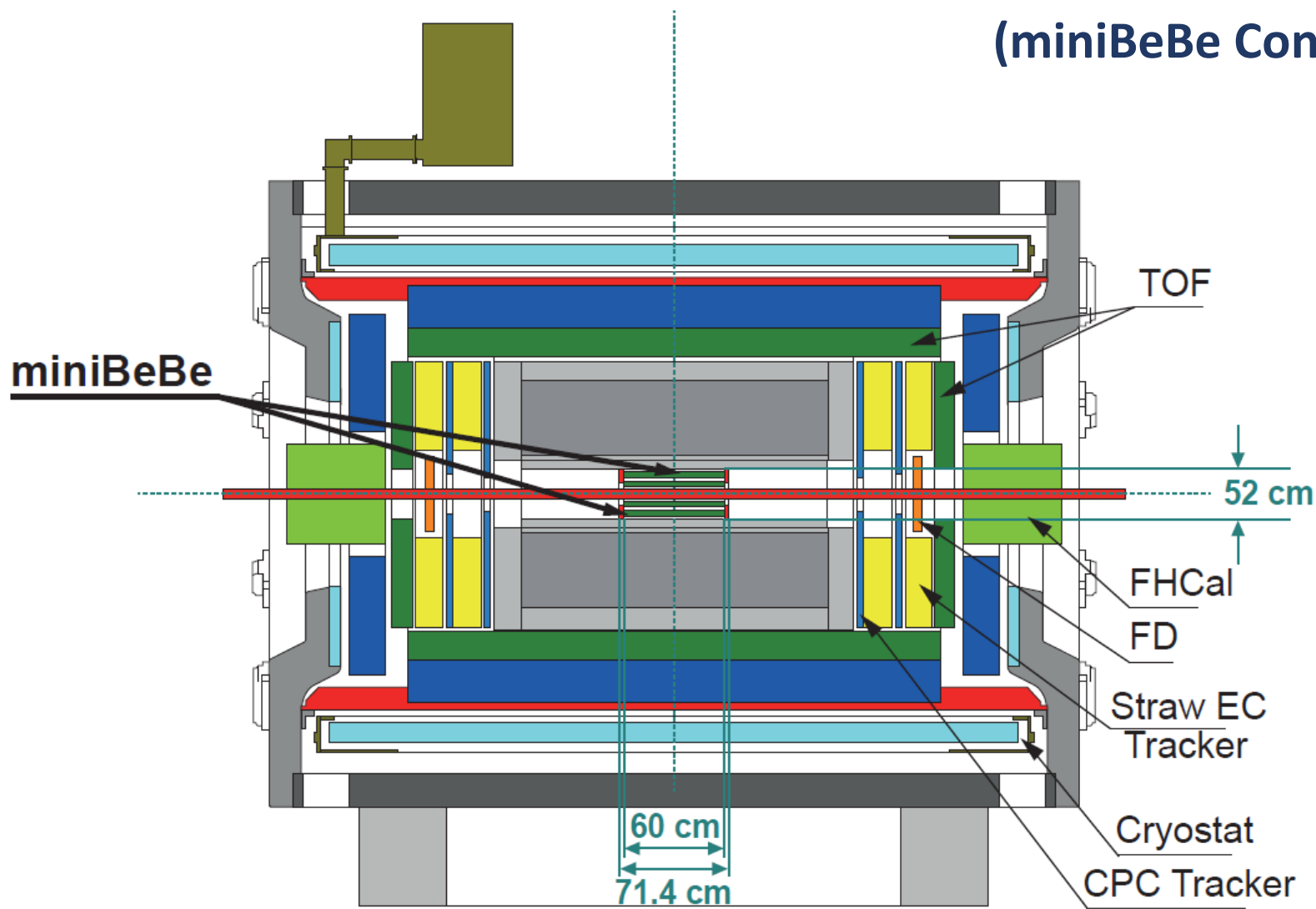


Mechanical structure support of detector (Prototype)

M. Enrique Patiño Salazar
Mauricio Alvarado Hernández
Ramón Acevedo Kado

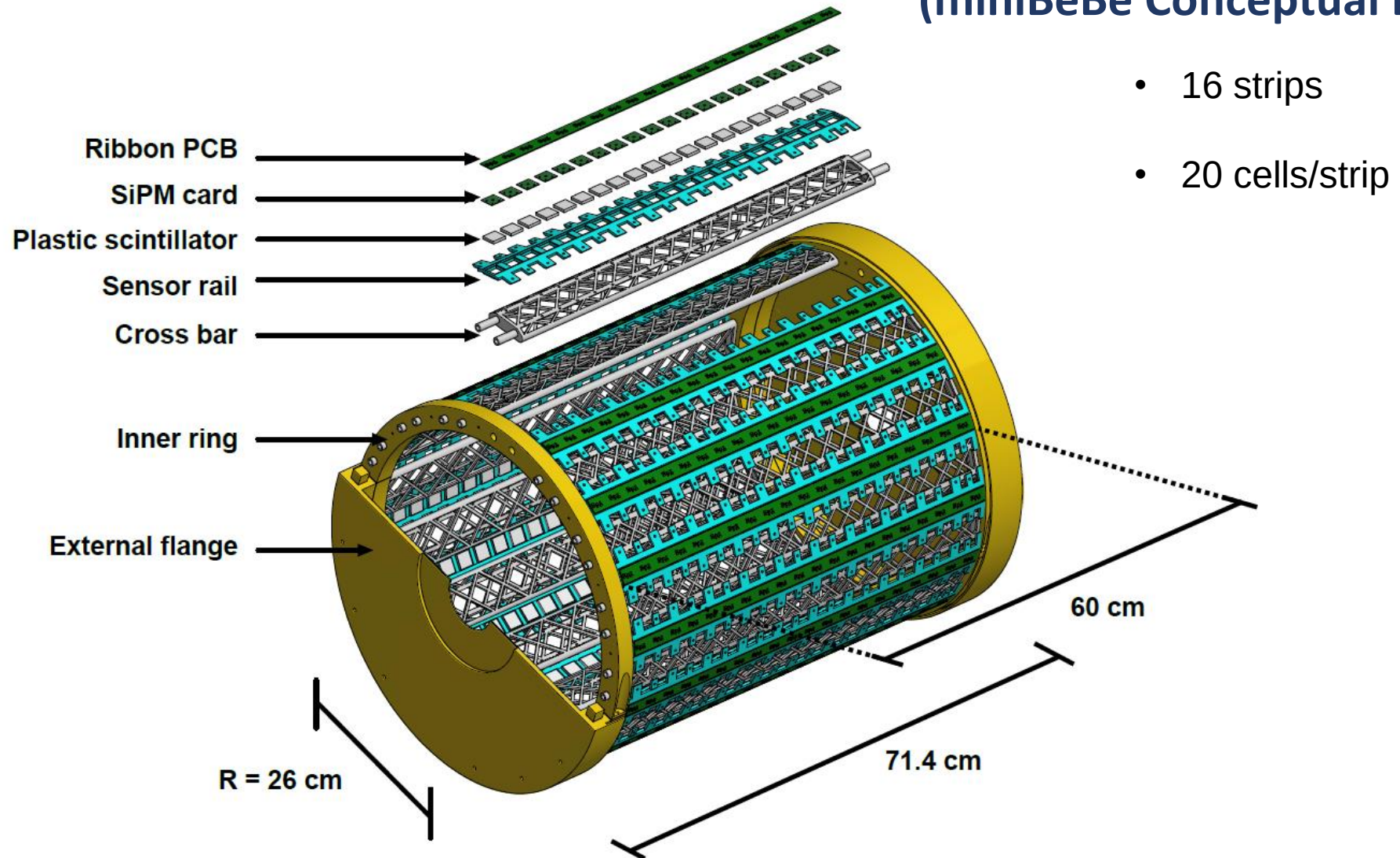
LOCATION OF THE miniBeBe DETECTOR

(miniBeBe Conceptual Design)



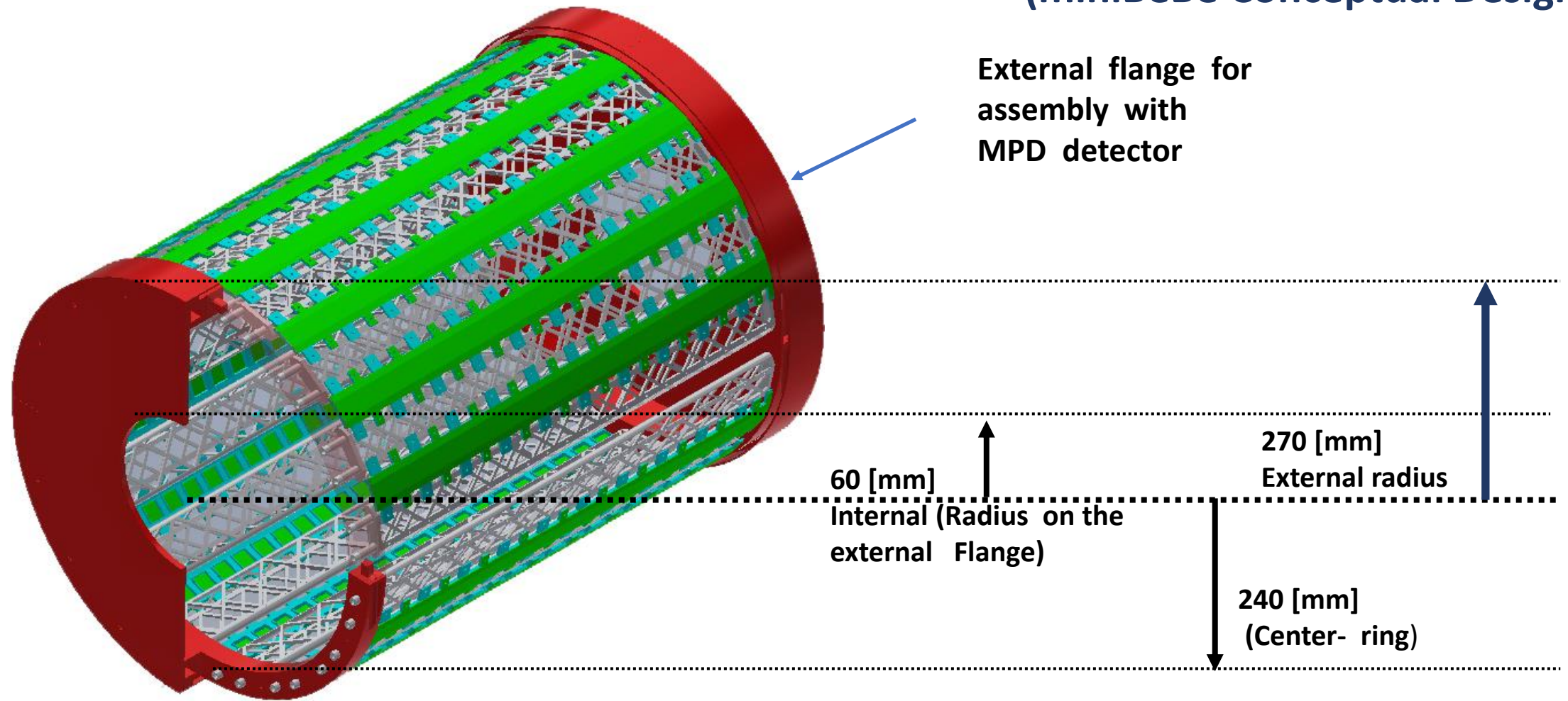
ASSEMBLY OF miniBeBe DETECTOR COMPONENTS

(miniBeBe Conceptual Design)

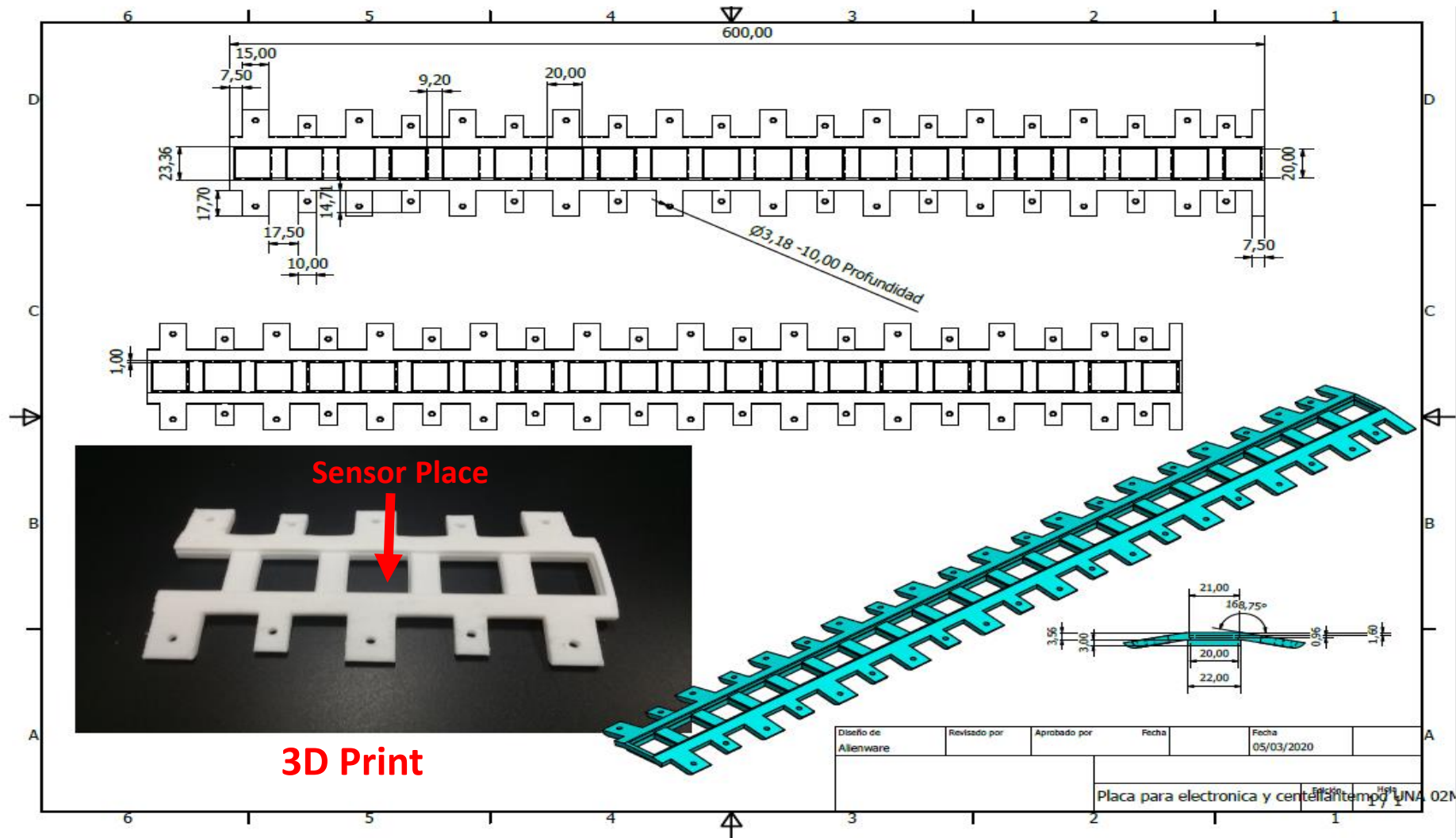


DETECTOR'S RADIUS

(miniBeBe Conceptual Design)



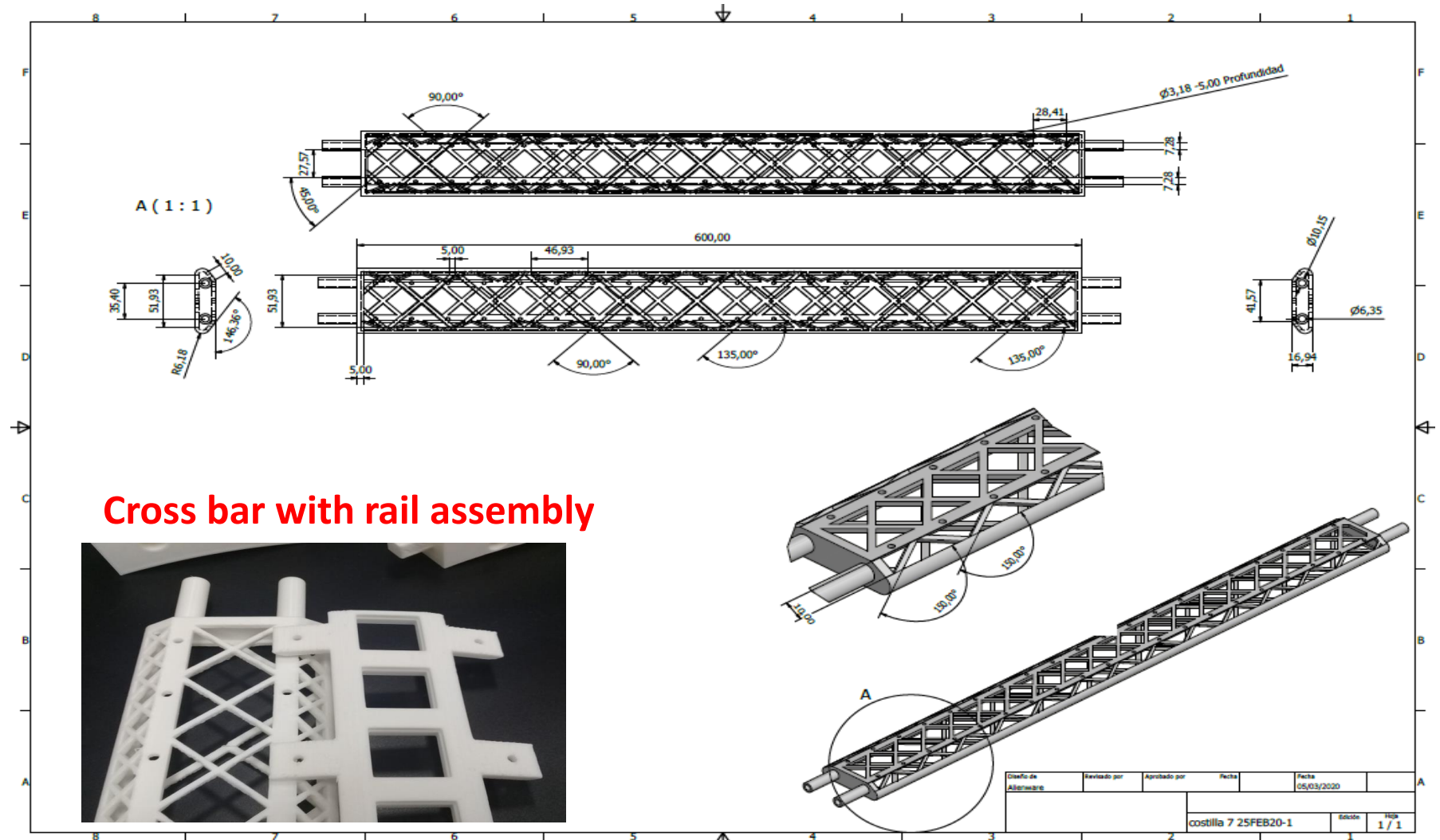
Sensors Rail (CAD)



Cross bar

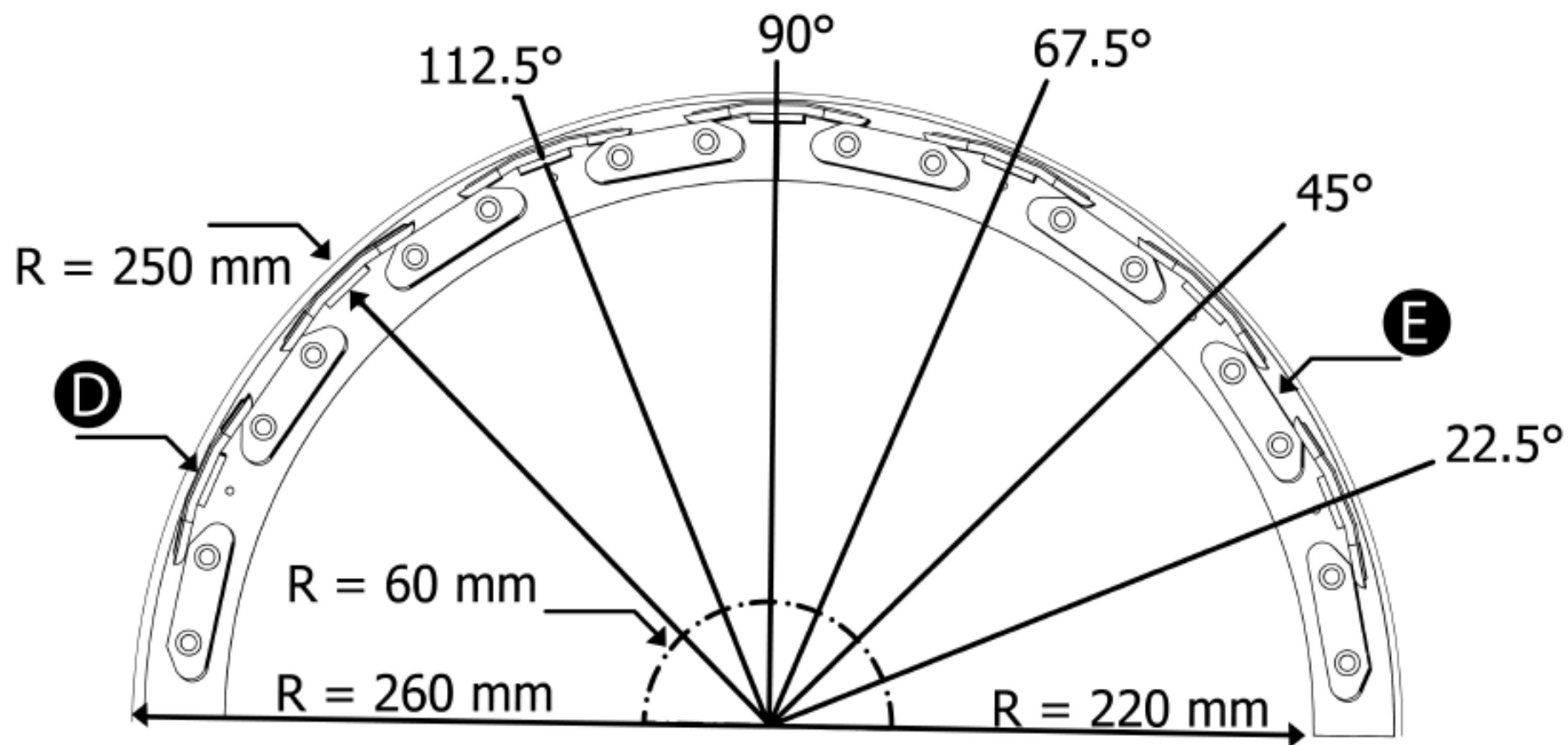
Characteristics:

1. Transverse stiffness for the assembly of rails, rings and flanges.
2. Lightweight structure.
3. In finite element analysis does not show deformation along the 60cm.

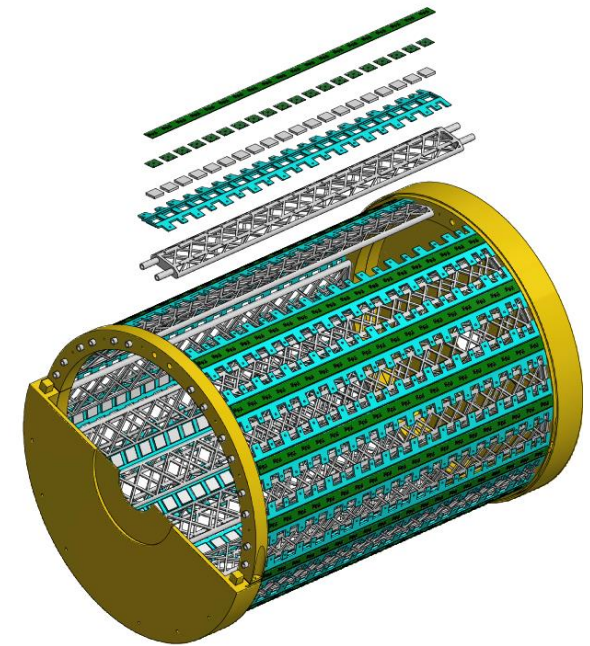
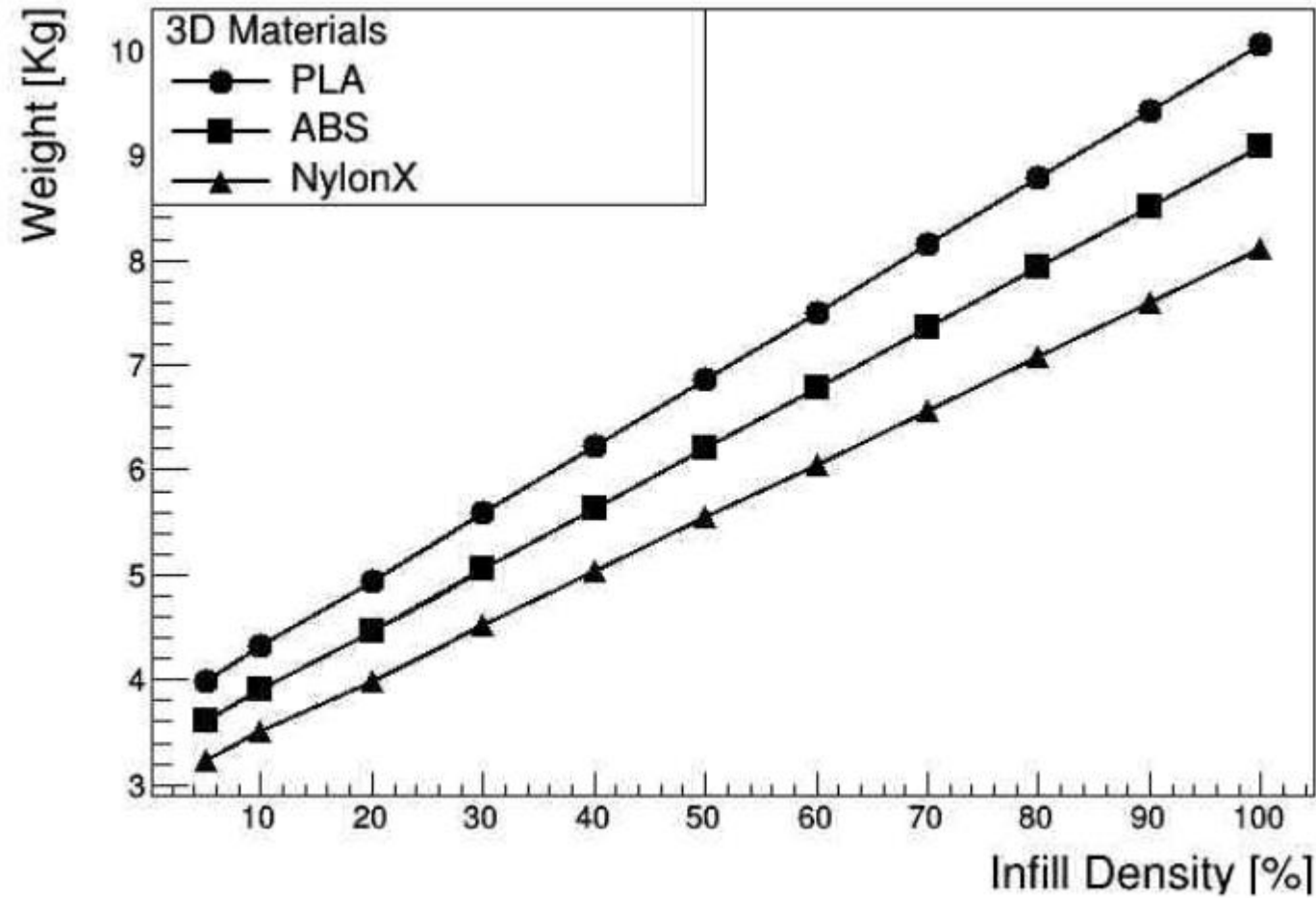


3D print

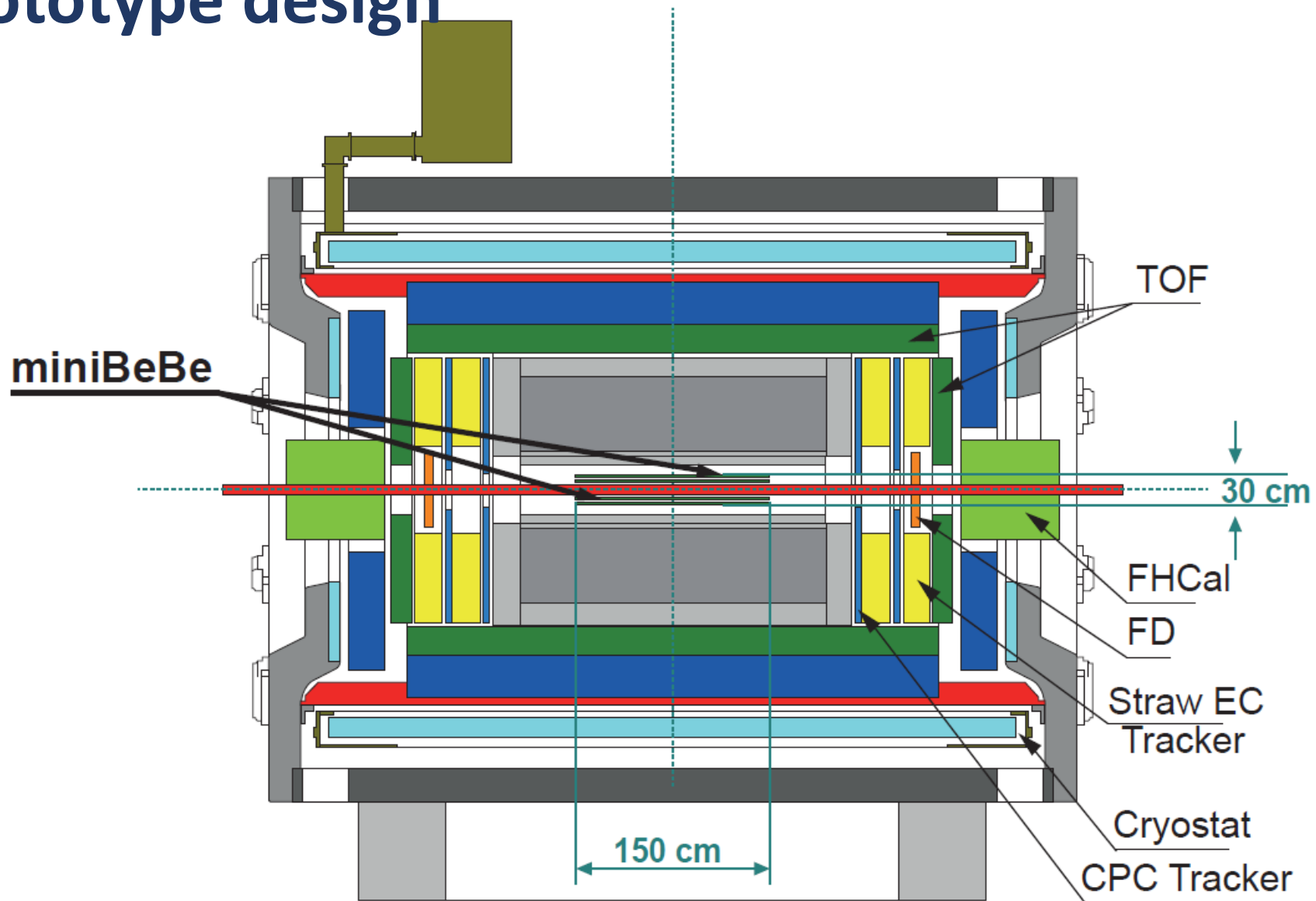
Transverse plane view of sensor rails array

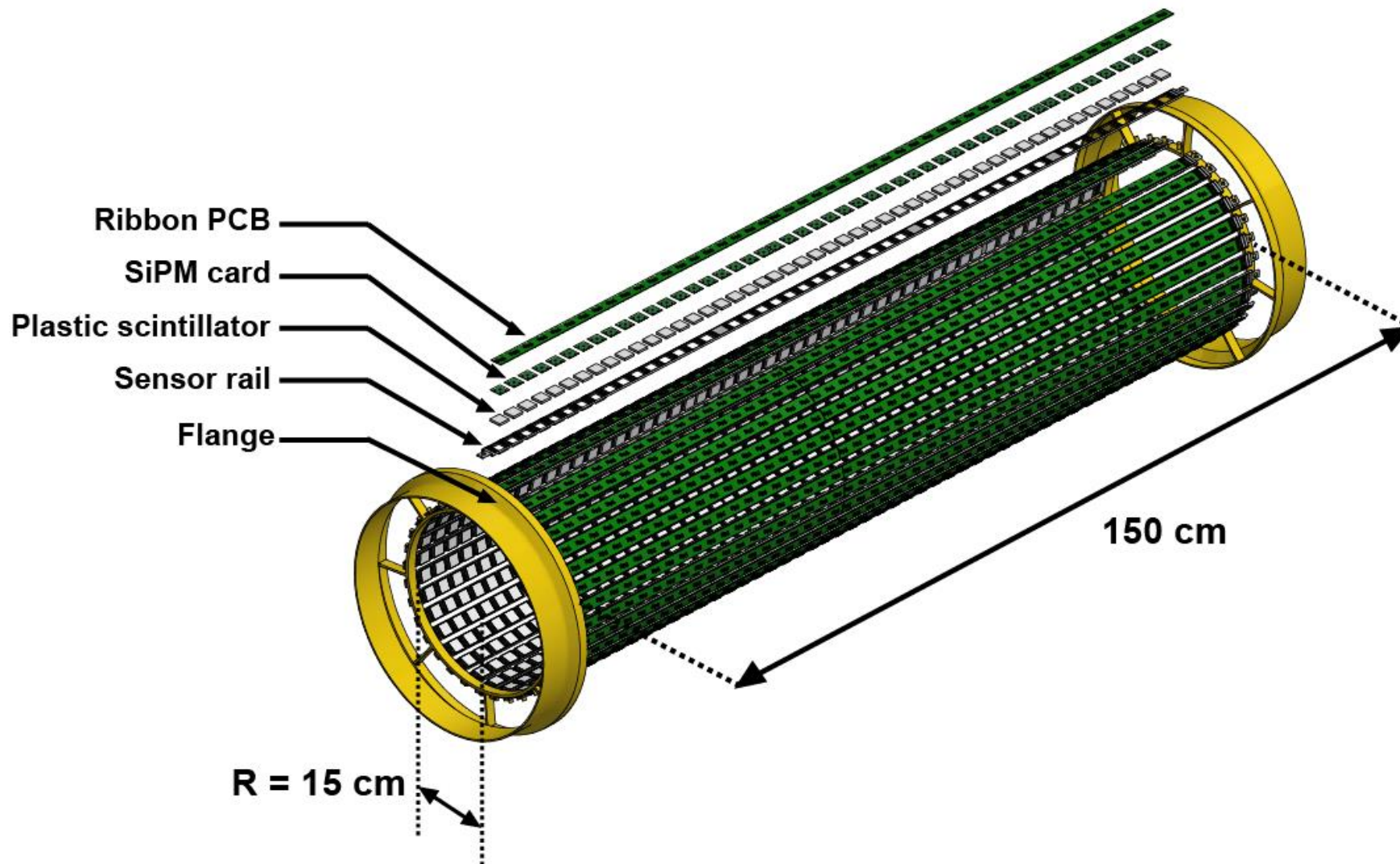


Estimated weight



New prototype design

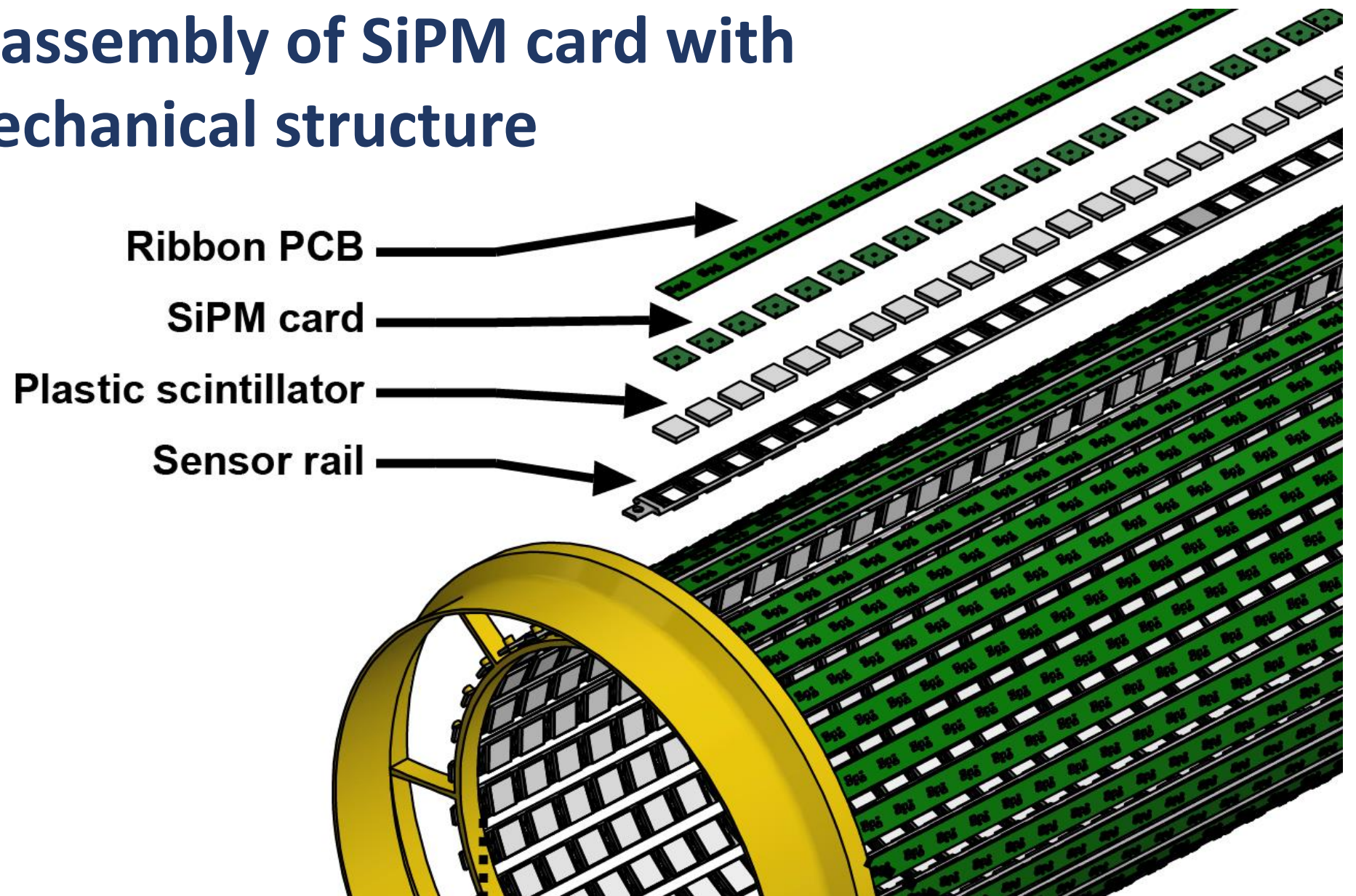




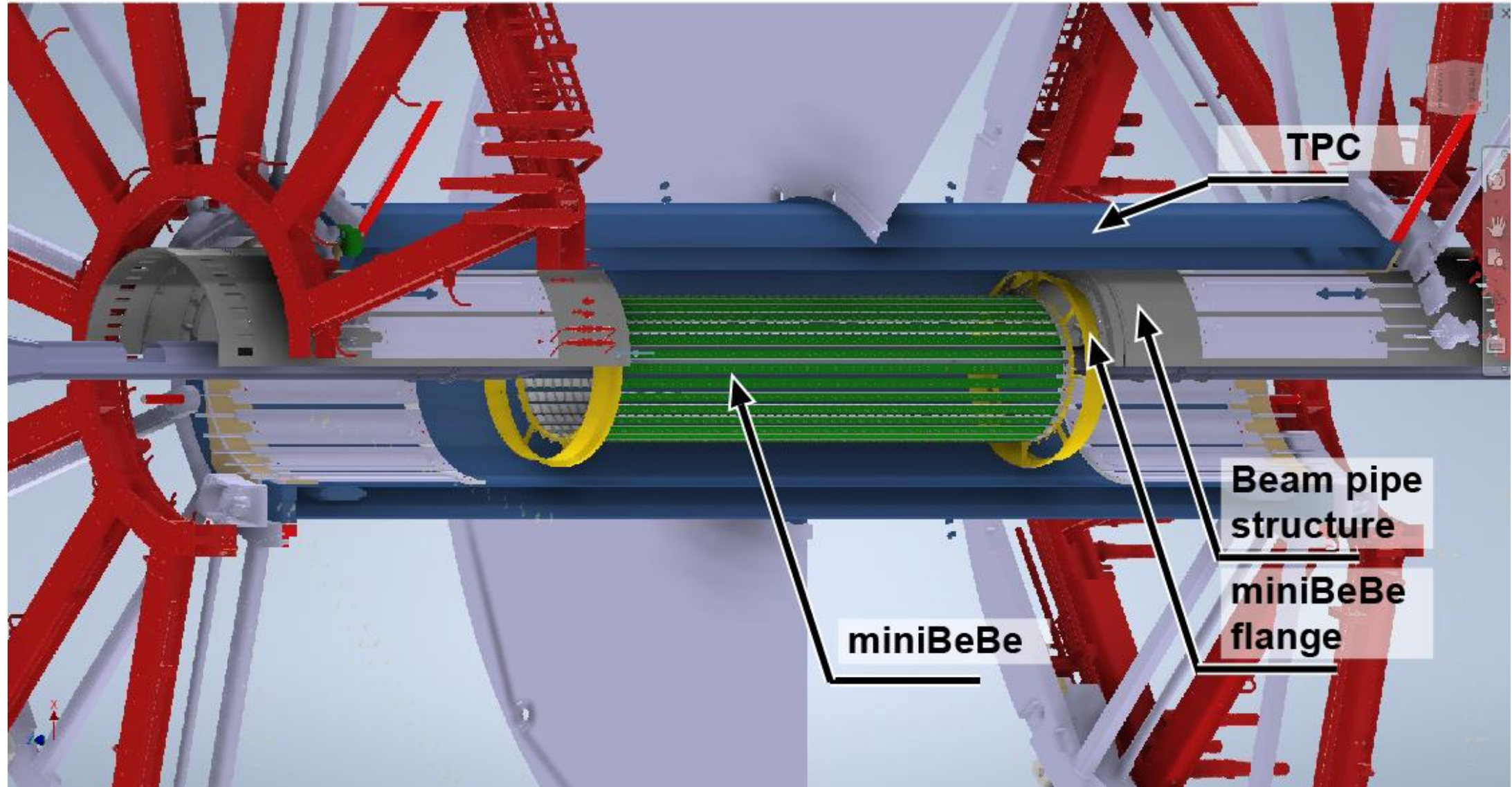
- 32 strips
- 48 cells/strip

L=150 cm , R=15 cm

Mechanical assembly of SiPM card with clamping mechanical structure



miniBeBe @ MPD



We can work on the mechanical design for future changes and finite element studies.