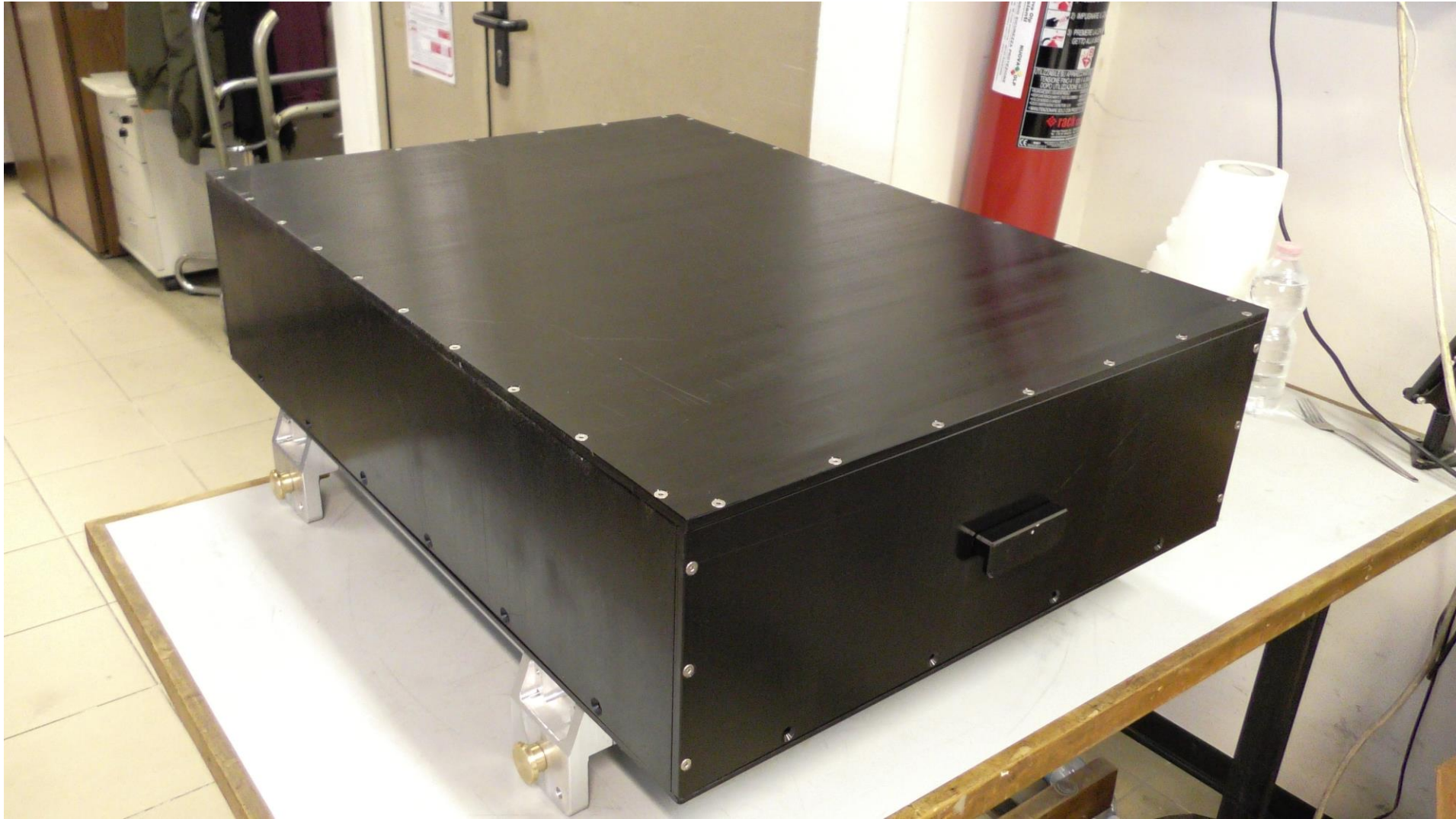


POLAR QUEST 2018

Cosmic Rays Detector

ASSEMBLY OF MECHANICAL PARTS

Our cosmic rays detector

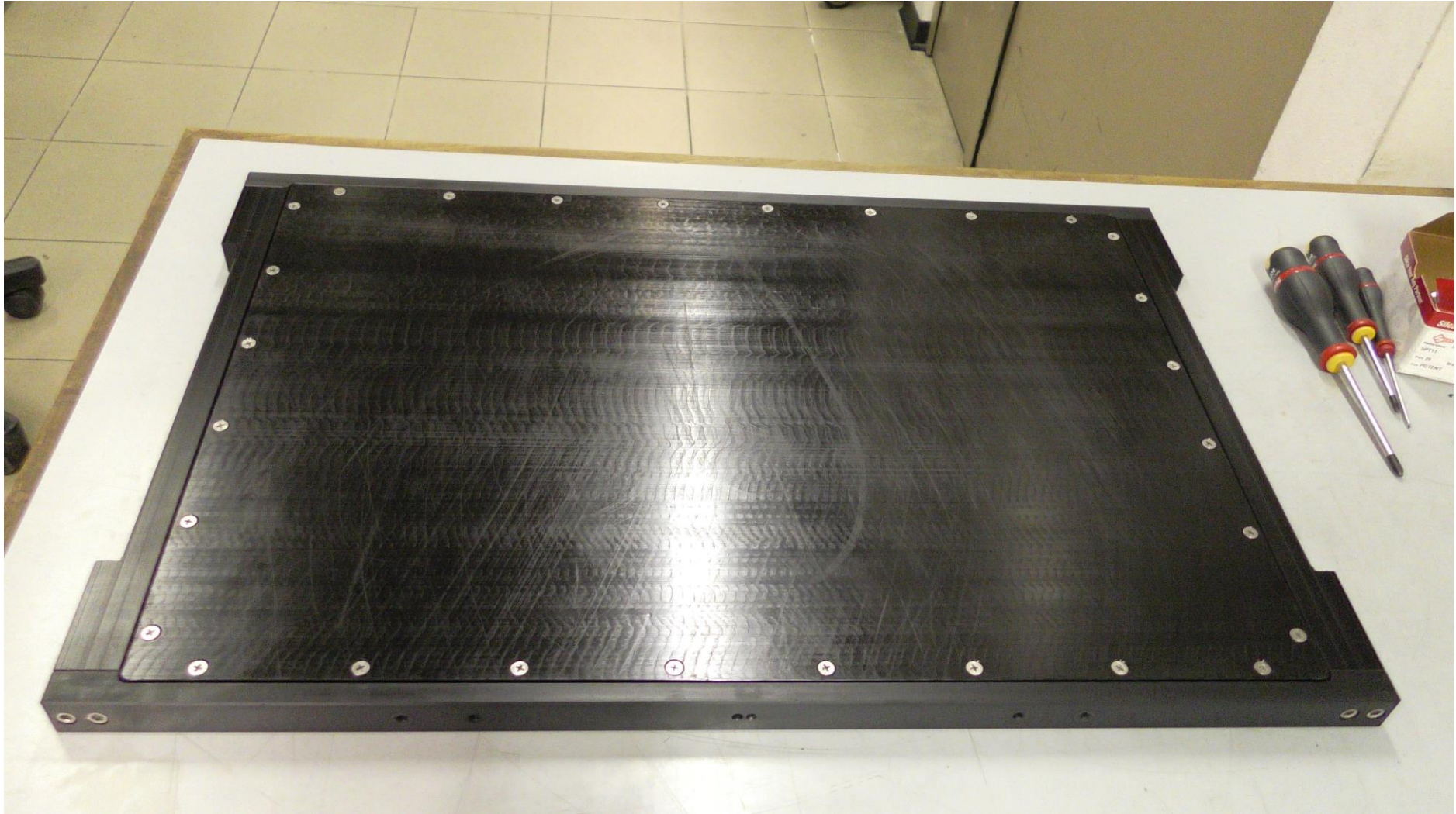


General rules for assembly

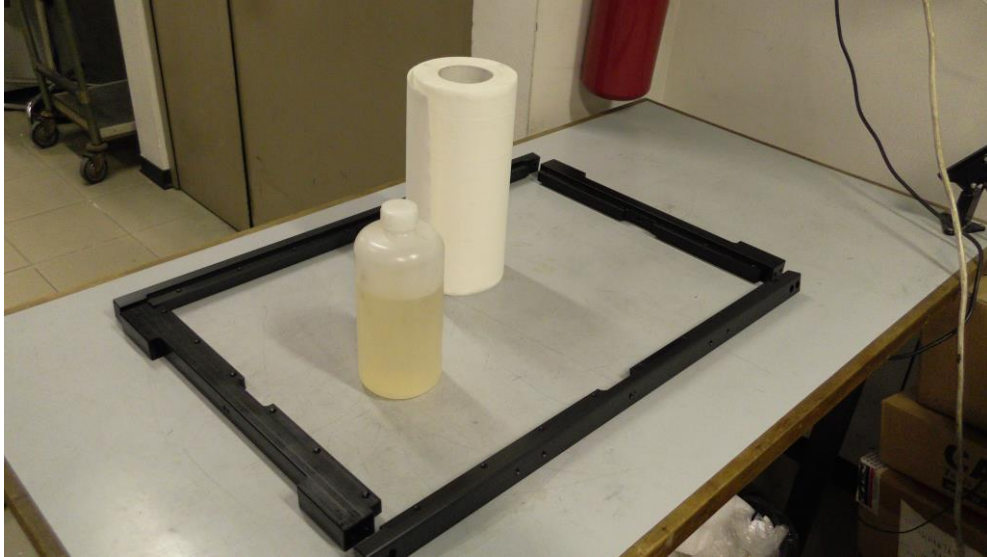
- Prepare the parts to be assembled
- Clean each part made of plastic or metal
- Prepare the necessary screws and keys to fix them
- Pay attention if the parts have a mounting direction

Note: The assembly of some electrical parts takes place during the assembly of mechanical parts.

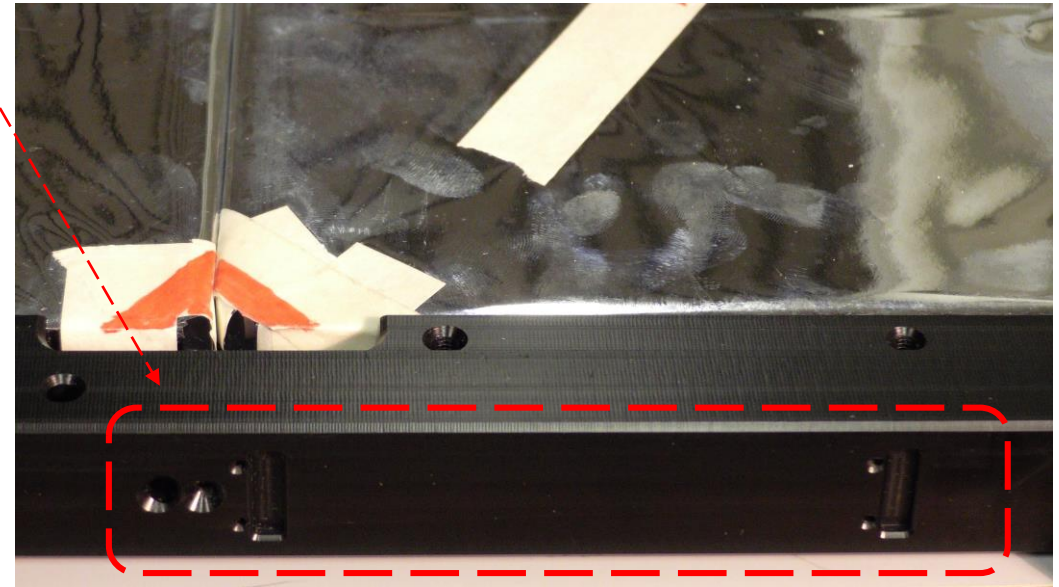
1 - Assembly the plane containing the scintillators



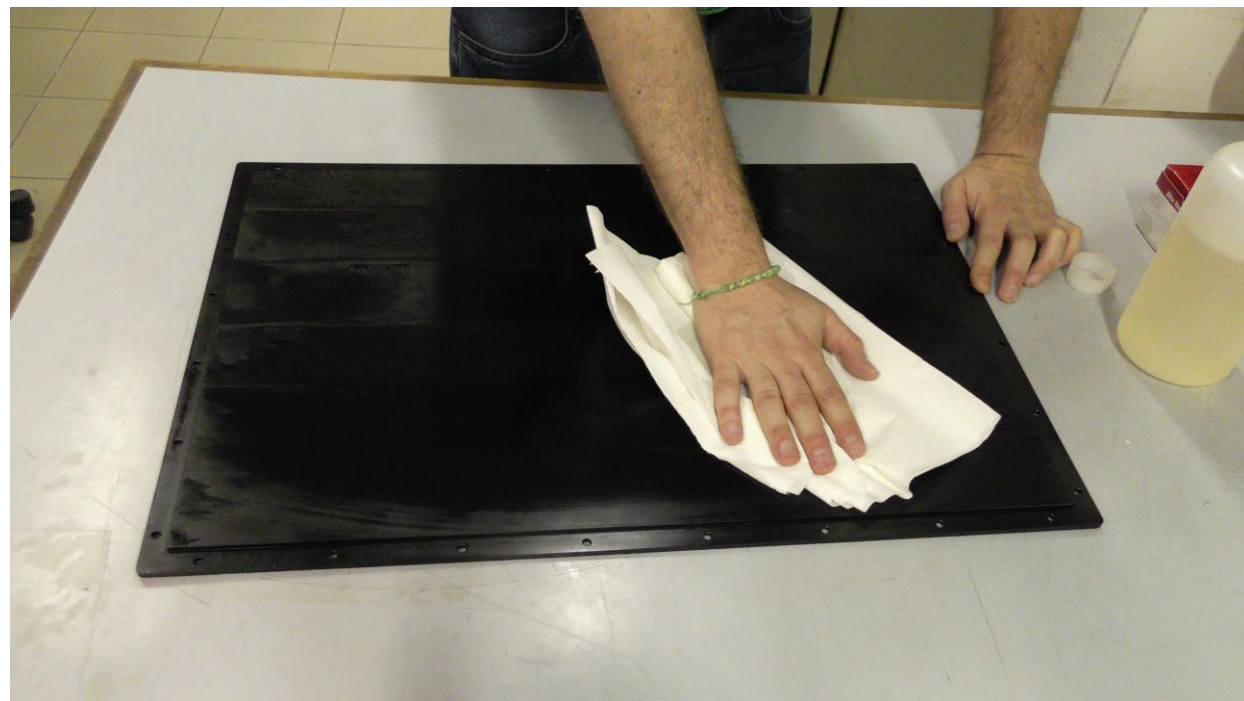
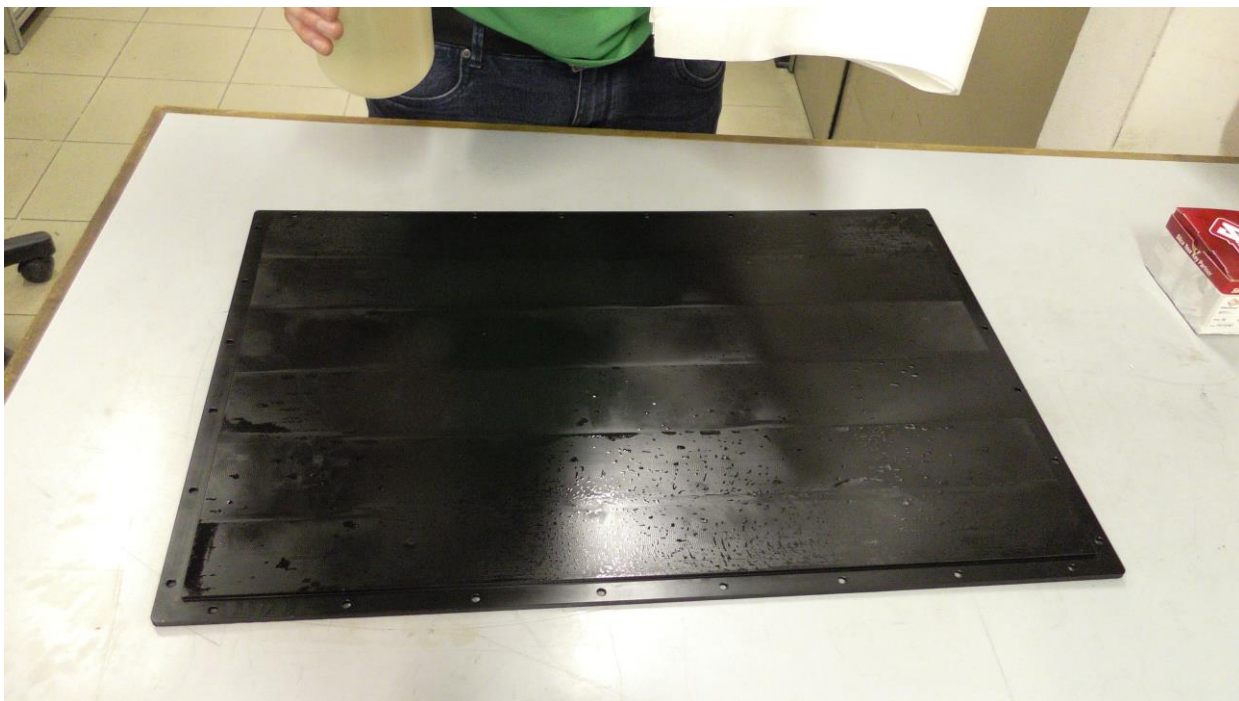
1.1 - Prepare and clean the frames



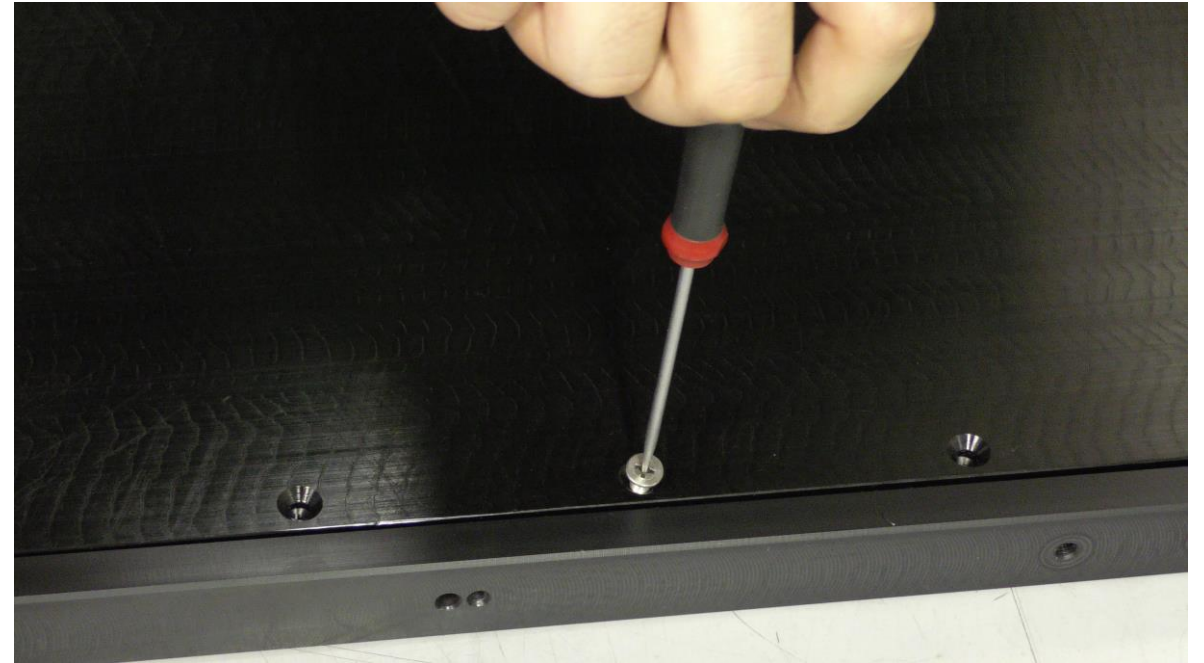
1.2 - Assembly the frames

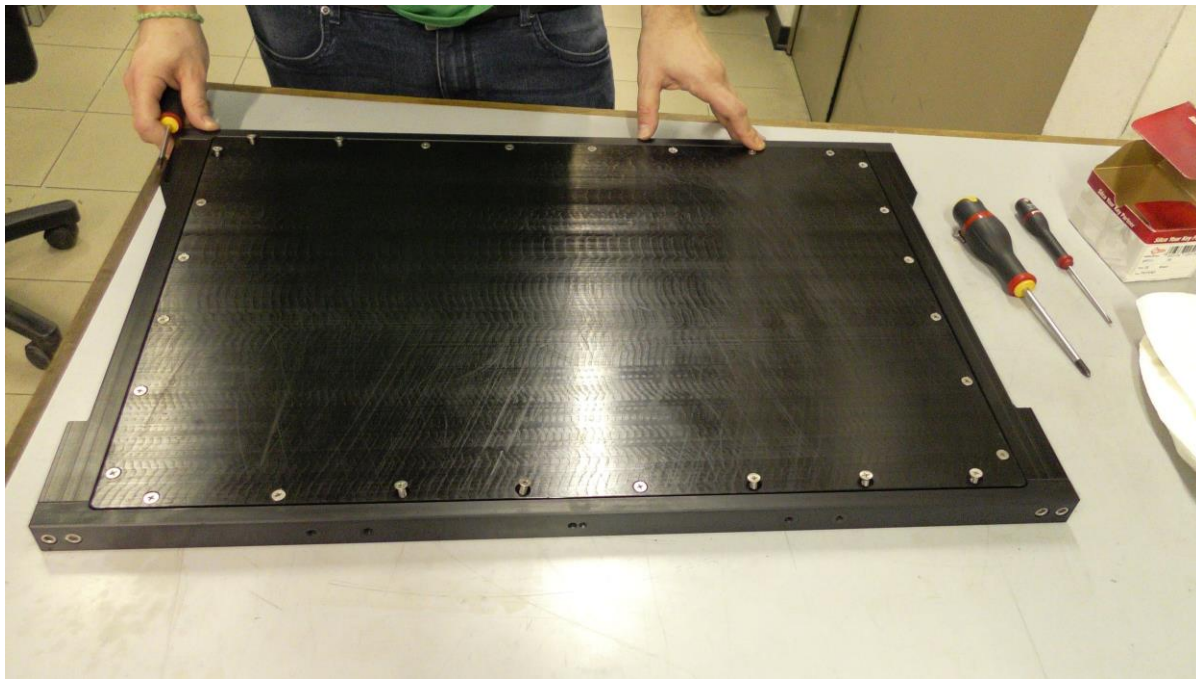


1.3 - Prepare and clean the bottom lid



1.4 - Assembly frame and bottom lid

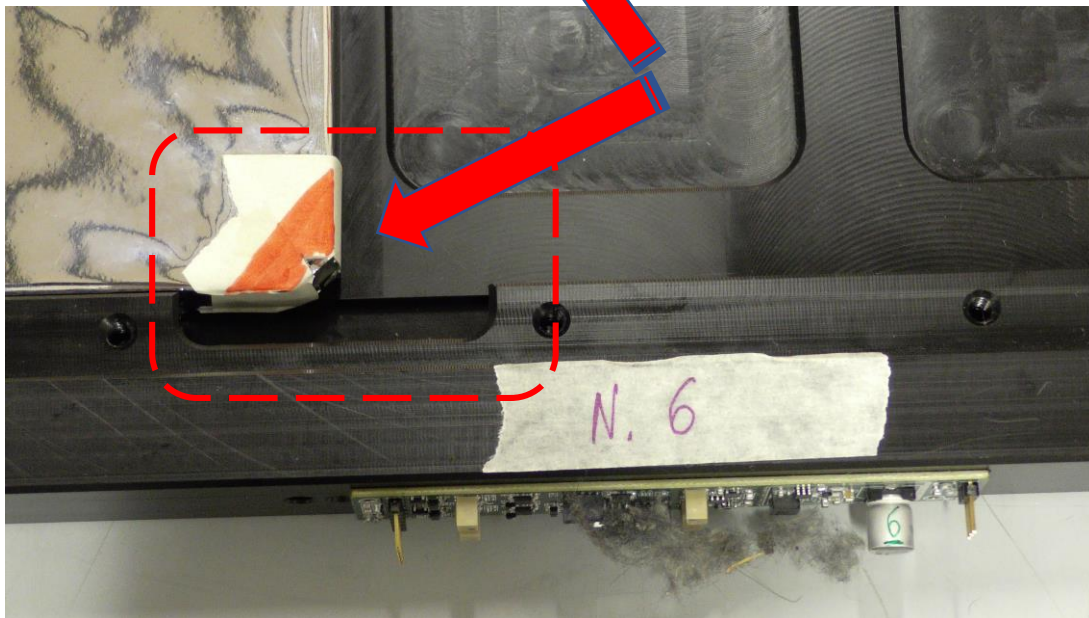
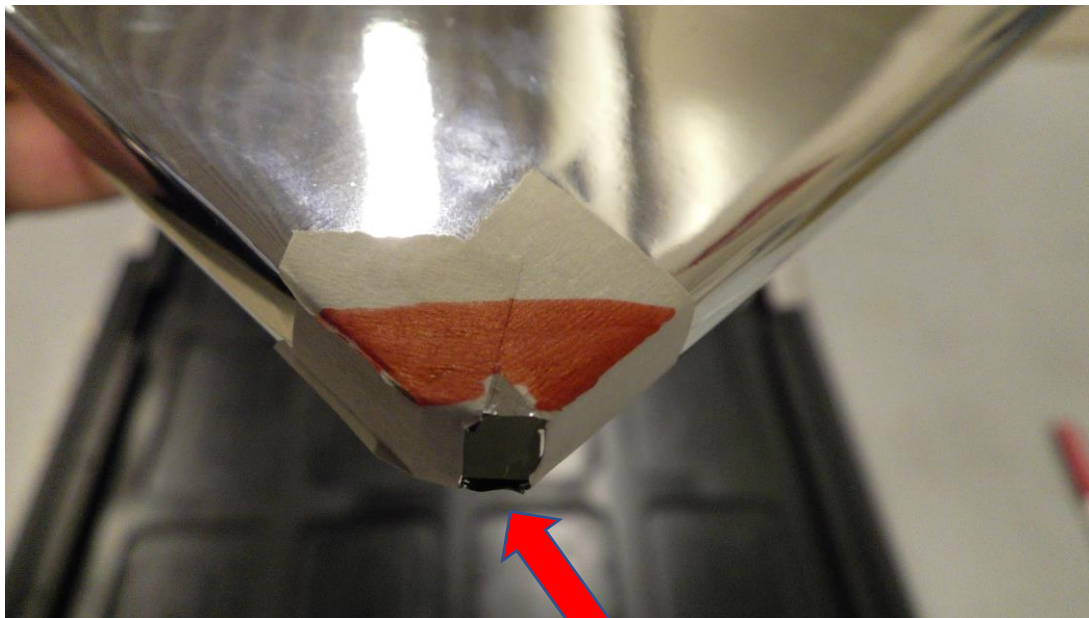




... fix all the screws around the perimeter

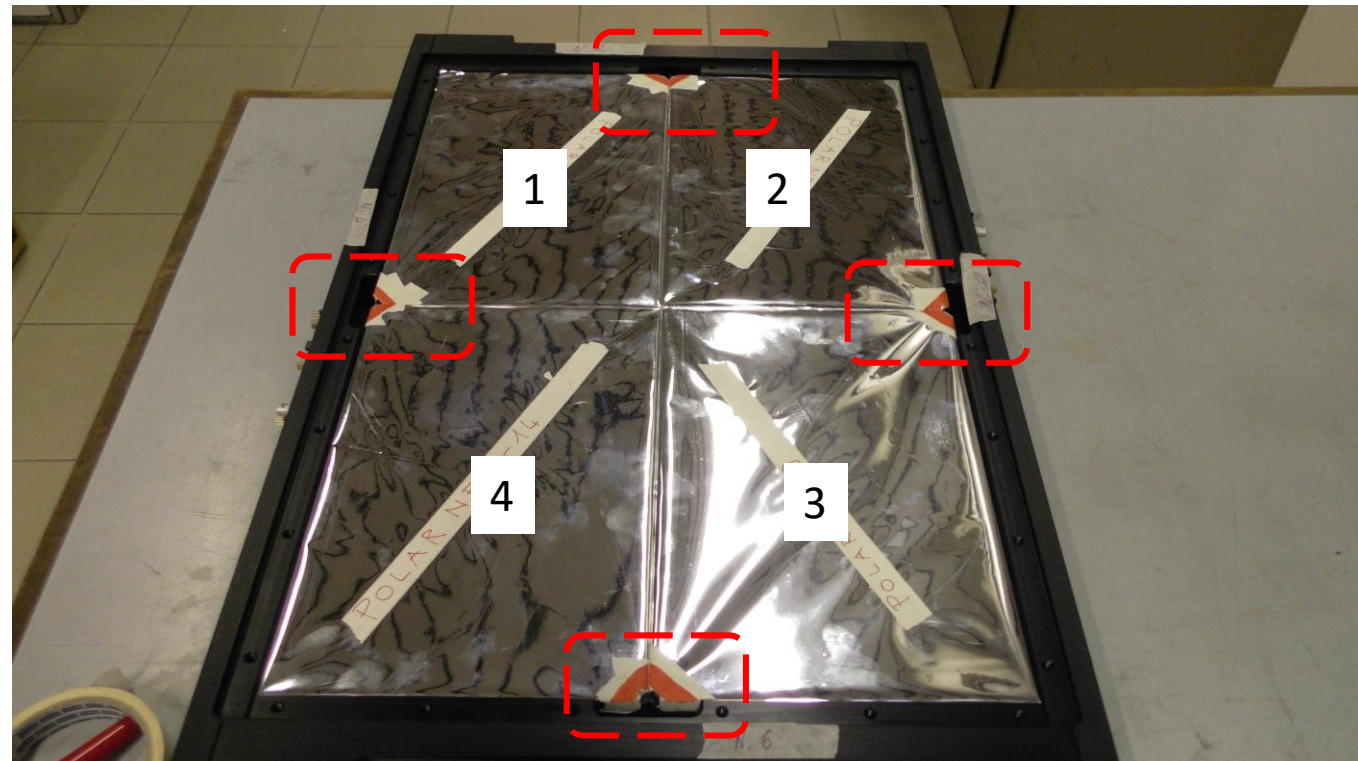
... and turn over the plane





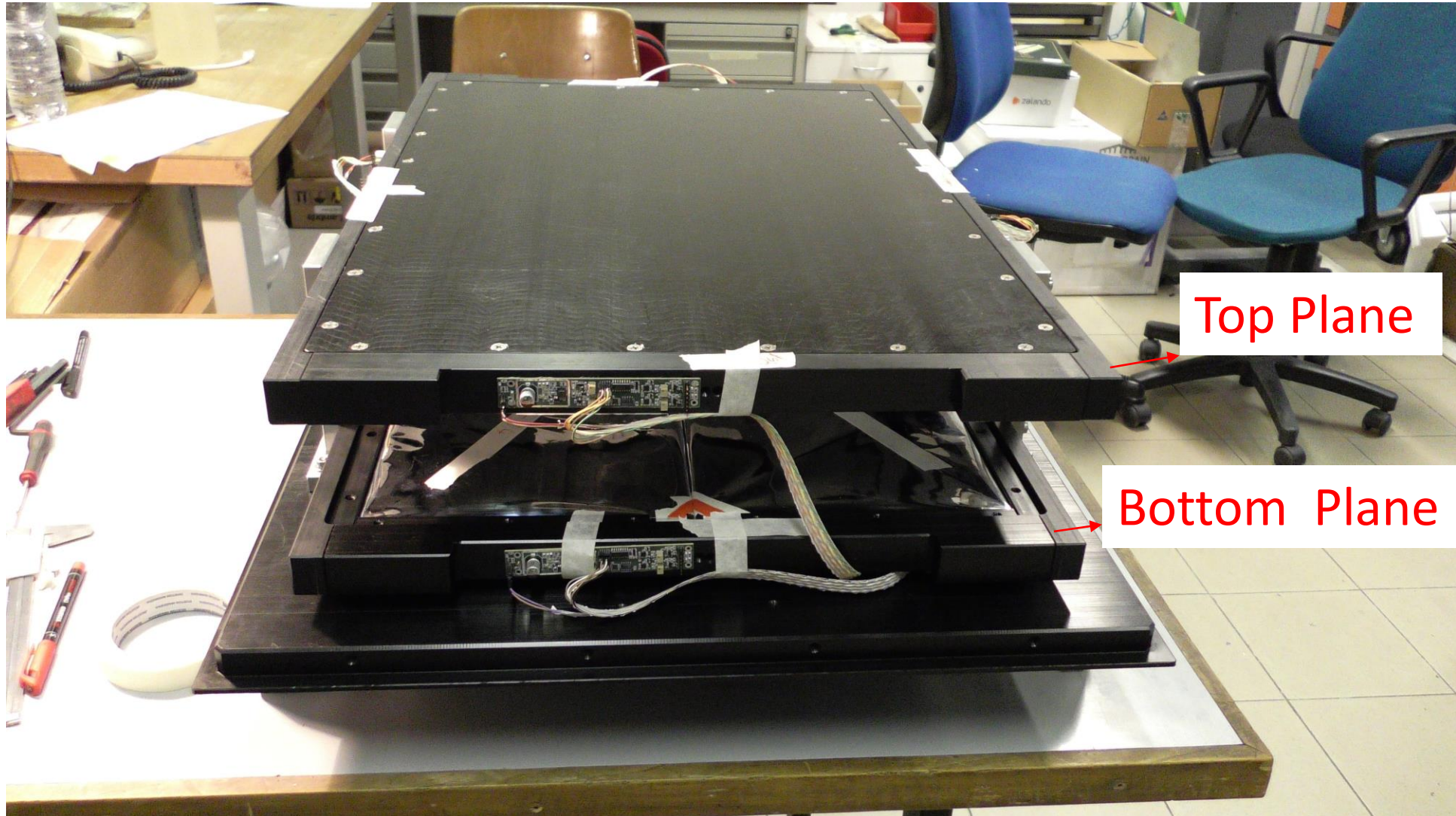
.... Now insert the four scintillators

- pay attention to the right position !!!
(See the **red corner**)

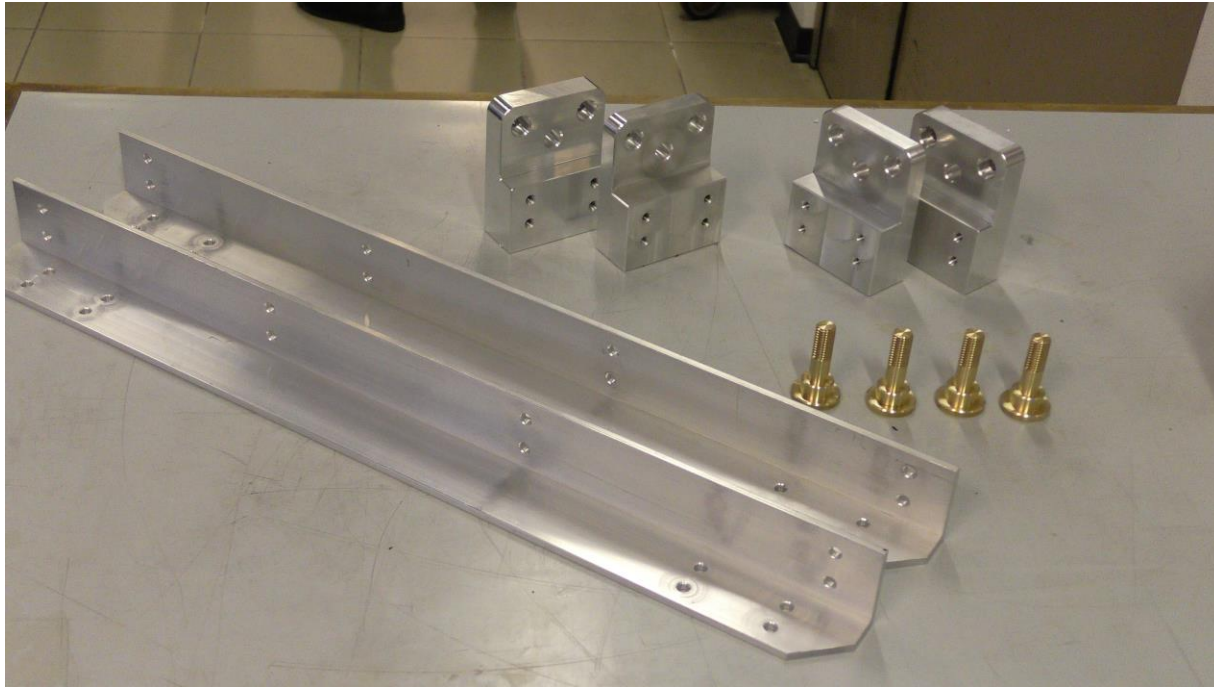


Before fixing the top lid mount the SIPMs inside

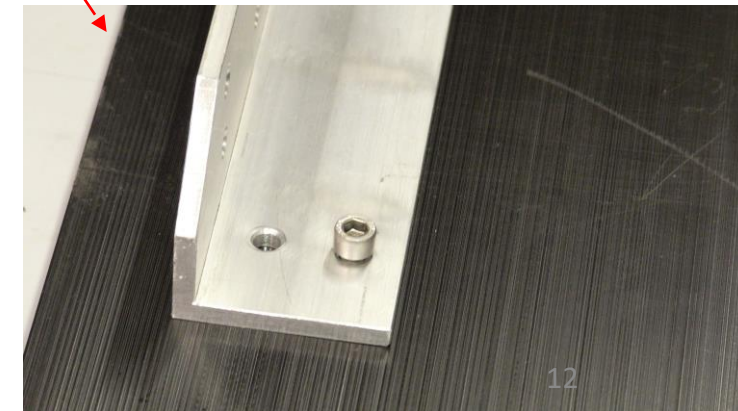
- Repeat the previous assembly also for the Top Plane

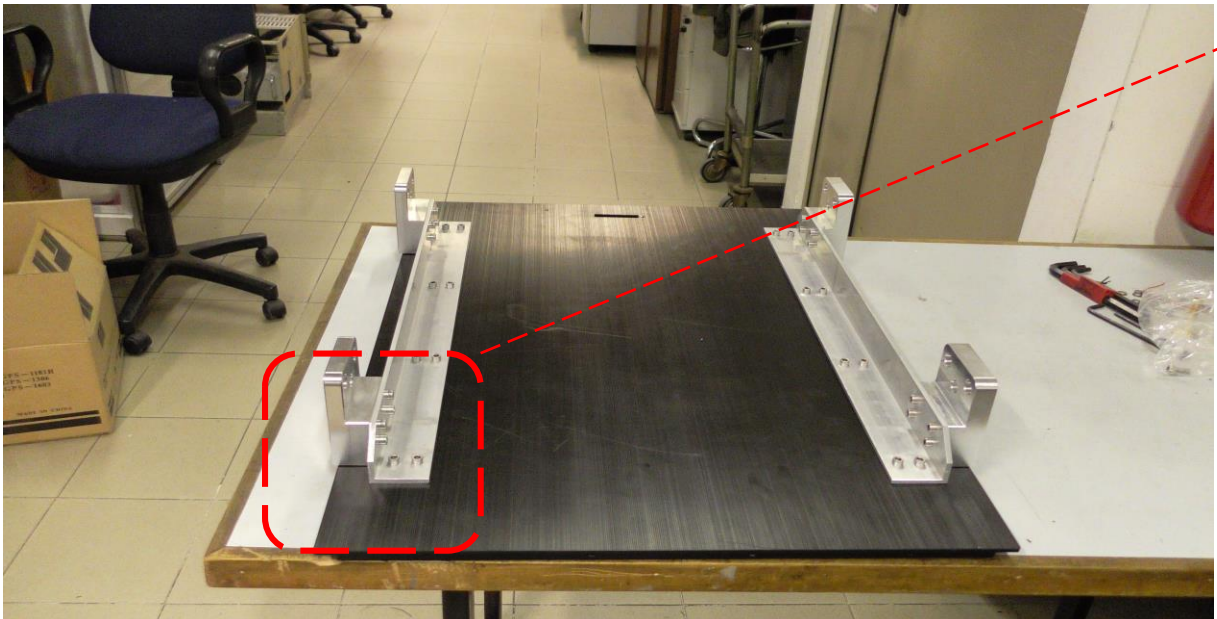
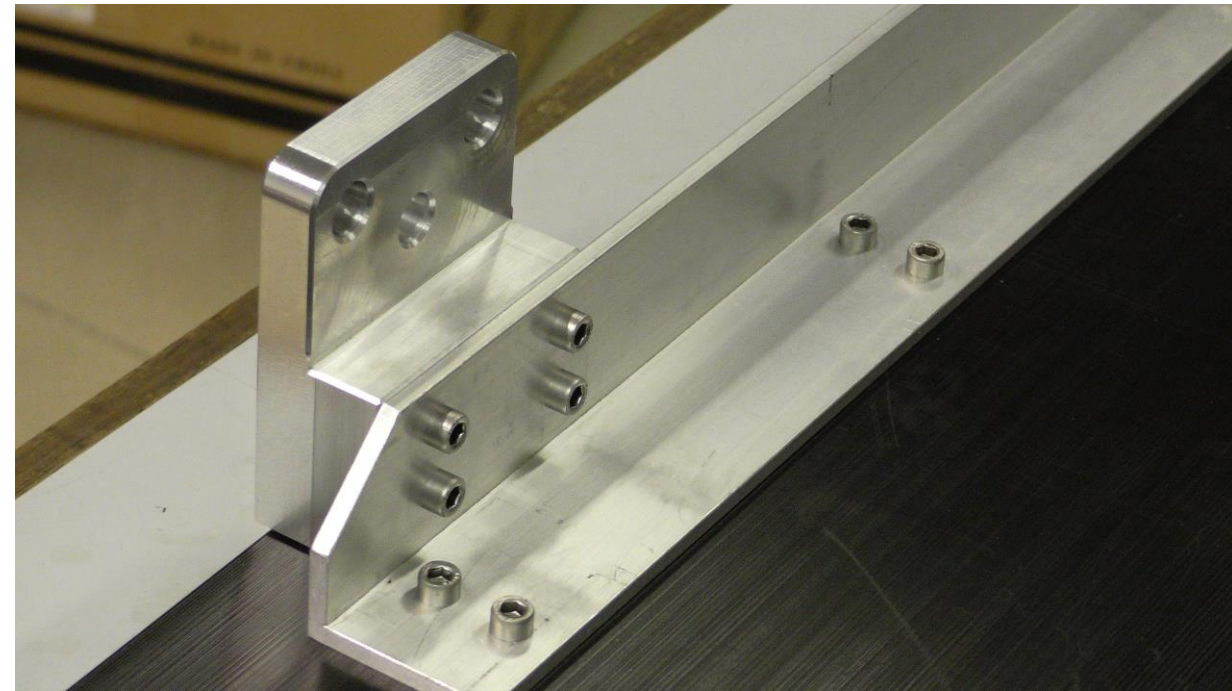
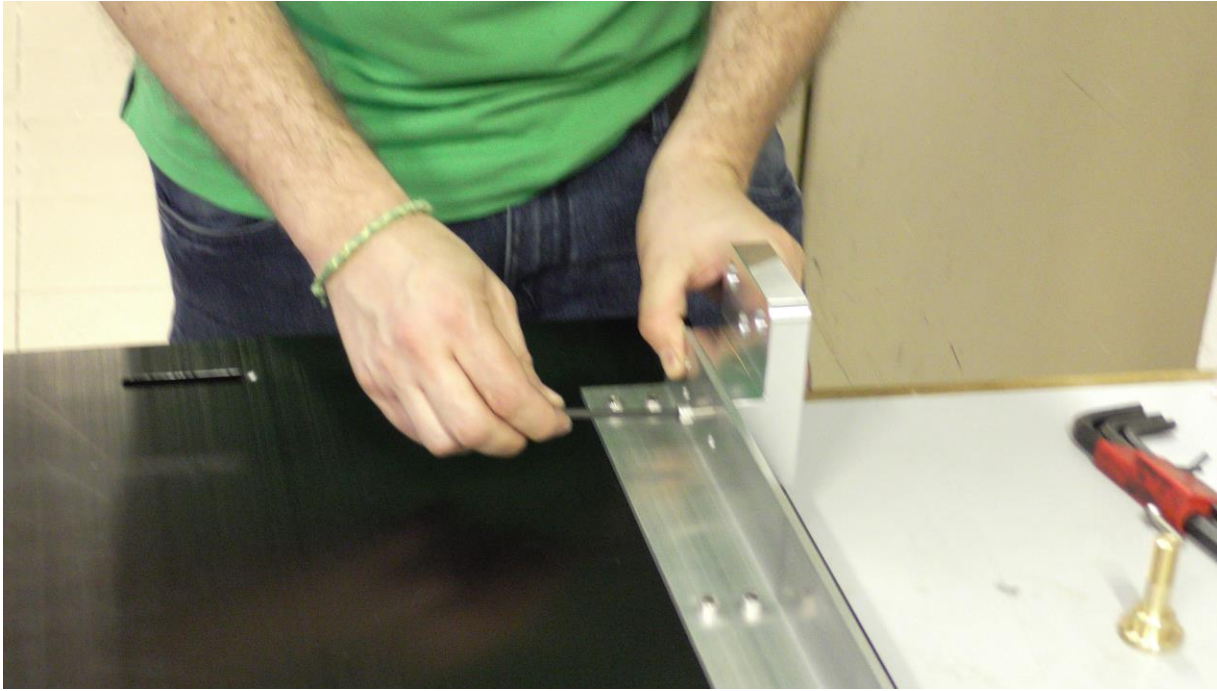


2 - Assembly of the Base Plan (bottom/top side)



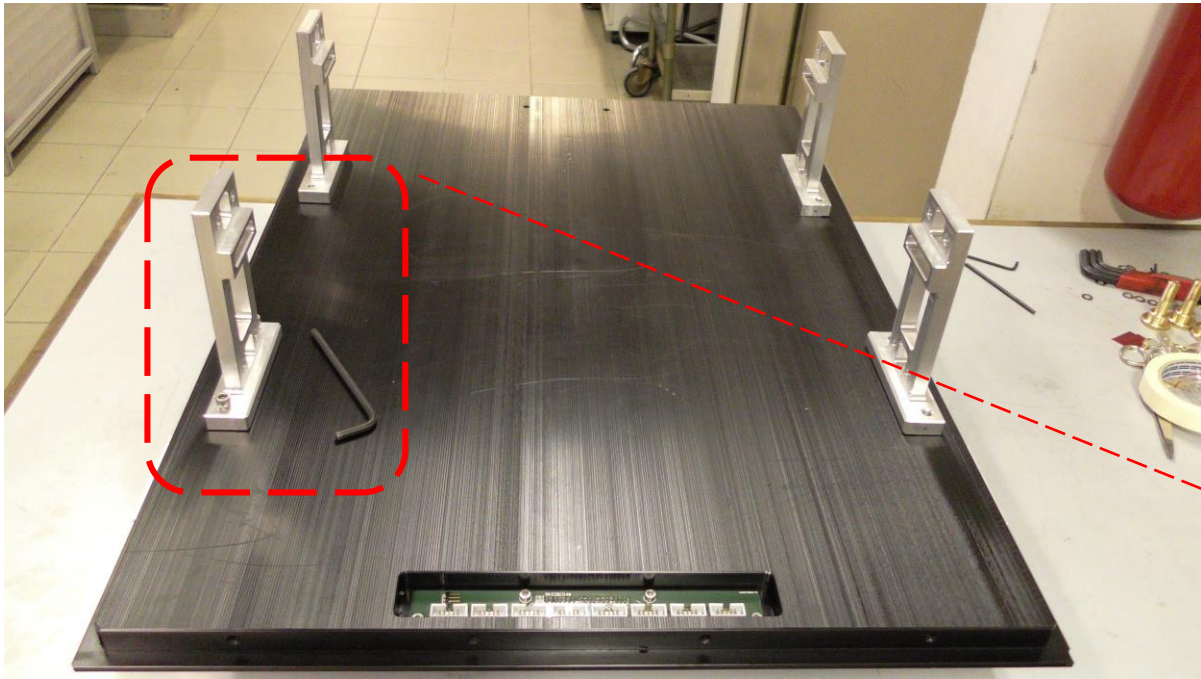
Bottom Side



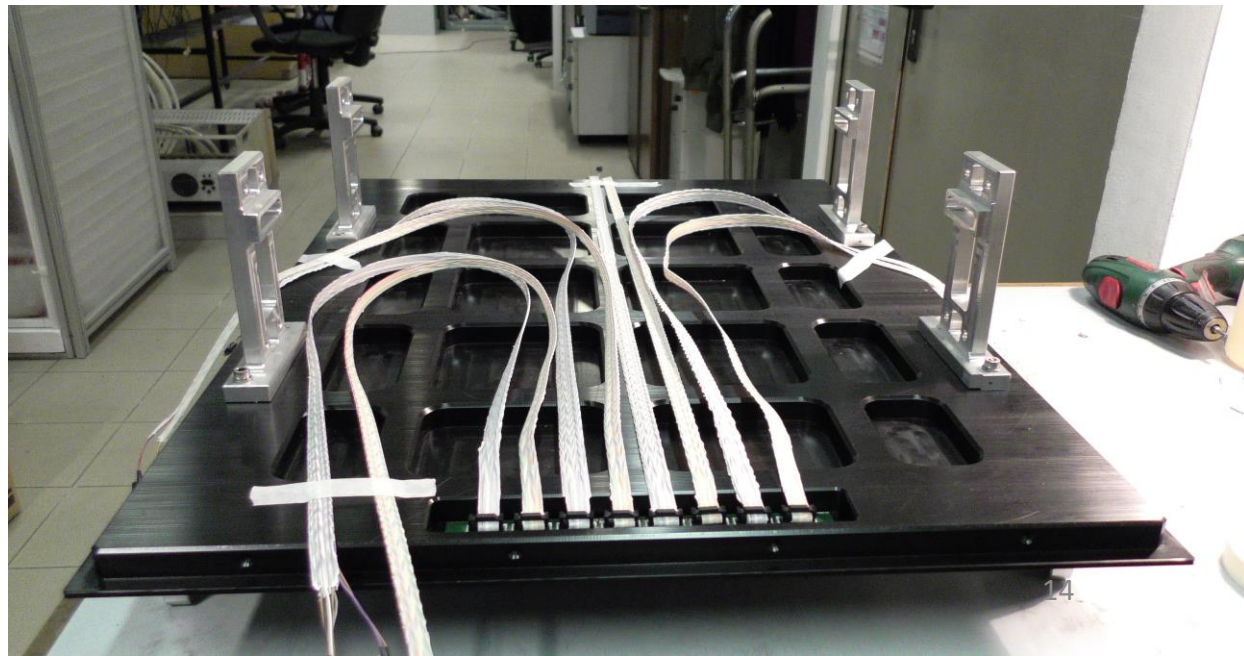


Bottom Side

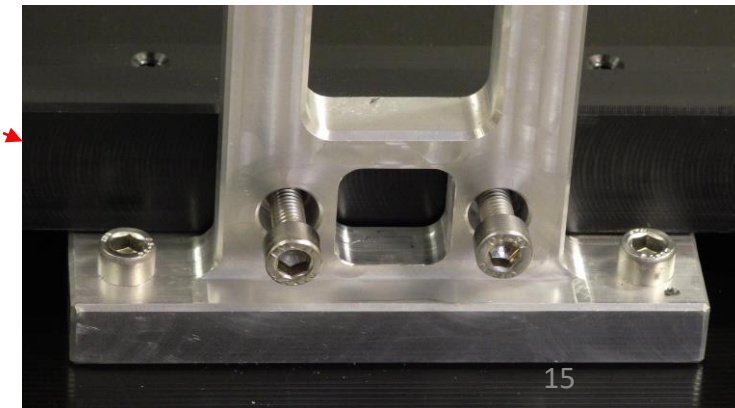
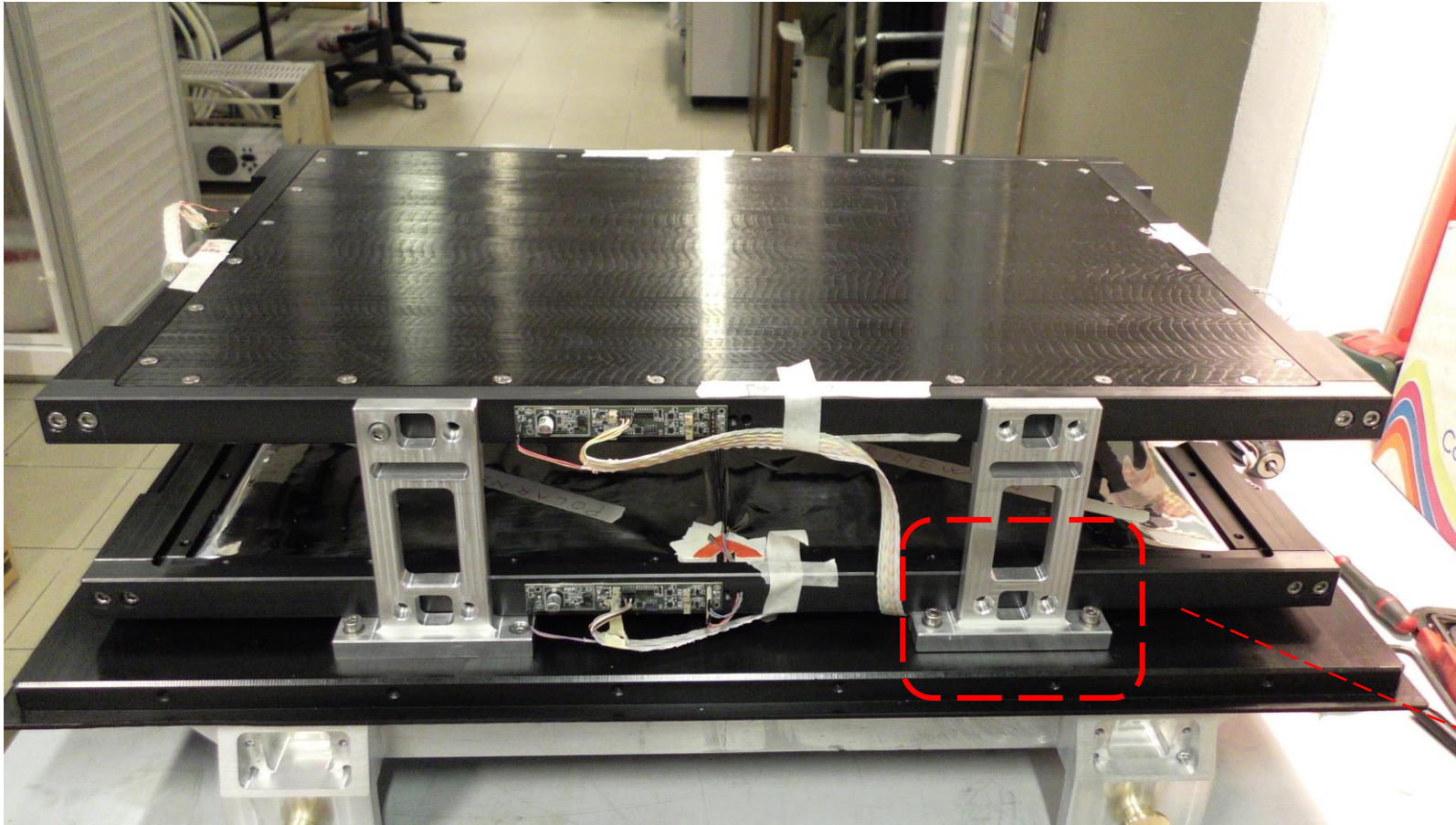
... turn over the plane to assemble
the Top Side



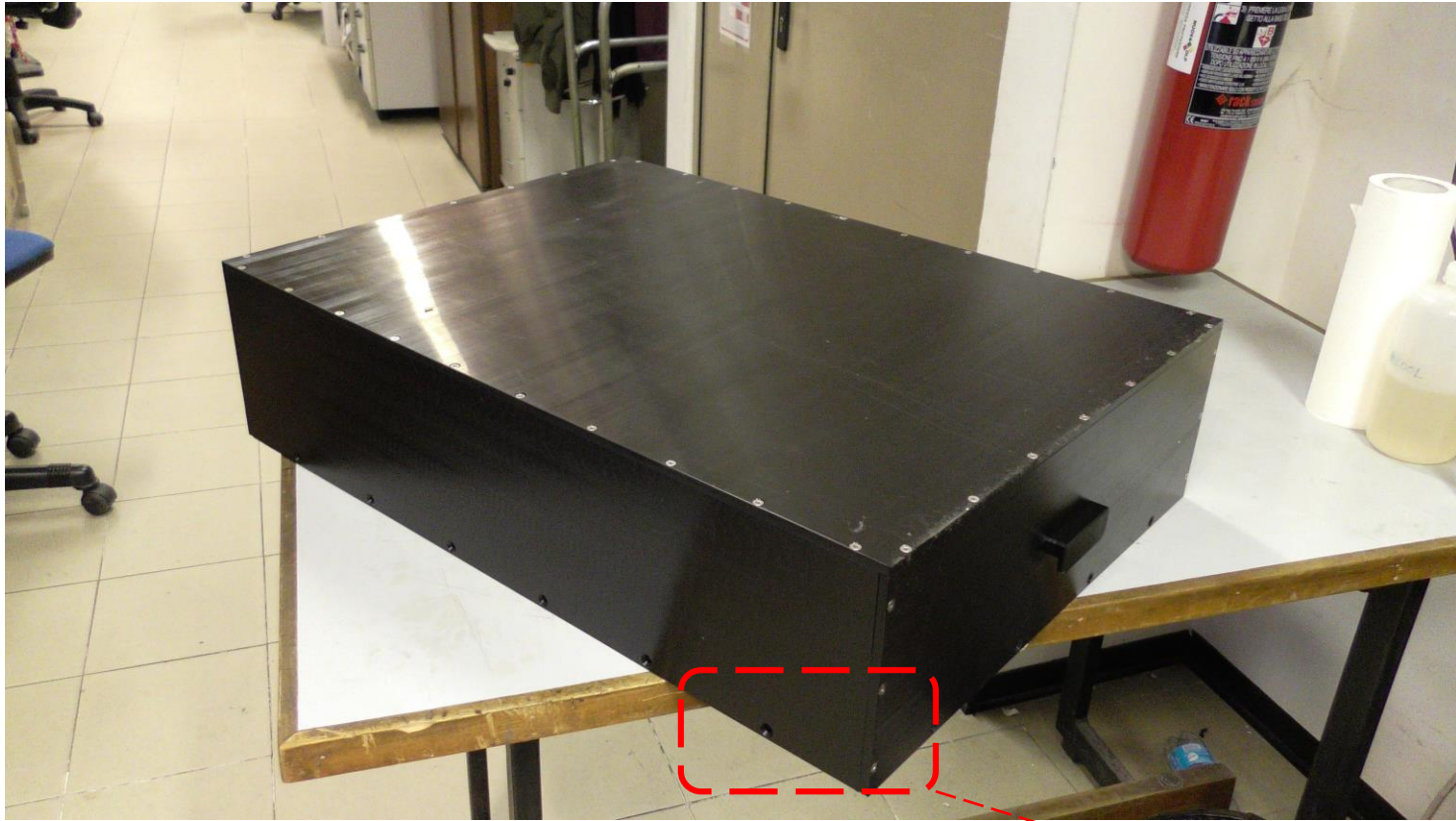
Top Side



... the mechanical structure is ready to fix the two planes



- The cover is already assembled to be fixed above the detector



... fix all the screws around the perimeter

