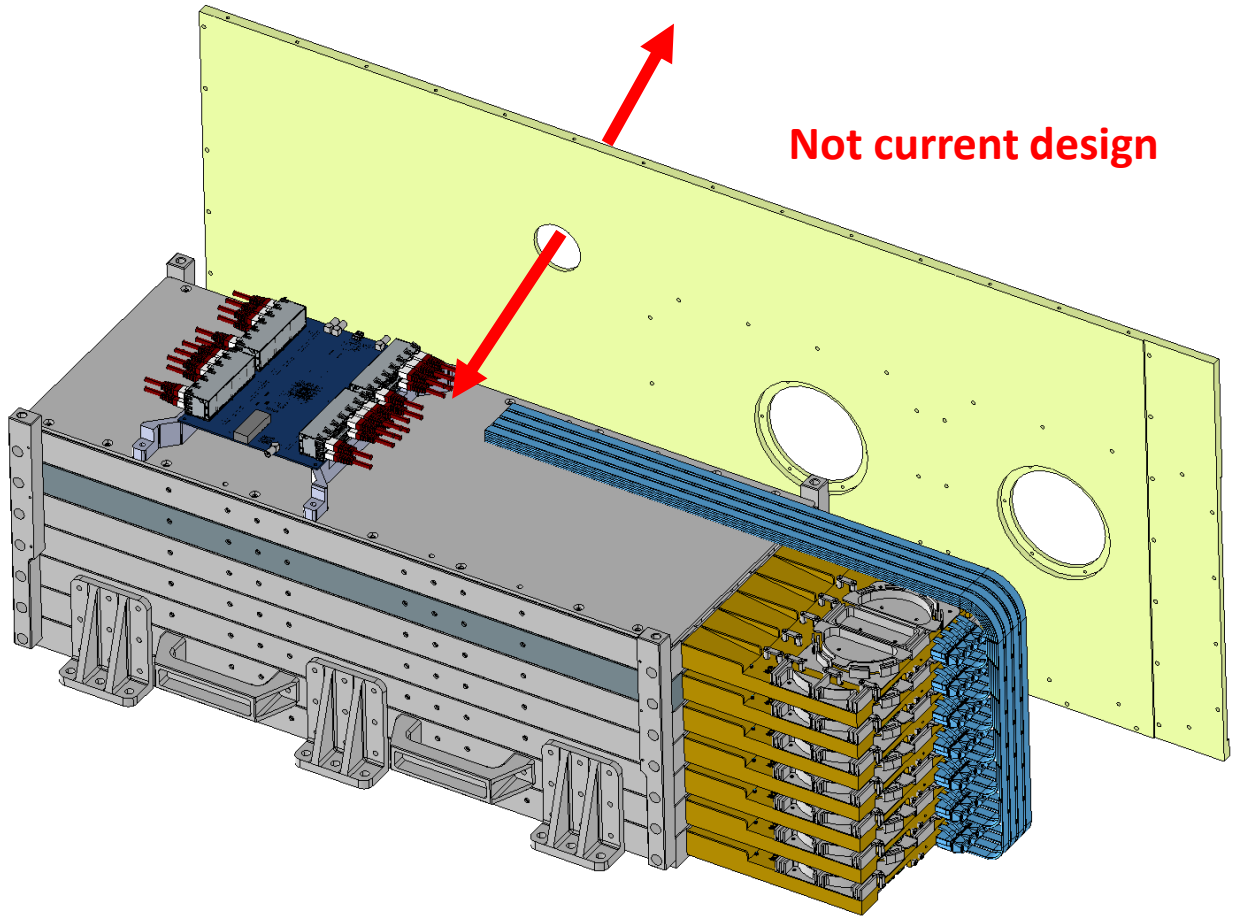
We propose to move the TROC1 board closer to the TROC2 in order to fit cable length.
We propose to include TROC1 3D model and we will provide the new location.



Issue #05

Cabling feedthrough not included in the current 3D model.

- In 2021 SPS test beam cables from TROC1 and TROC2 exit the black box through a 50mm circular hole in the lateral wall.



Issue #06

Access to the front panel of the TROC2 boards after assembly.

- Access should be granted during all the assembly and operations.

Is the front wall of the box removable?

Current design