

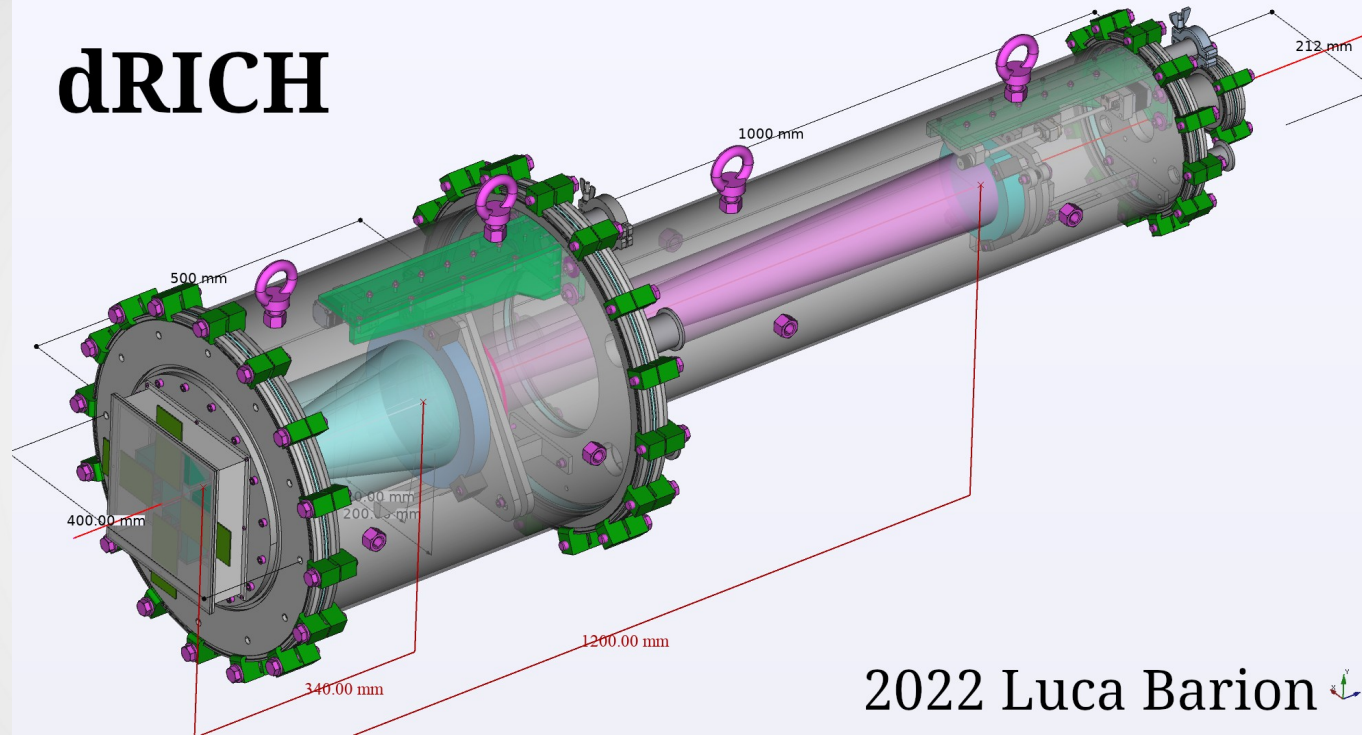


dRICH Meeting 2023-07-19

*Luca Barion*

# Summary

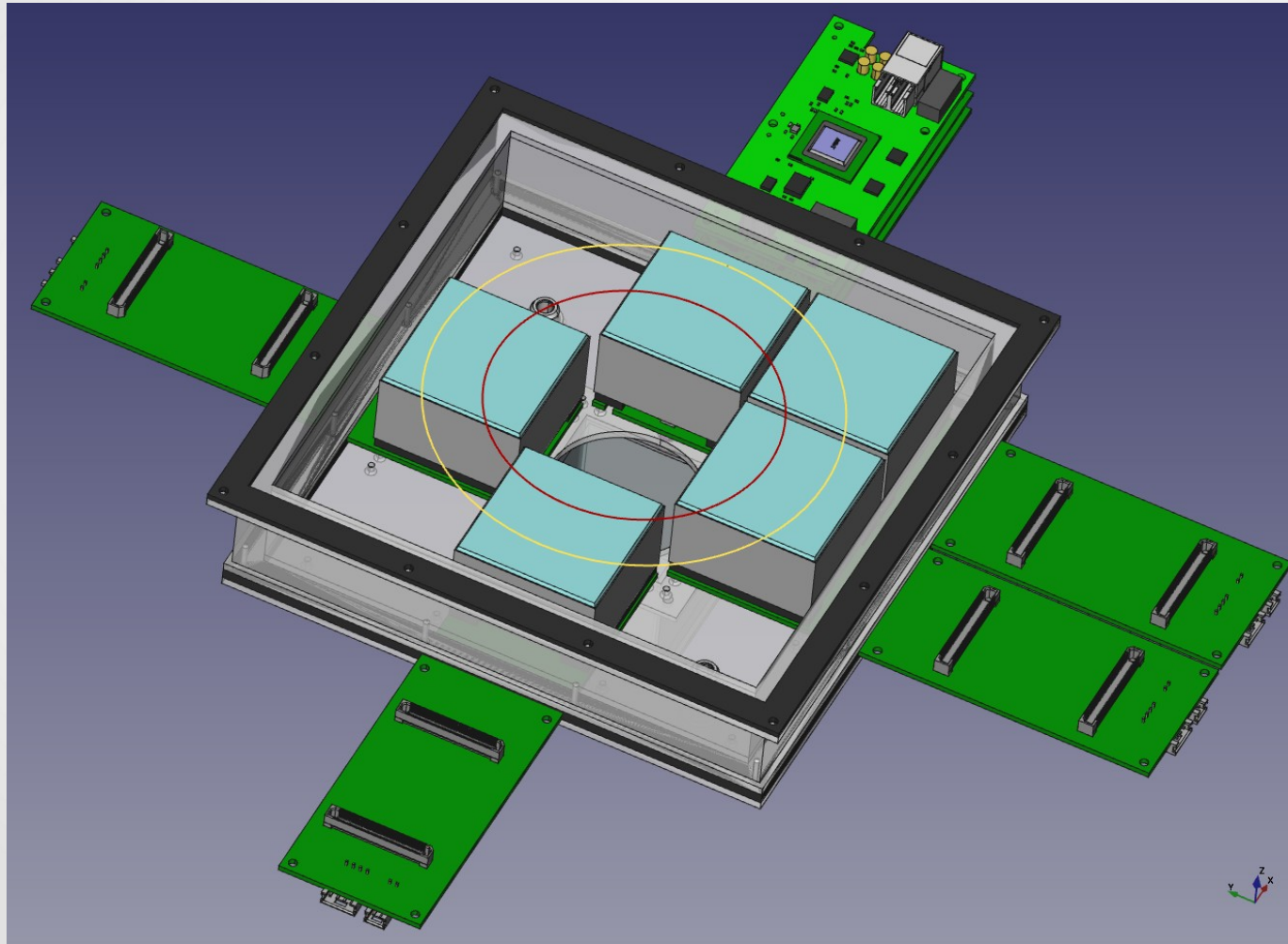
## dRICH



2022 Luca Barion 

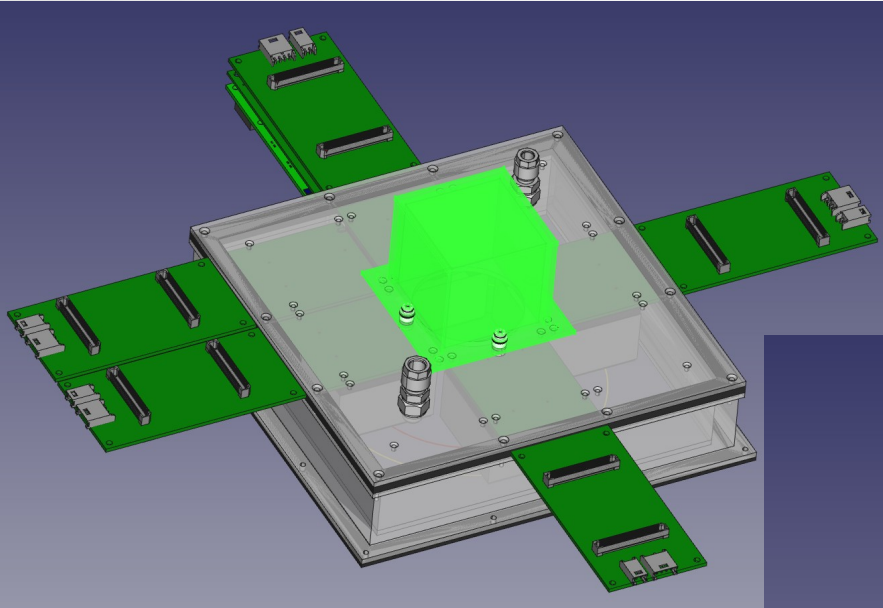
- Modification to 2021 “PMT box” (for Aug 2023)
- Readout box for “dRICH prototype box” (for October 2023)

# Modification to 2021 PMT box for Aug 2023

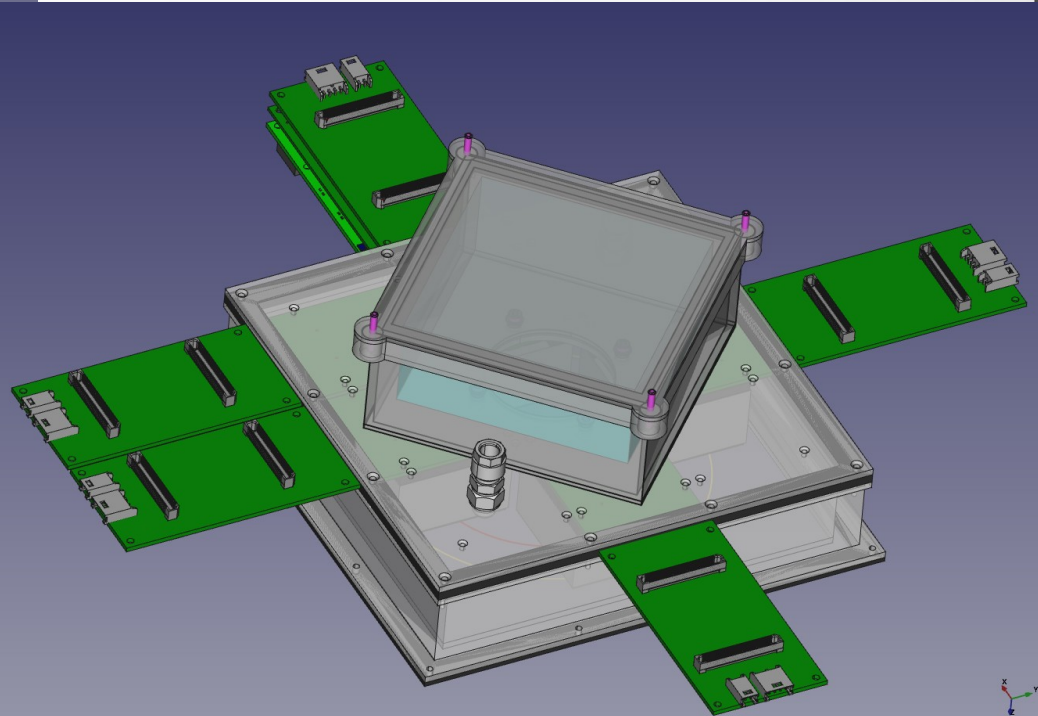


# New ASA box for holding bigger aerogel tiles

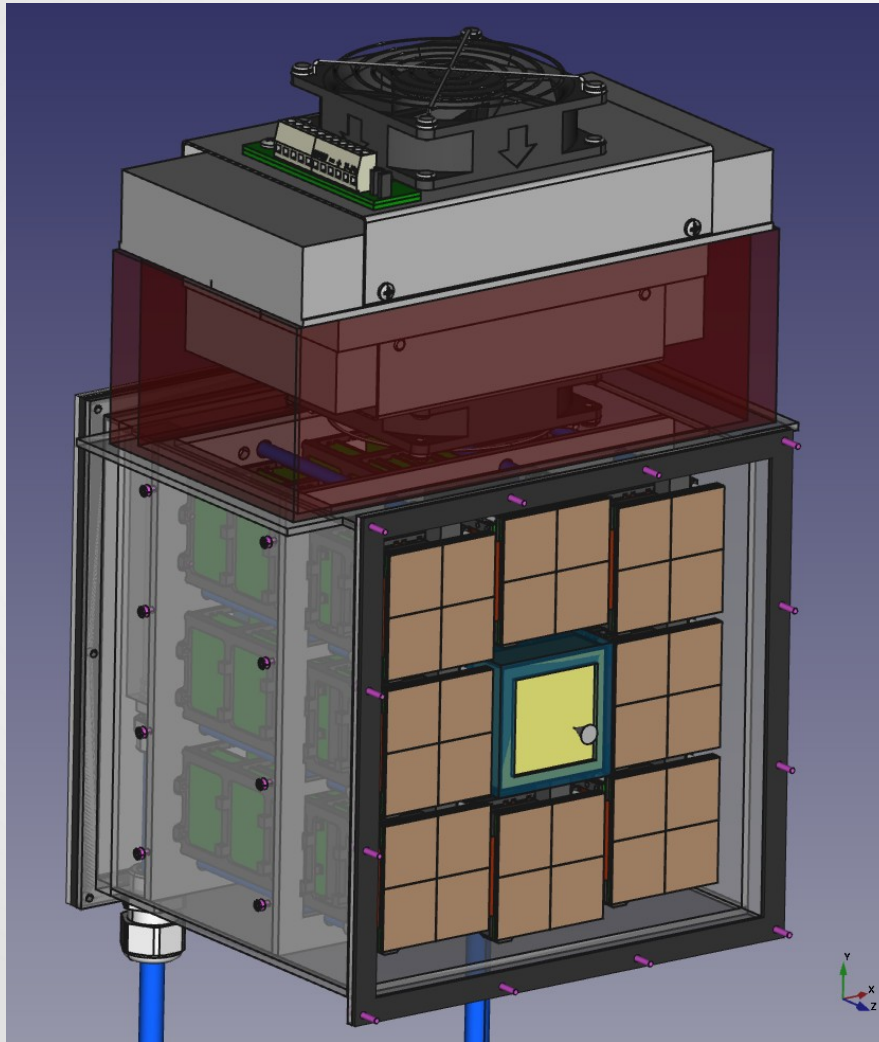
<== Original design tested in 2021  
(for Aerogel up to 50x50x50 mm<sup>3</sup>)



**New 2023 design ==>  
(for Aerogel up to 100x100x40 mm<sup>3</sup>)**



# Readout box for dRICH prototype for October 2023

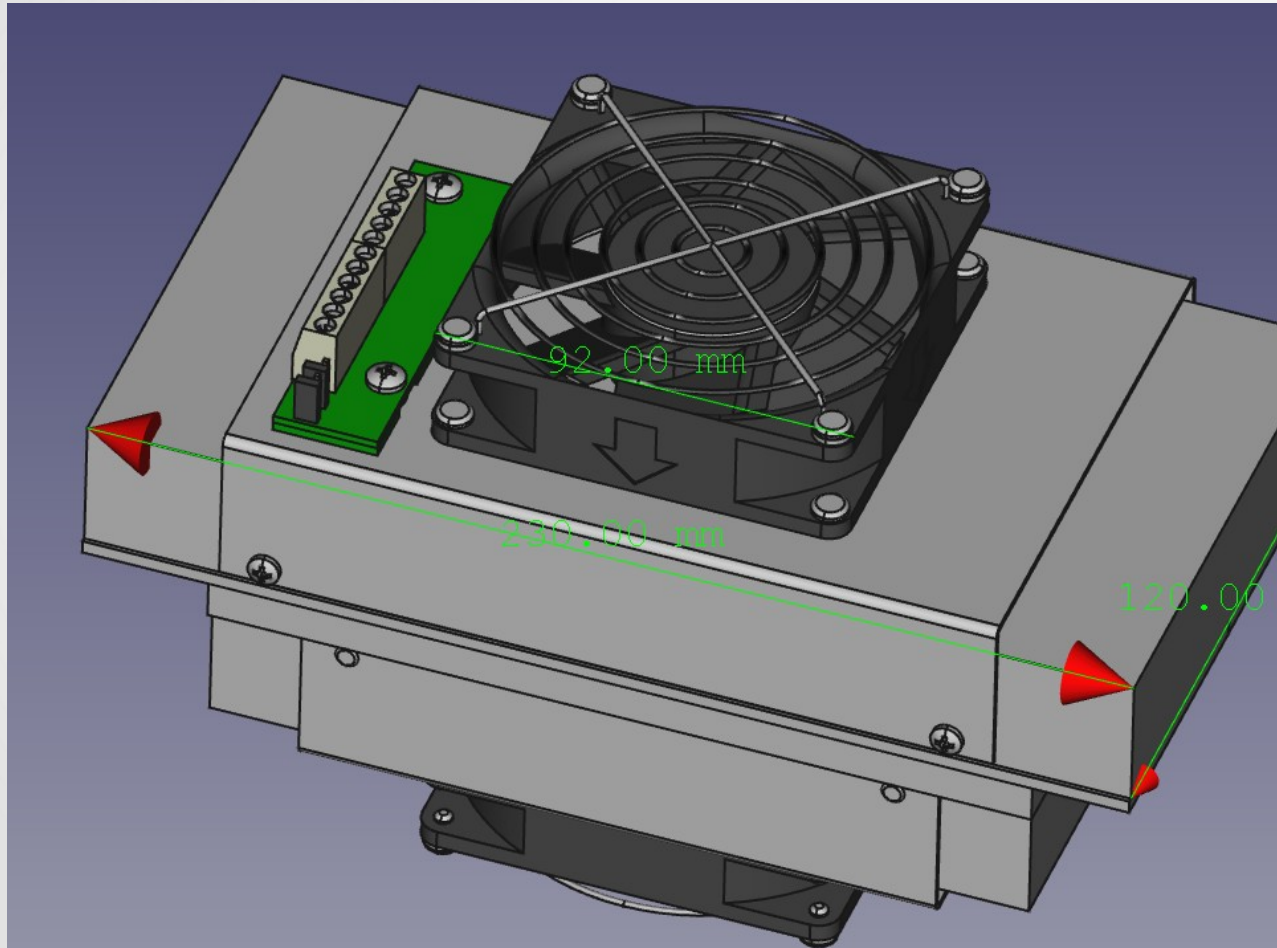


Fully instrumented:  
-8 units ( $52 \times 52 \text{ mm}^2$  each)  
-central space for Aerogel

Starting with 6 units



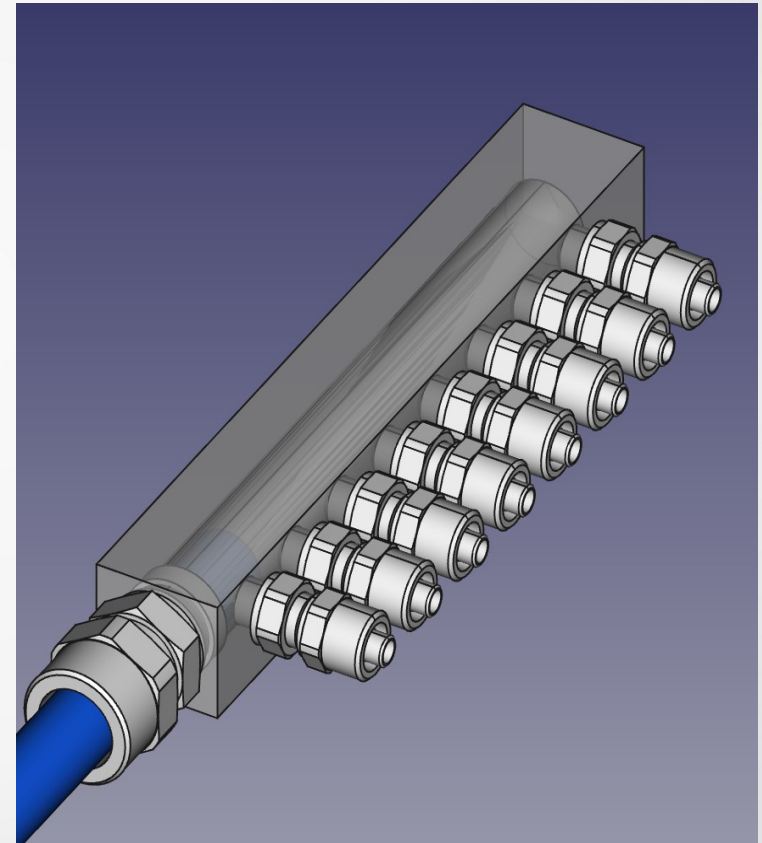
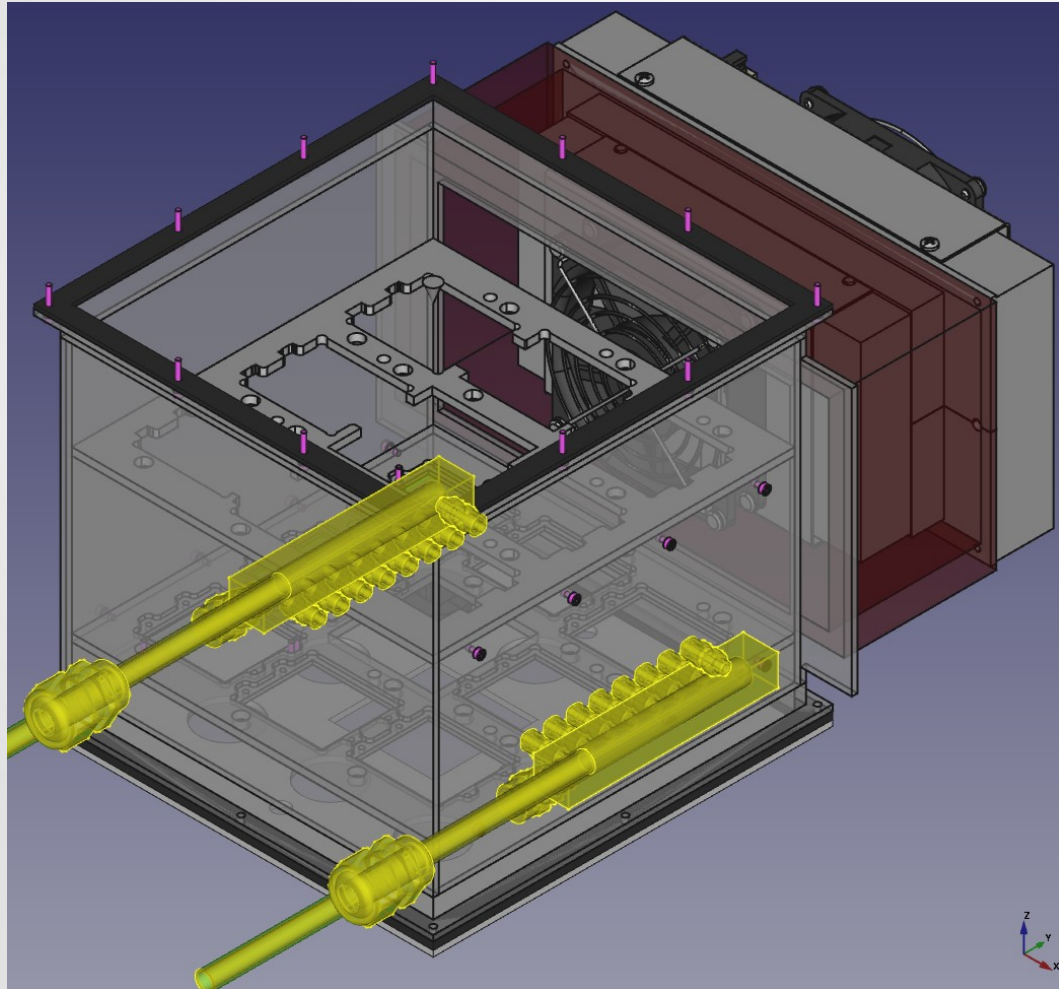
## Air cooling: Laird AA-060-12-22-00-00



Input: 12V / 6.2A (74W)  
Thermal: **58 W**  
Weight: 2.5 kg

Mouser 739-AA-060-12-220000

## Water manifold (custom): 1 supply + 1 return



# Readout units developed/built by Bologna

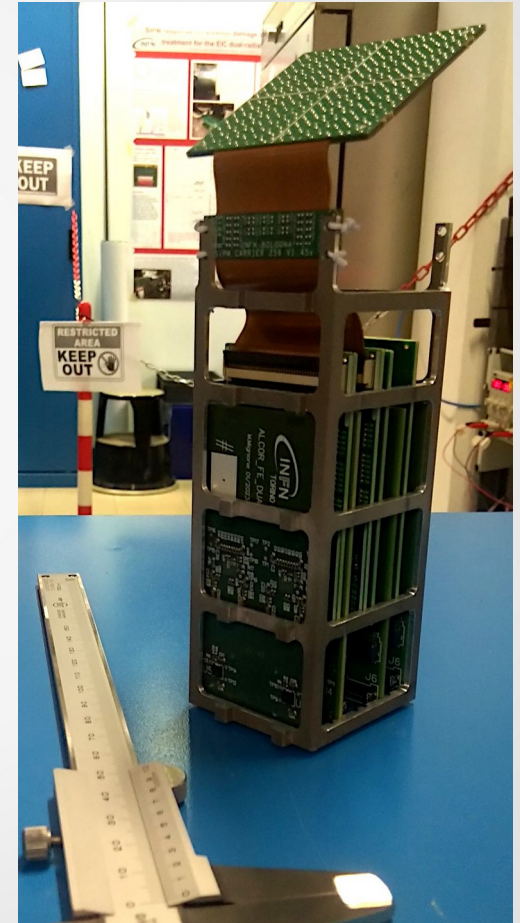
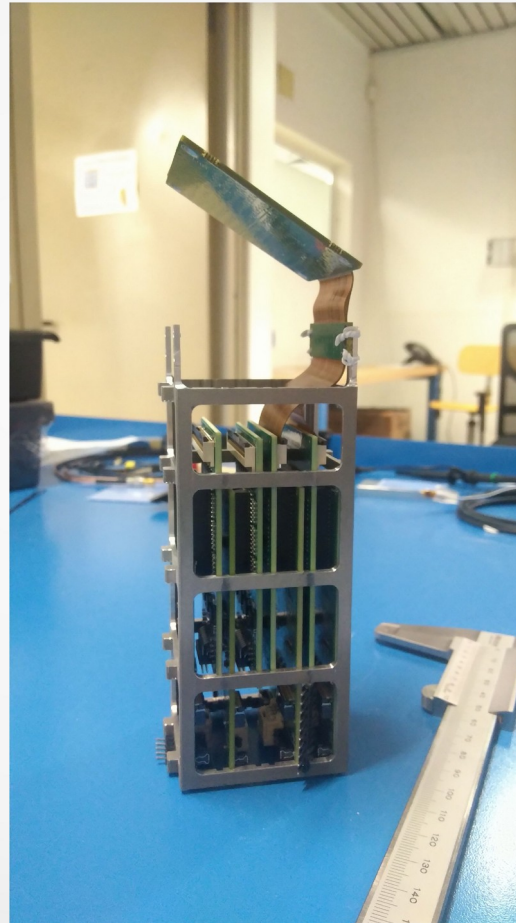
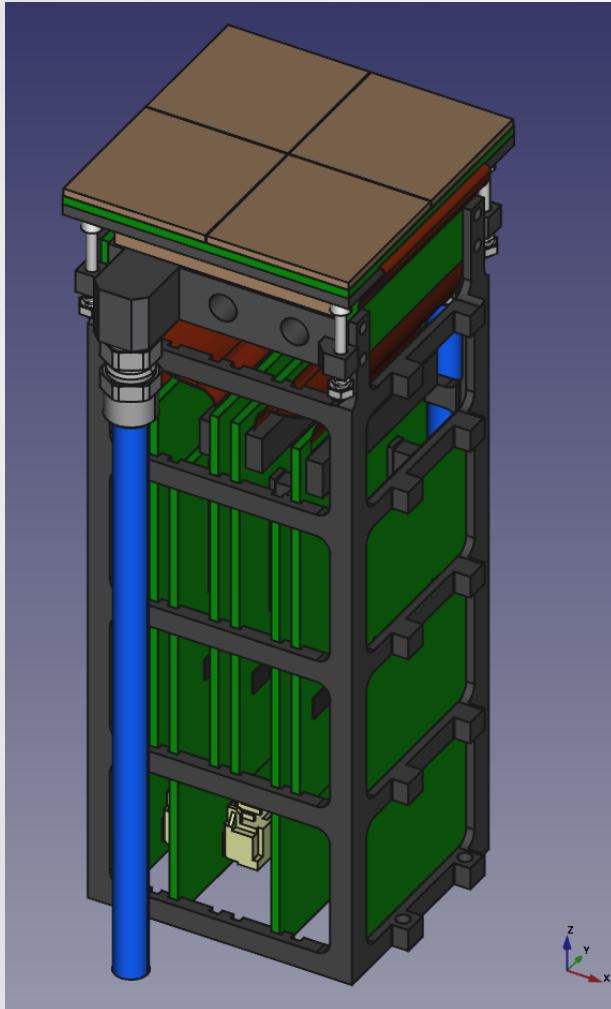
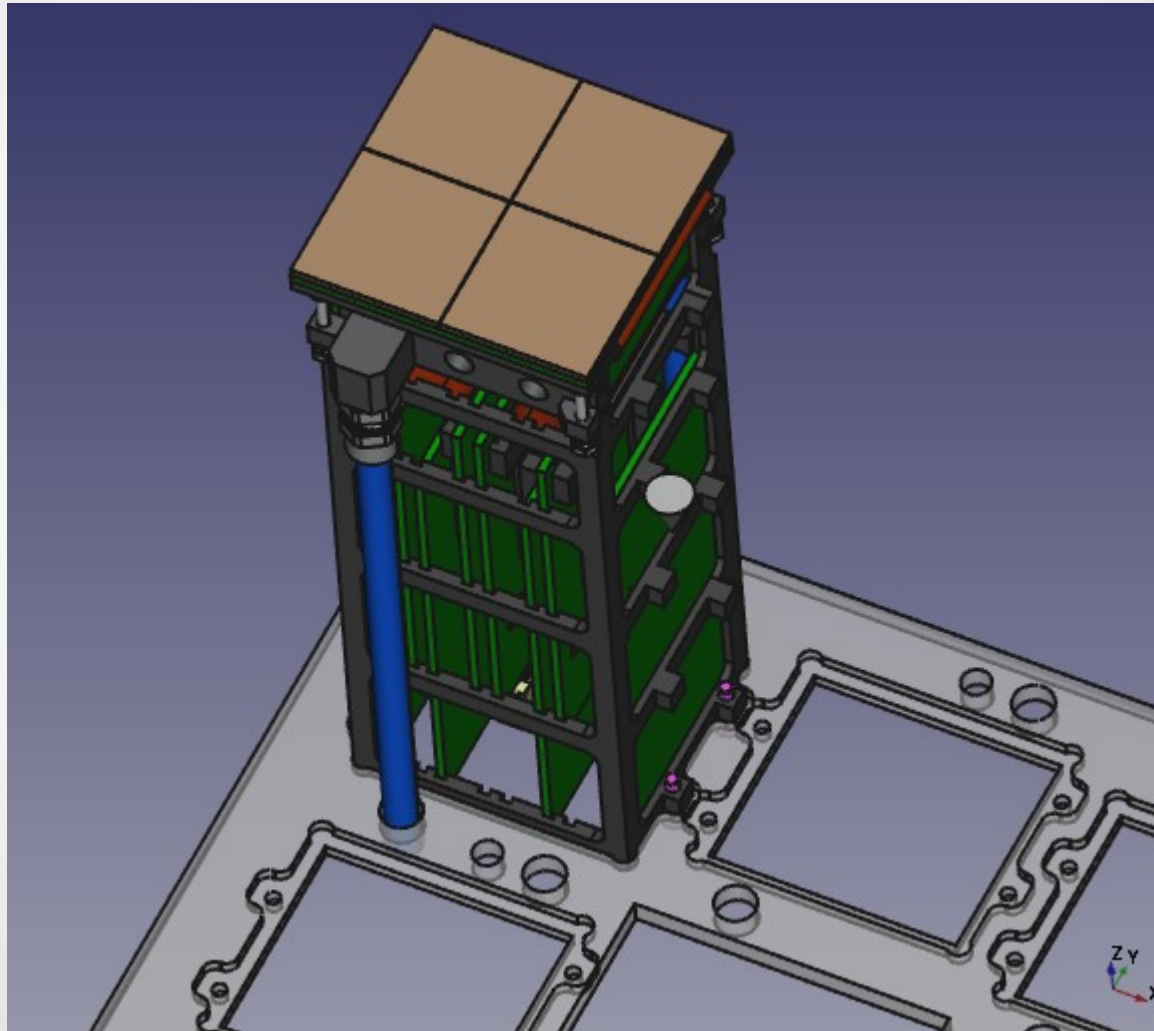


Photo courtesy of Roberto Preghenella

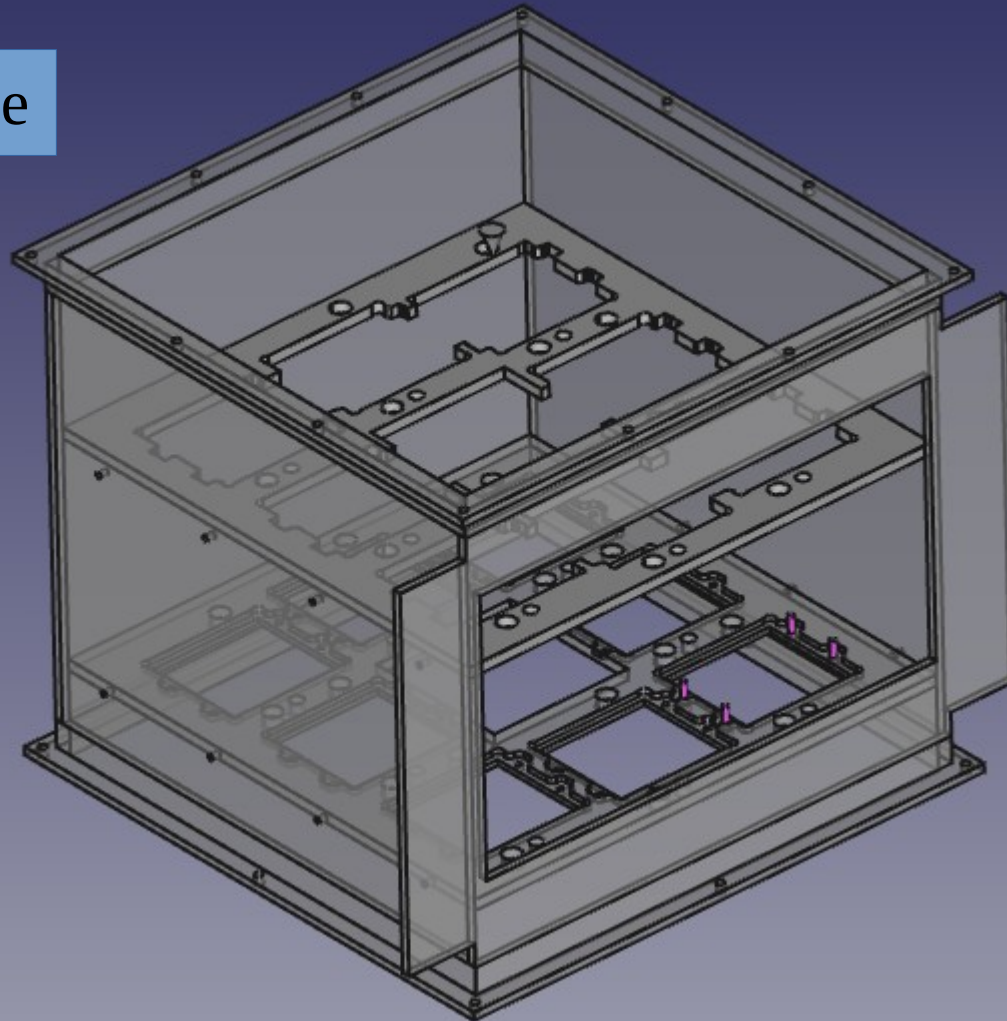


# Aluminum support plate

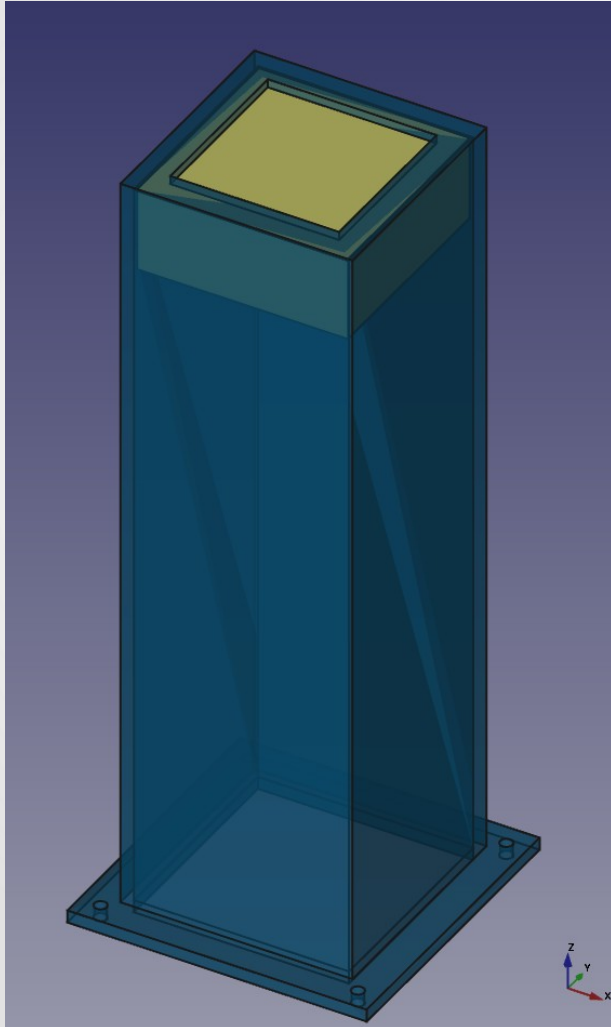


# Aluminum box (from welded plates)

~ 200 mm cube



# Plastic Aerogel holder



- 3D printed in black ASA (FDM)
- Fast exchange (removable form back)
- Holds up to 50x50 mm<sup>2</sup> tiles

