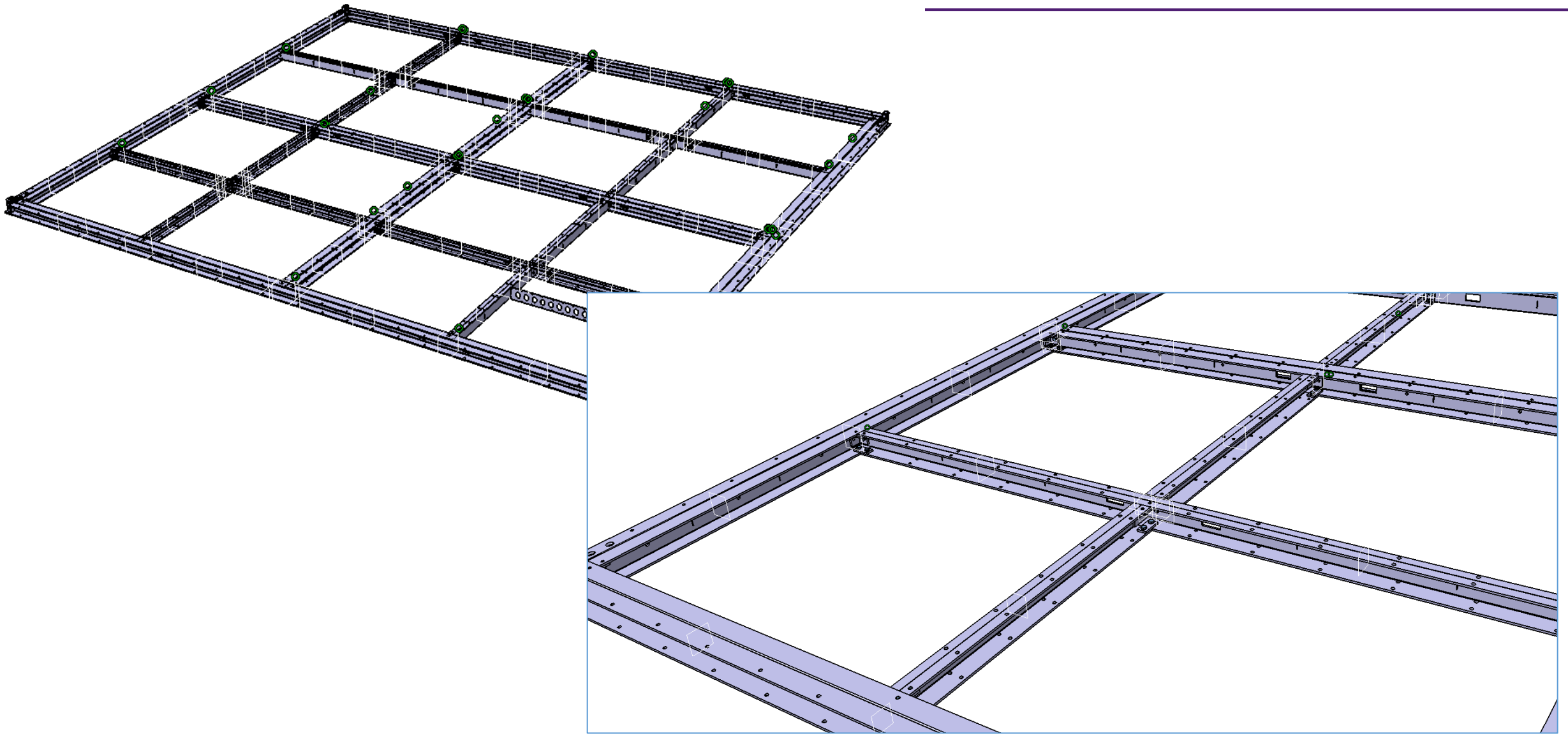


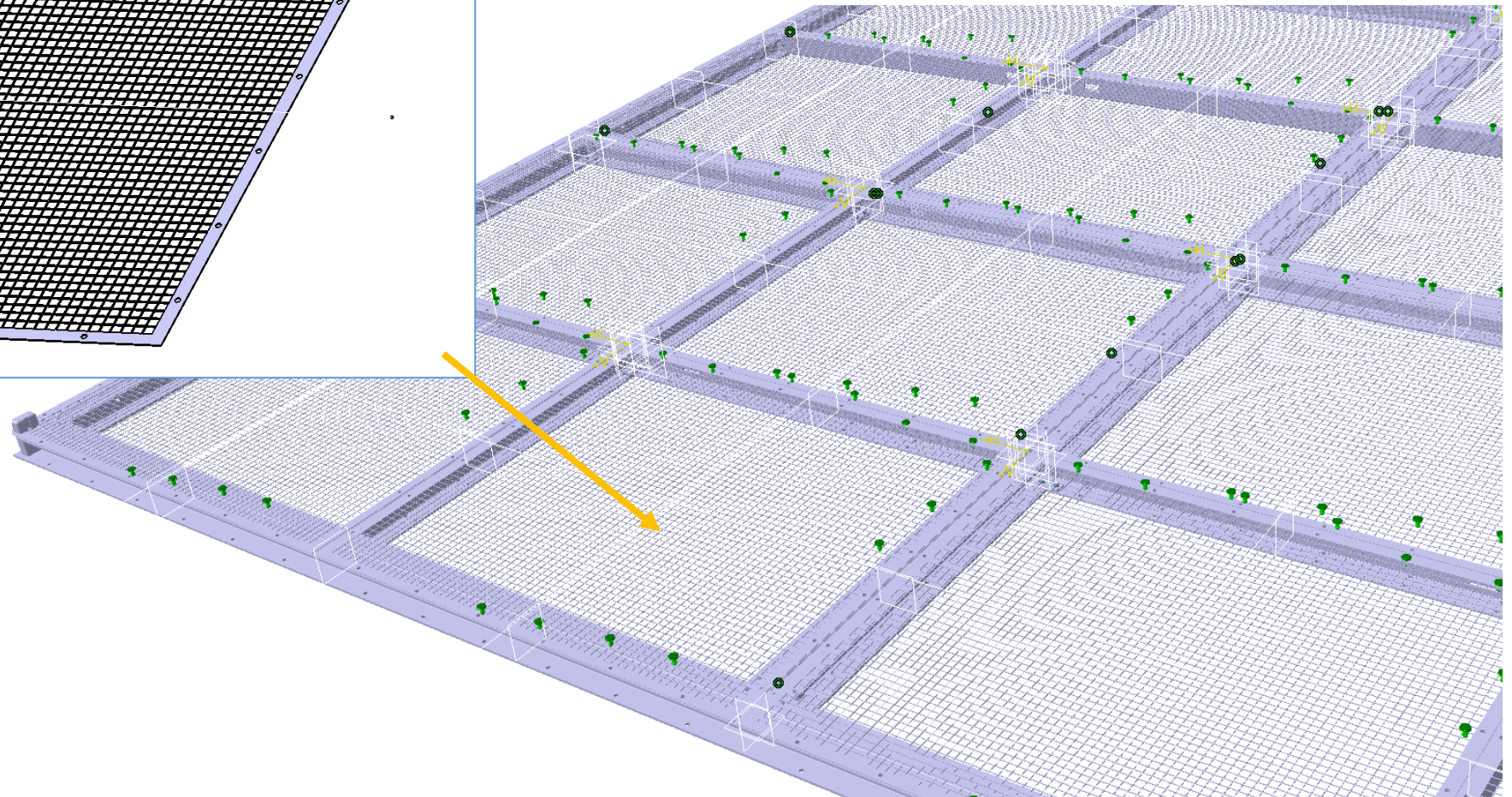
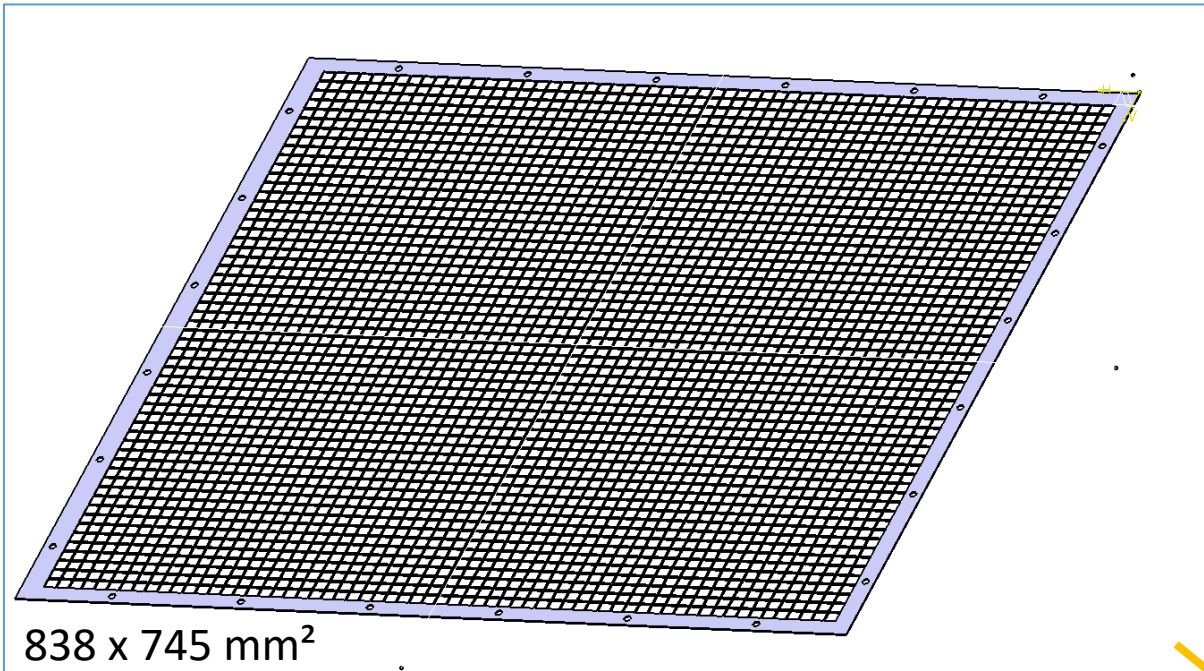


Arapuca in the cathode frame

The cathode ($3 \times 3.3 \text{ m}^2$) – made of U or H shape (40 or 80 mm width)



Keeping symmetry to get only one mesh size and few different bars types

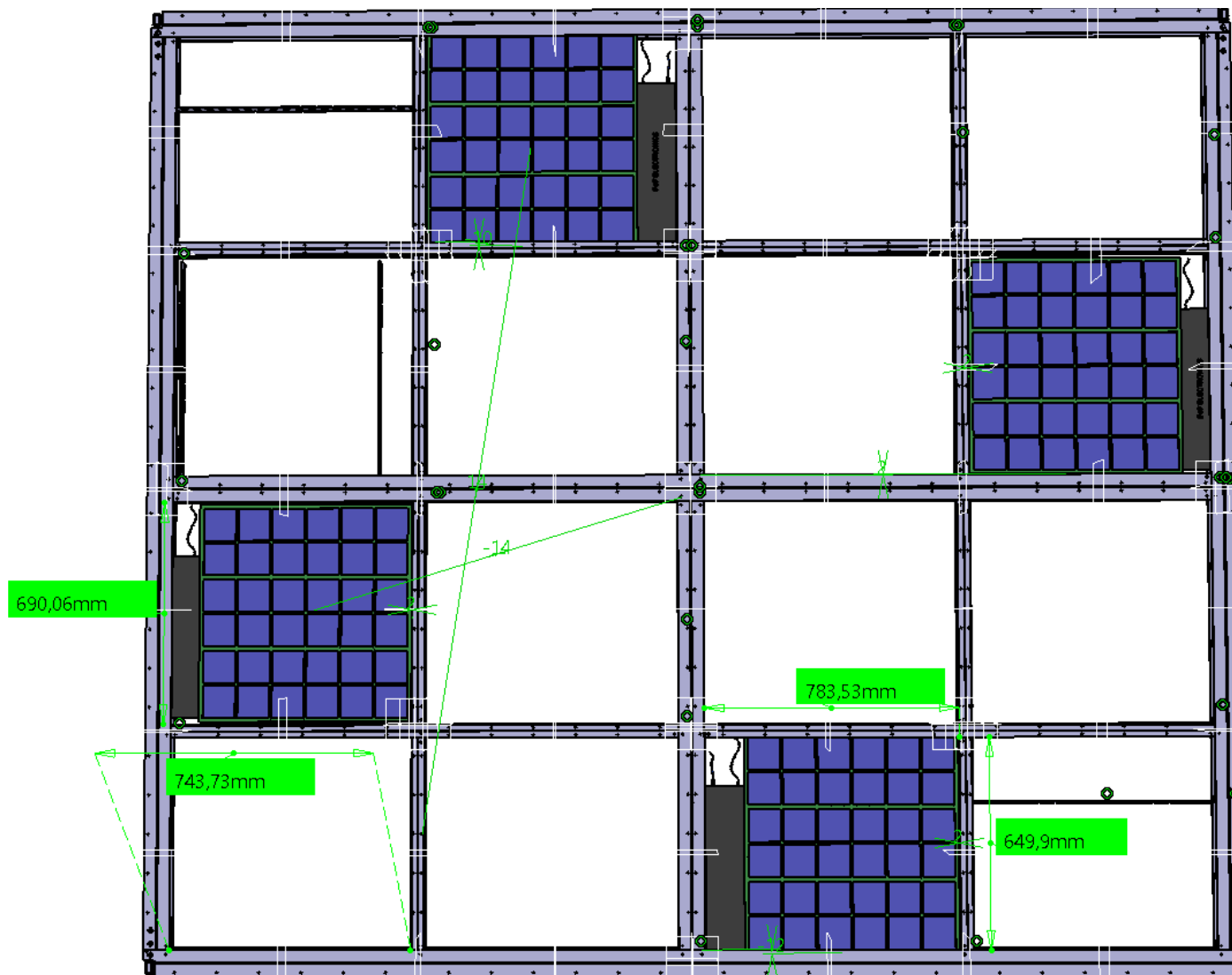


2 different holes sizes for arapuca inside frames

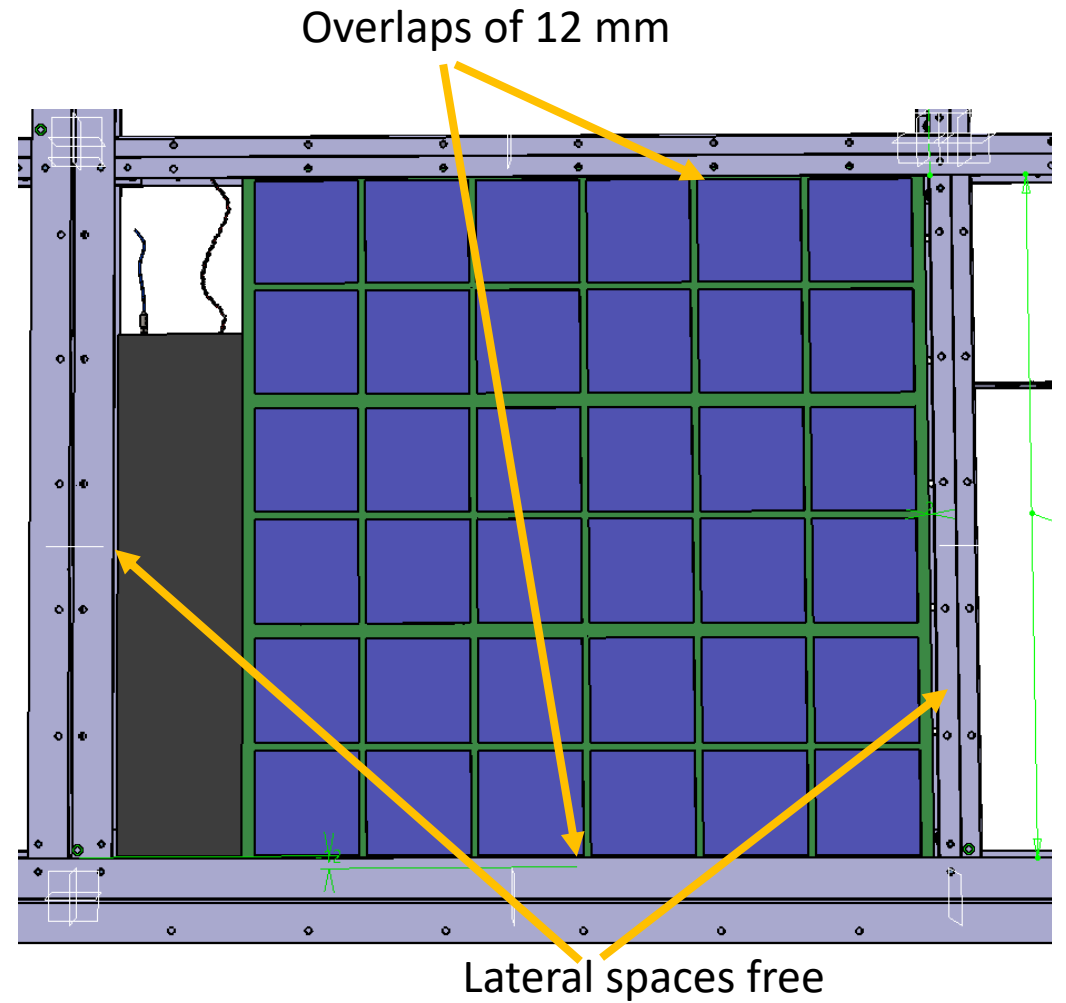
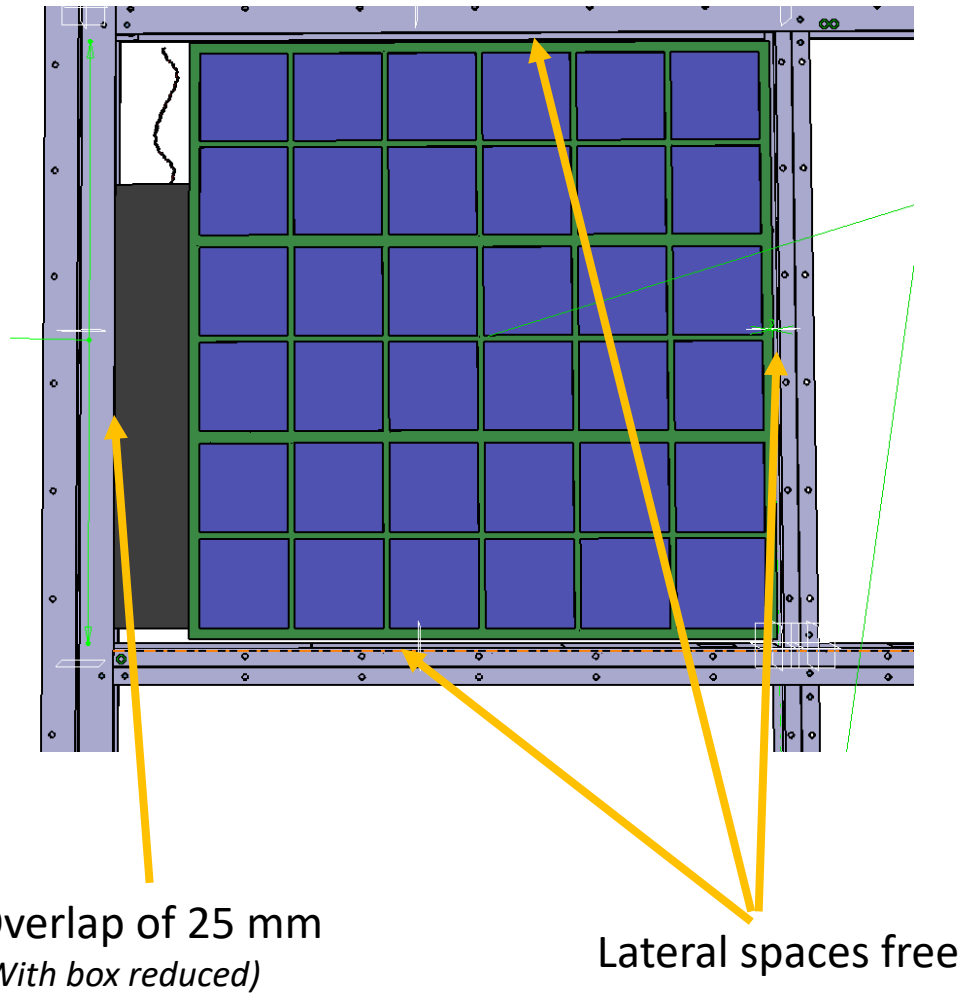
2 sizes:

- 690 x 743 mm²
- 649 x 783 mm²

=> Should have fit with 630x630 arapuca design !!



Arapuca in the 2 holes



Arapuca electronic box to be reduced

630x630 mm²

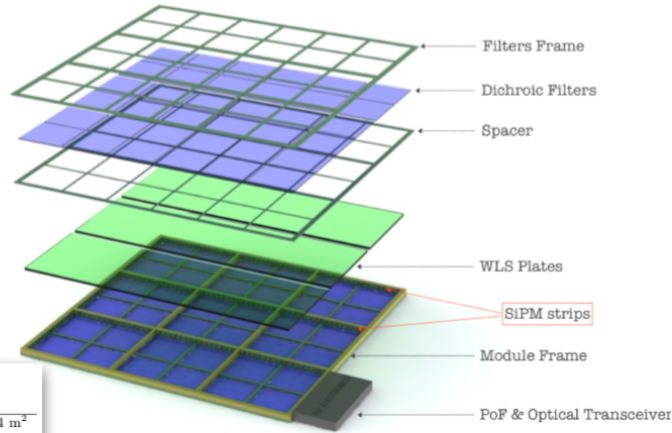
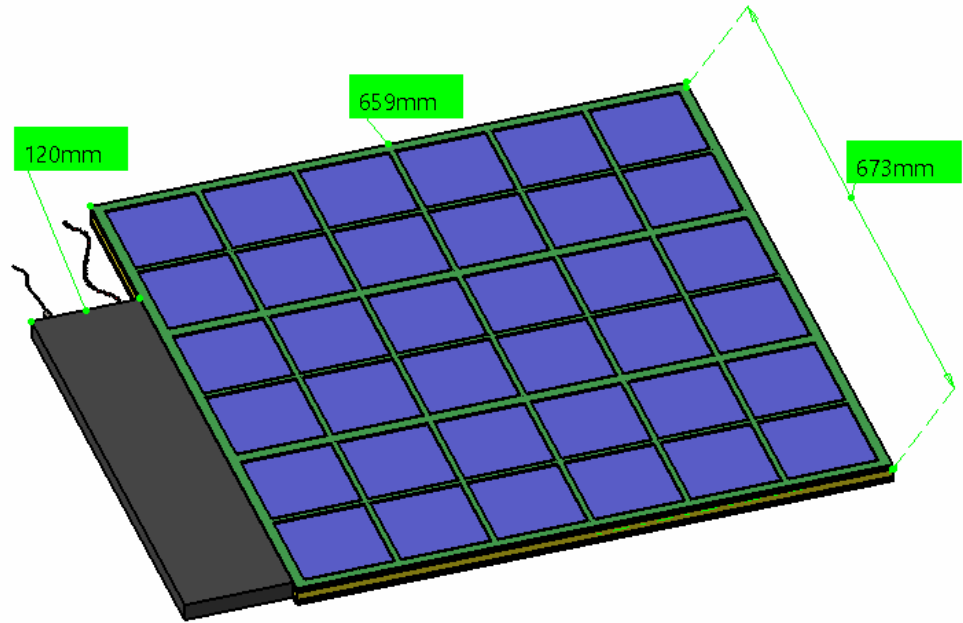
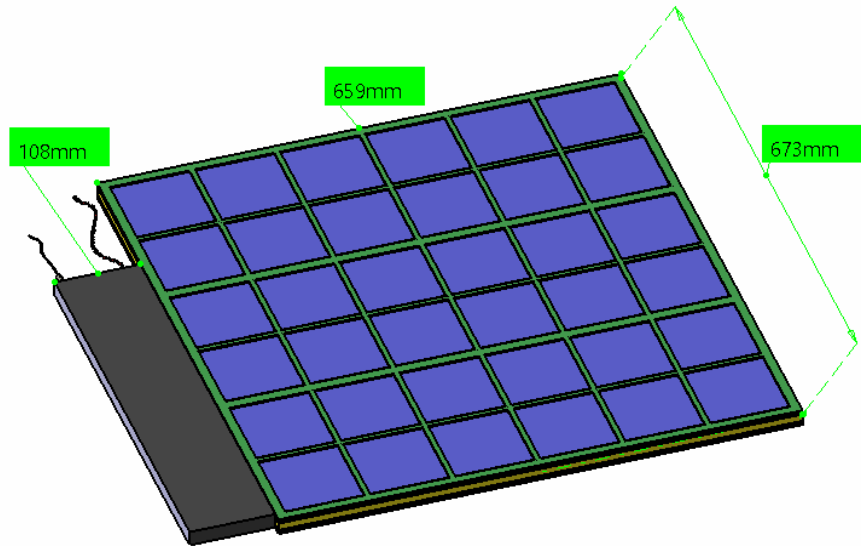


TABLE III. PD basic unit: X-ARAPUCA Tile		
	Quantity	Dimensions
Area	1	630 × 630 mm ² = 0.4 m ²
Thickness	1	22 mm
Weight	1	~ 4.5 kg
Optical Area	2 (two-sided)	600 × 600 mm ² = 0.36 m ²
Sectors ("MegaCell")	3	600 × 200 mm ² = 0.12 m ²
Dichroic Filters	36 × 2	100 × 100 mm ²
WLS plates	3	600 × 200 mm ² = 0.12 m ²
PhotoSensors (SiPM)	360	6 × 6 mm ²
Read-out Channels	3	
SiPMs per channel	120	

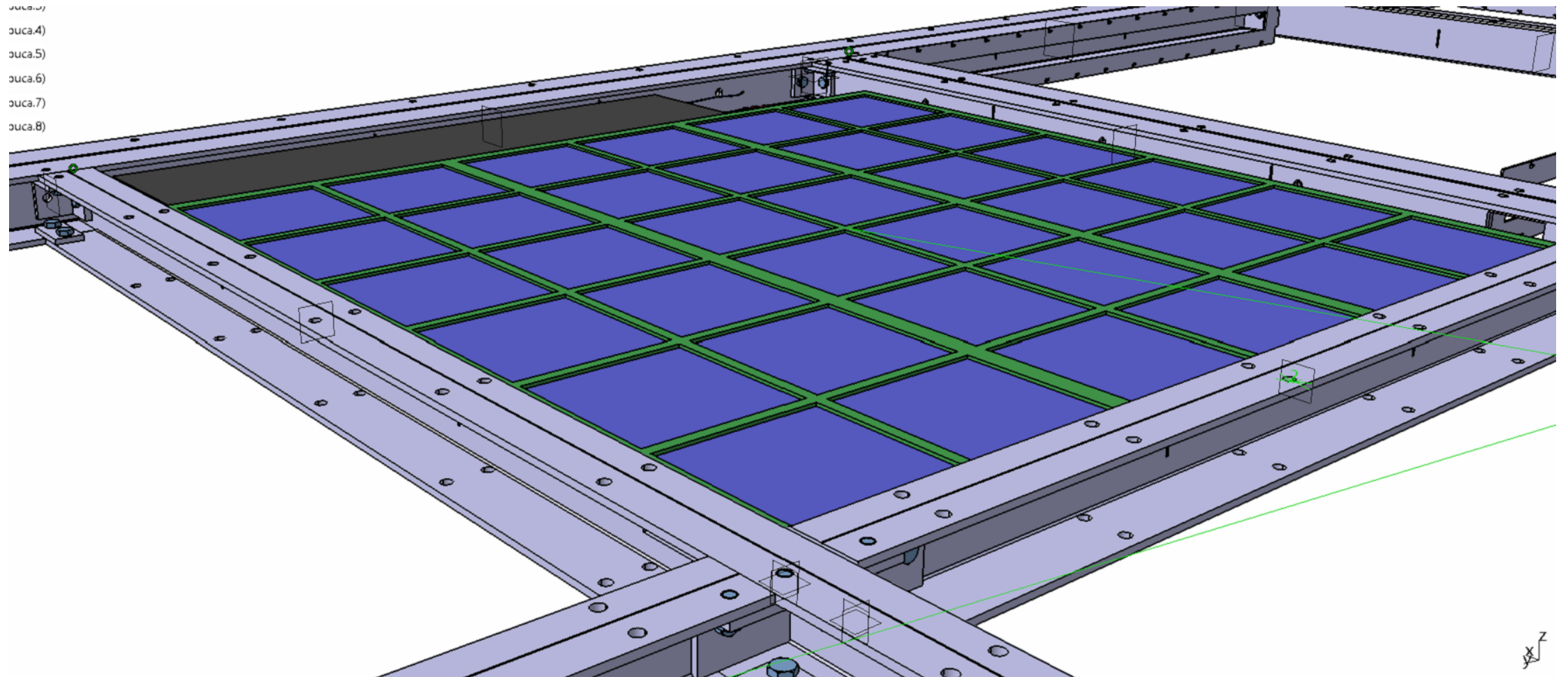


659 x 673 mm²
+ electronic box 120 mm



659 x 673 mm²
+ electronic box 108mm

Box inside the U shape



Mass problem

With density mixed
between plastic and
epoxy glass fiber

