

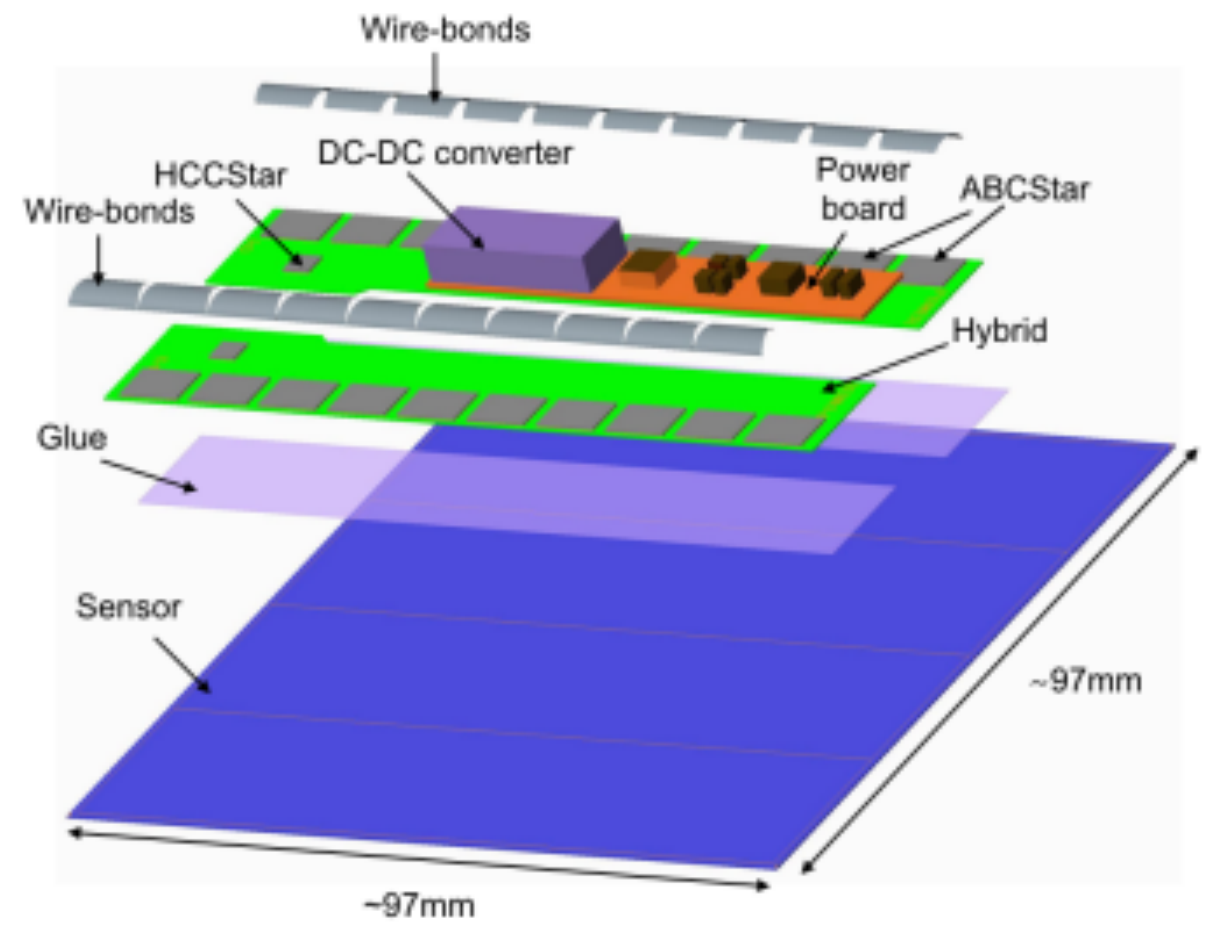
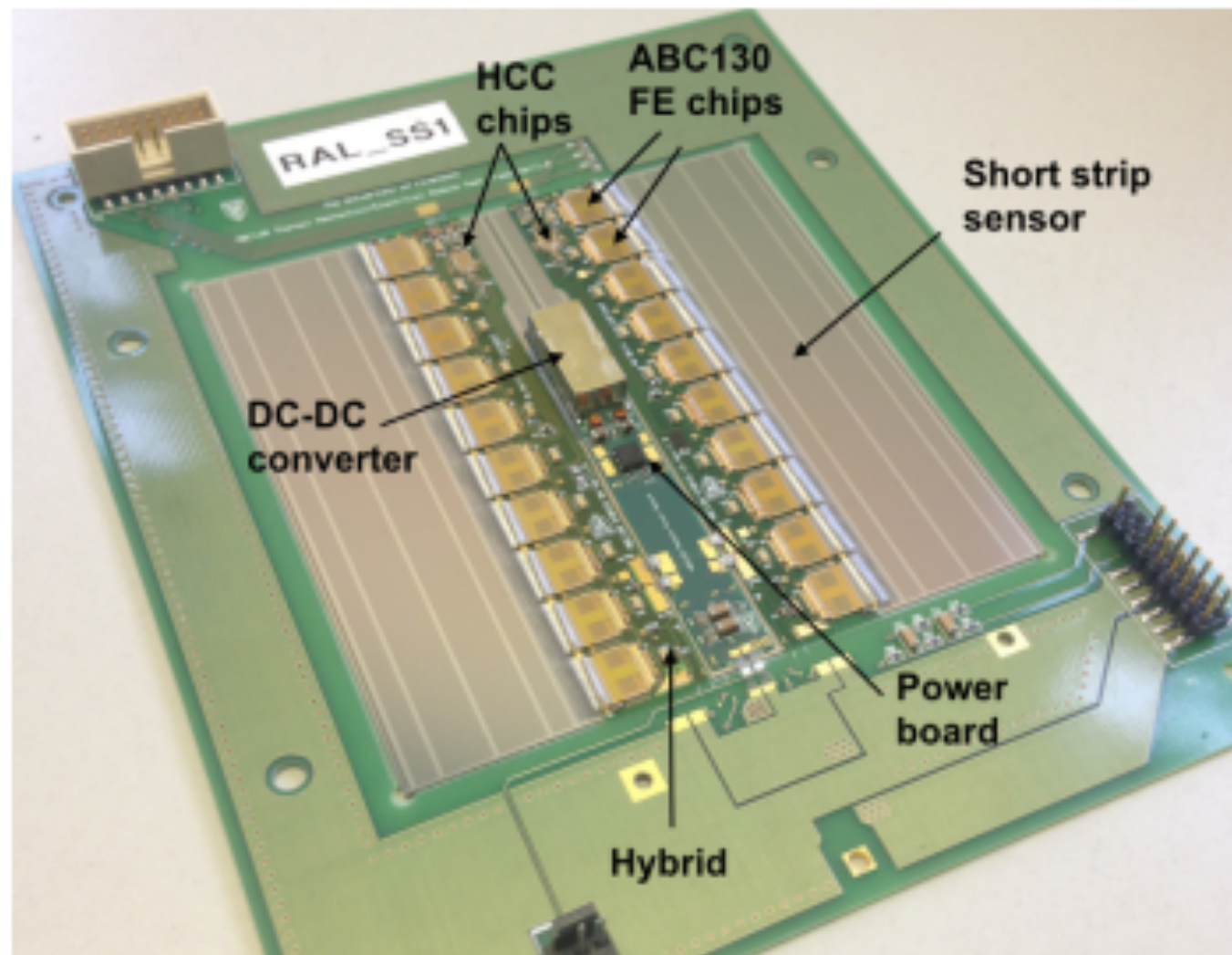
Strips modules assembly status

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Phathakone Sanethavong, Luise Poley, Maosen Zhou

6/15/2018



Reminder



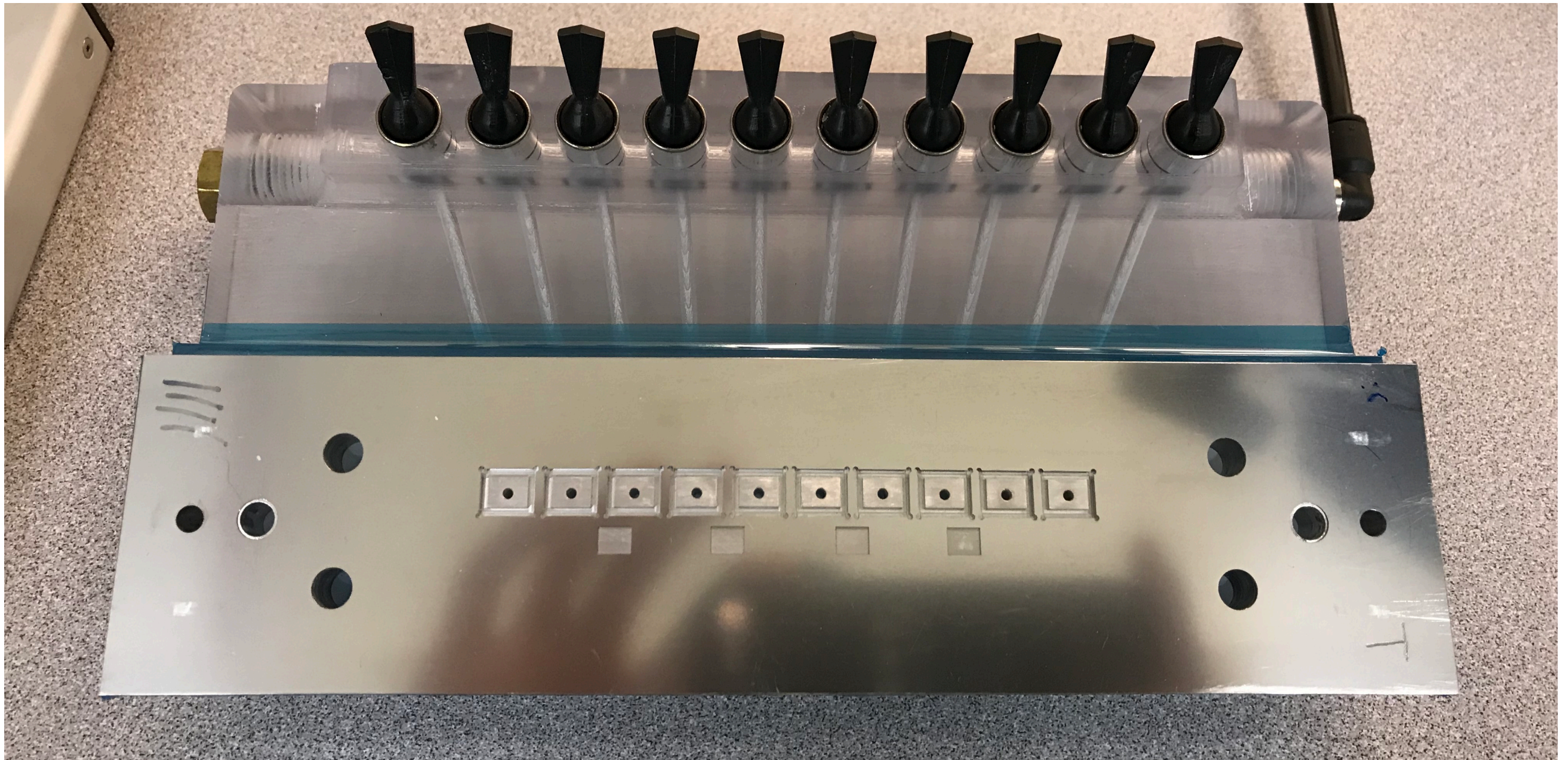
Overview

- Modules consist of new PB and v2 hybrids start from EL-03;
- 10 modules assembled, EL-02 and EL-03 have EBD;
- 5 modules with PB, and EL-07~EL-10 ready for PB;
- 2 sent to BNL for stave, one to Stony Brook for test stand setup.

Module ID	IV bare sensor	1st hybrid mounted	2nd hybrid mounted	Hybrids bonded	IV w/o PB	Electrical test w/o PB	PB mounted and bonded	IV w/ PB	Electrical test w/ PB	Shipped	Location	Shipped date	Comment
LBL-EL-01											BNL	2018-3-6	
LBL-EL-02											Stony Brook	2018-6	Early break down
LBL-EL-03											LBL		Early break down
LBL-EL-04											BNL	2018-6	
LBL-EL-05											LBL		
LBL-EL-06											LBL		
LBL-EL-07											LBL		
LBL-EL-08											LBL		
LBL-EL-09											LBL		
LBL-EL-10											LBL		
LBL-EL-11											LBL		
LBL-EL-12											LBL		
LBL-EL-13											LBL		

Will be done with ABC130 ASICs modules

Chip tray

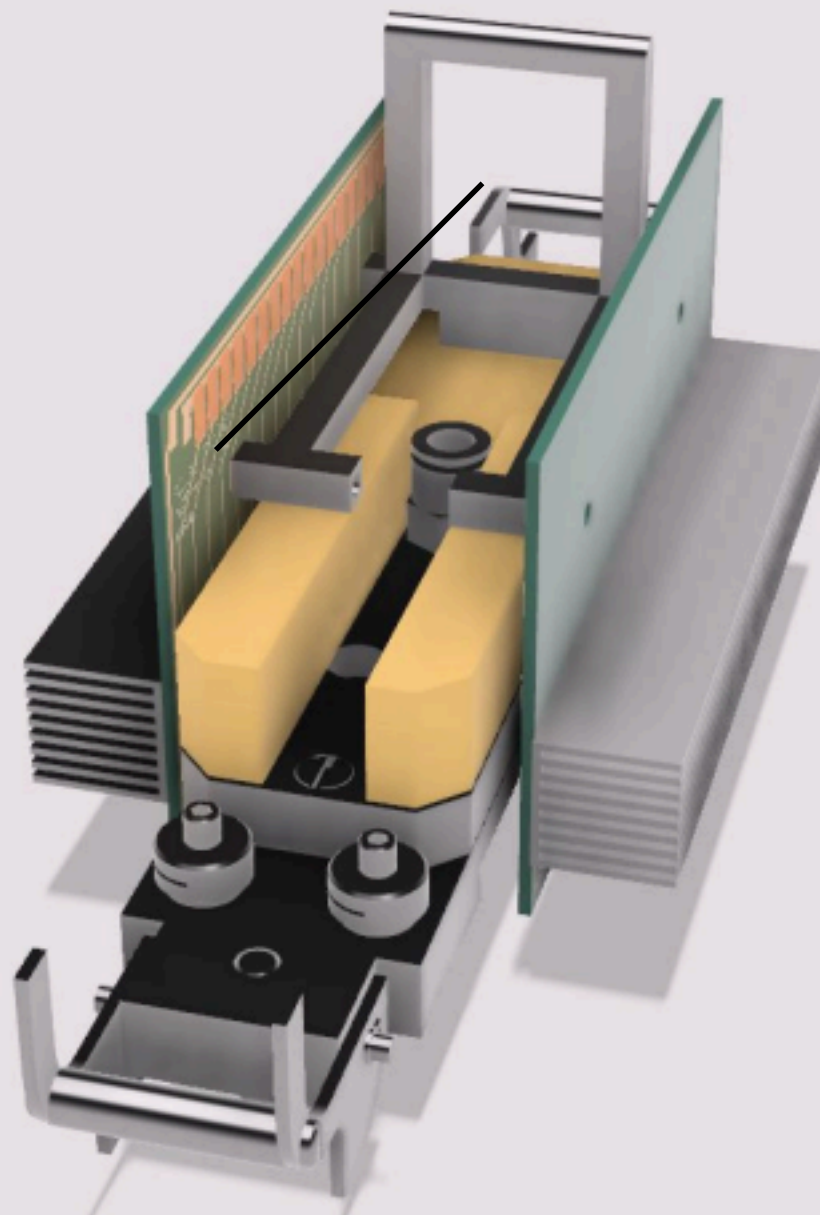


Tom and Willy

~~Current~~

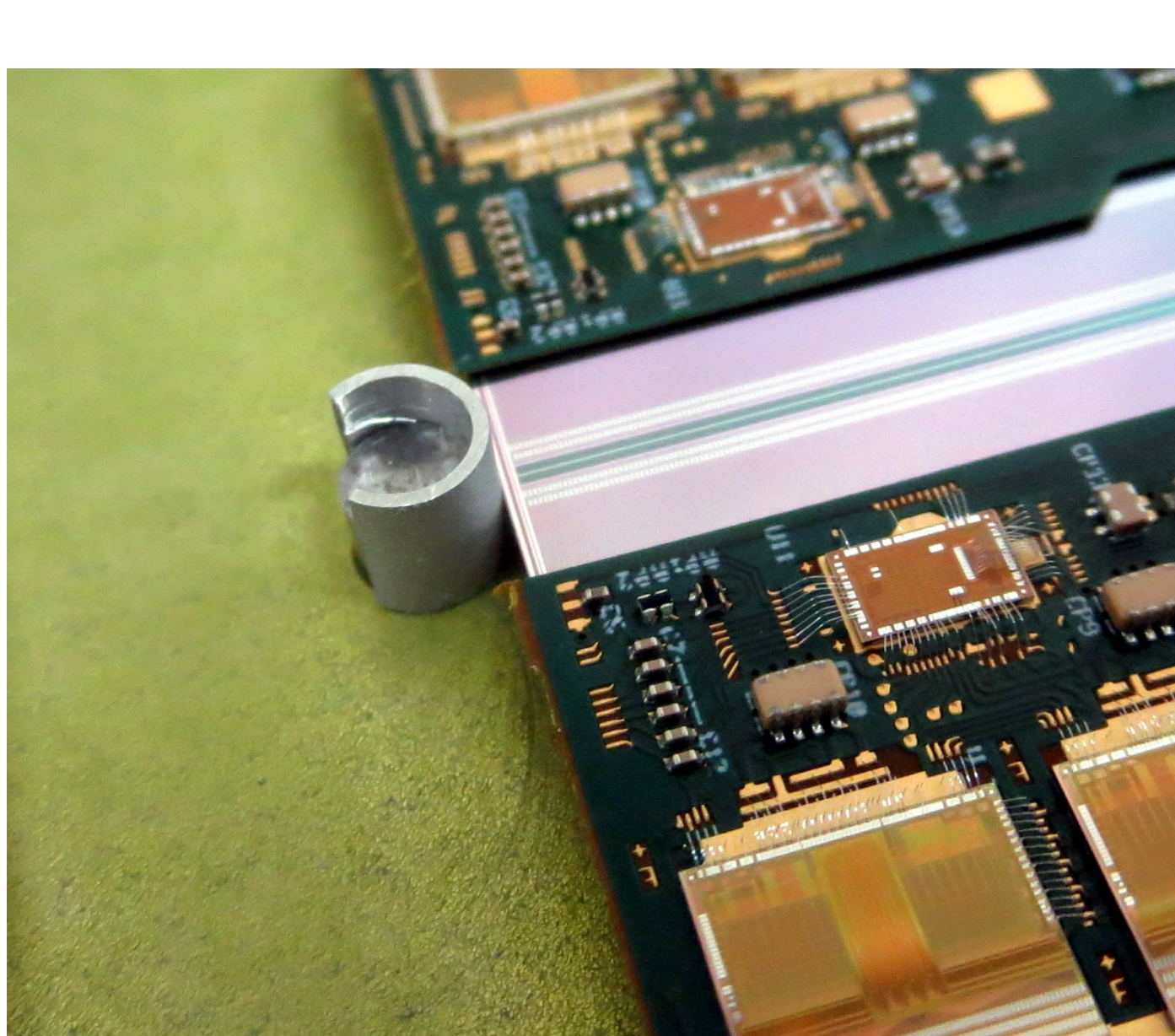
~~Future way for UV gluing~~

- **Change to 5V parallel circuit design for LED's**
- **Replace vertical aluminum with PCB with heatsink**
- **Use 2 PCB boards for dual side illumination.**
- **Reduce top weight and reorient access slot**

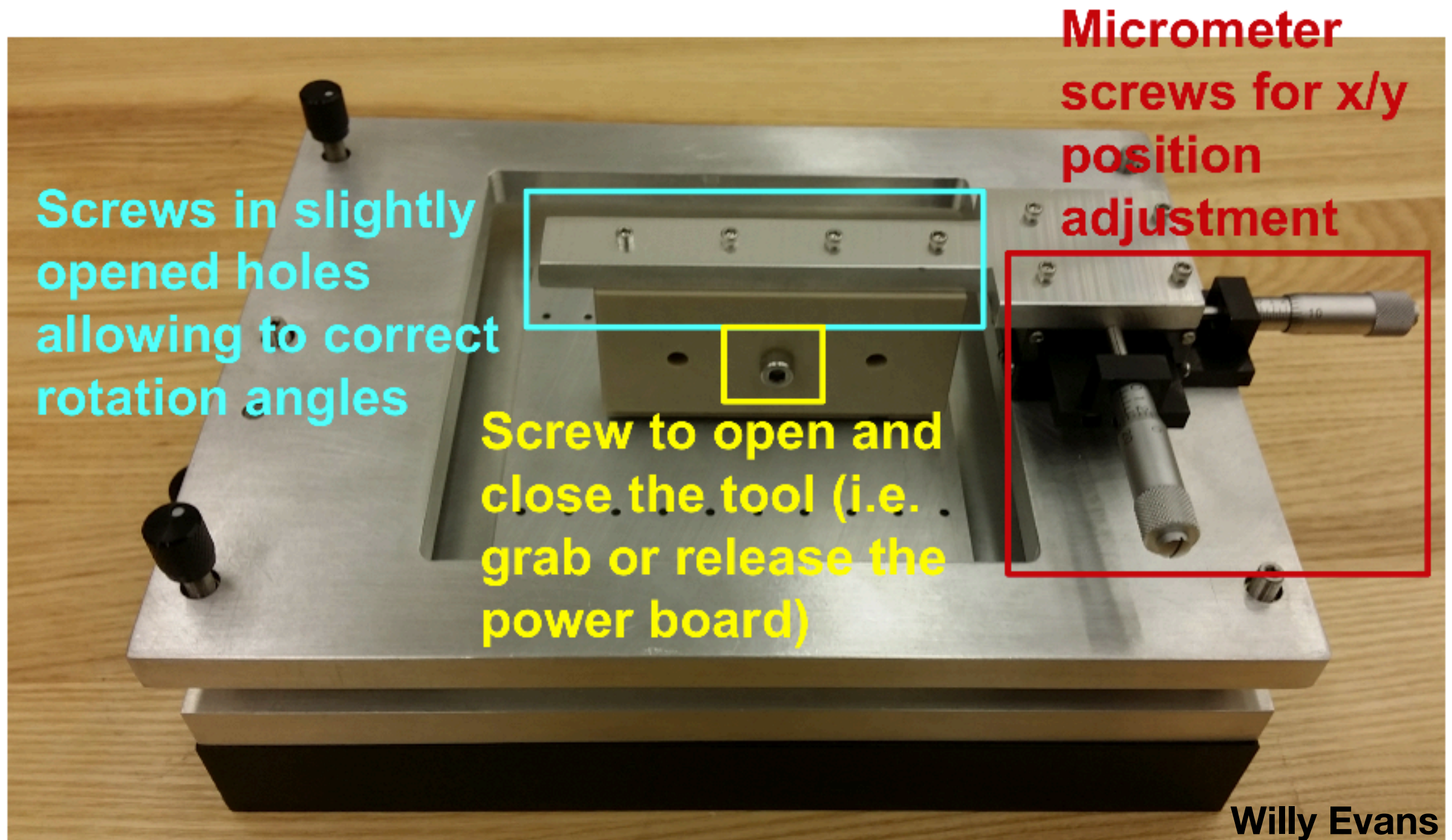


Willy Evans

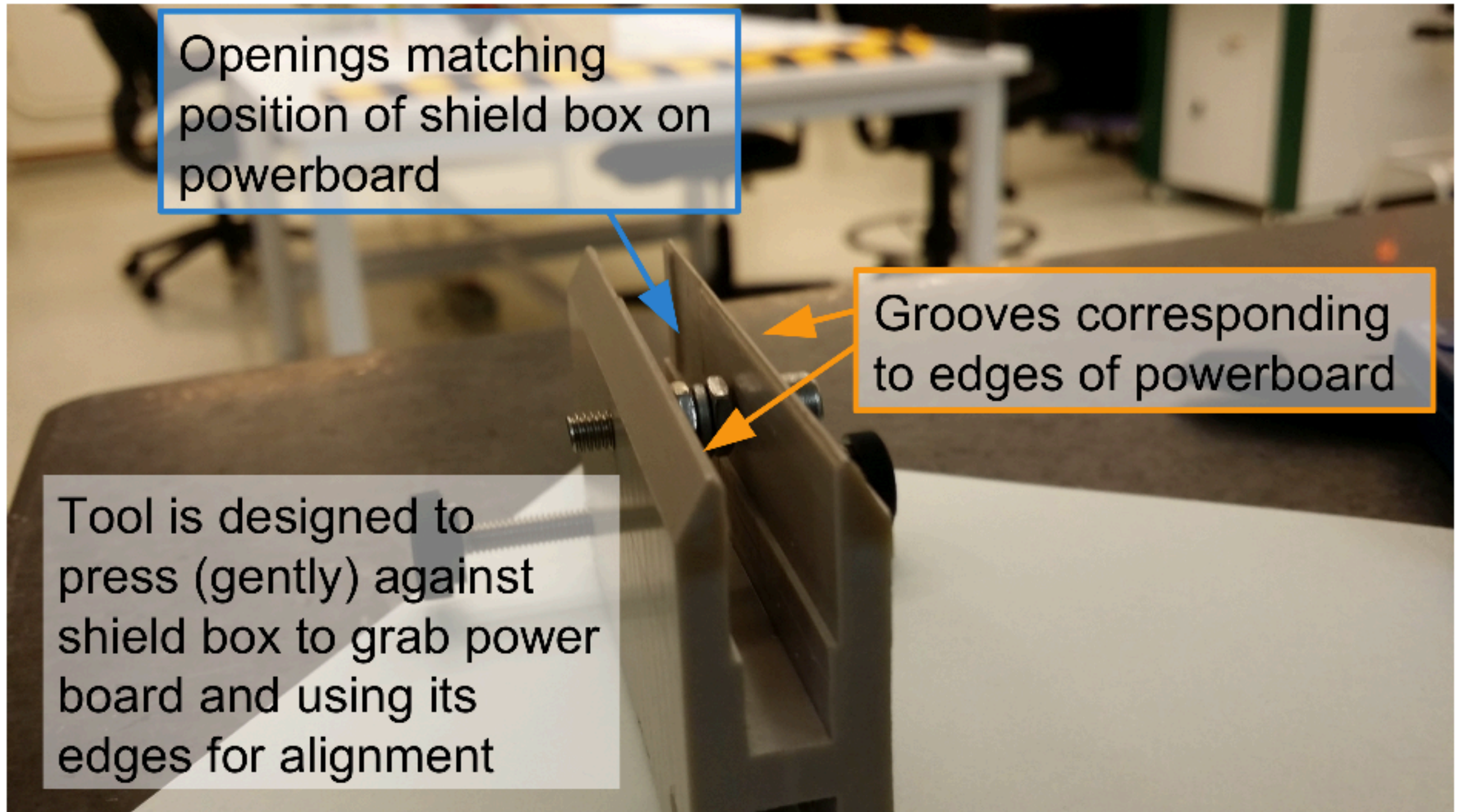
Sleeves for hybrids gluing



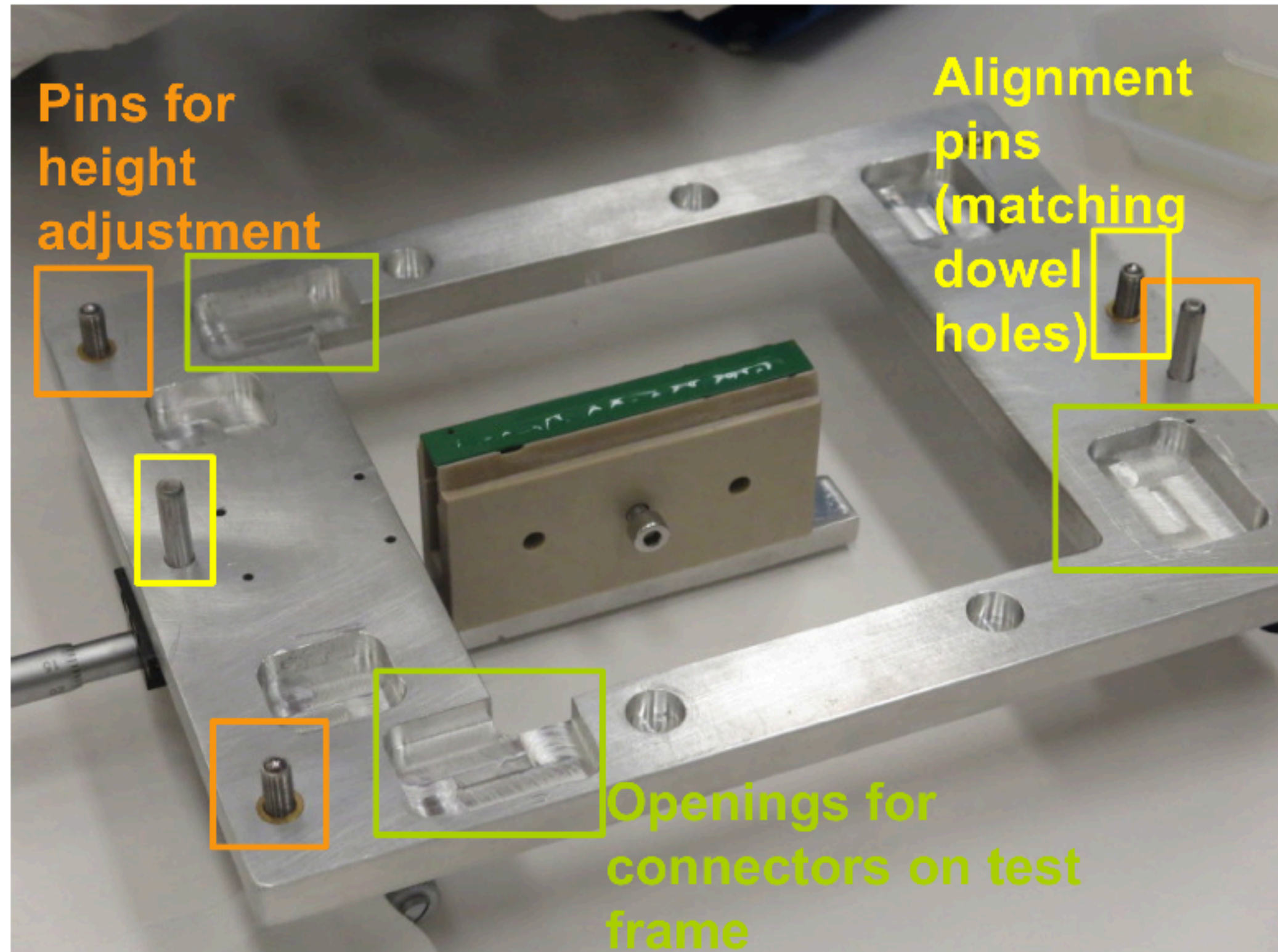
PB gluing tool - I



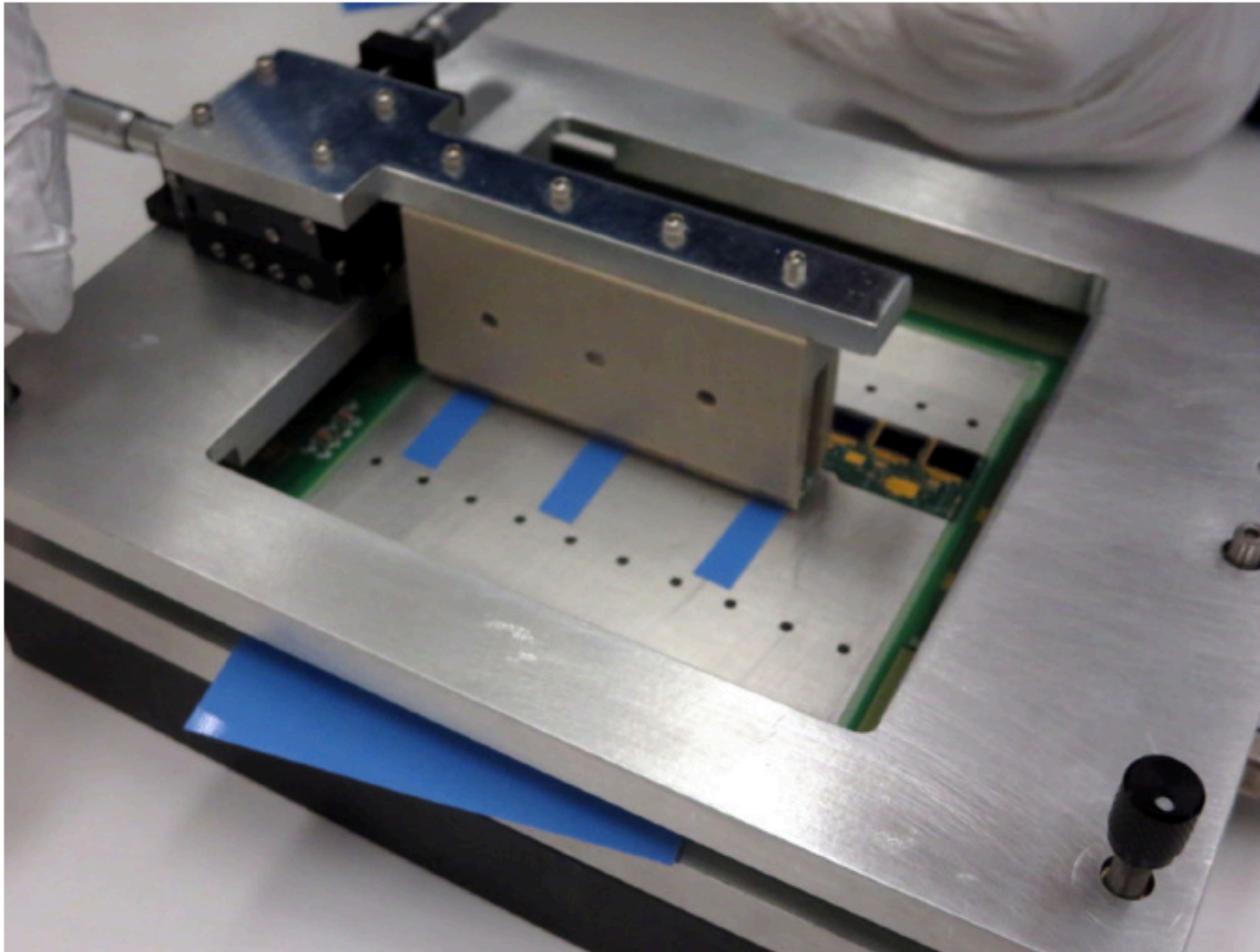
PB gluing tool - II



PB gluing tool - III



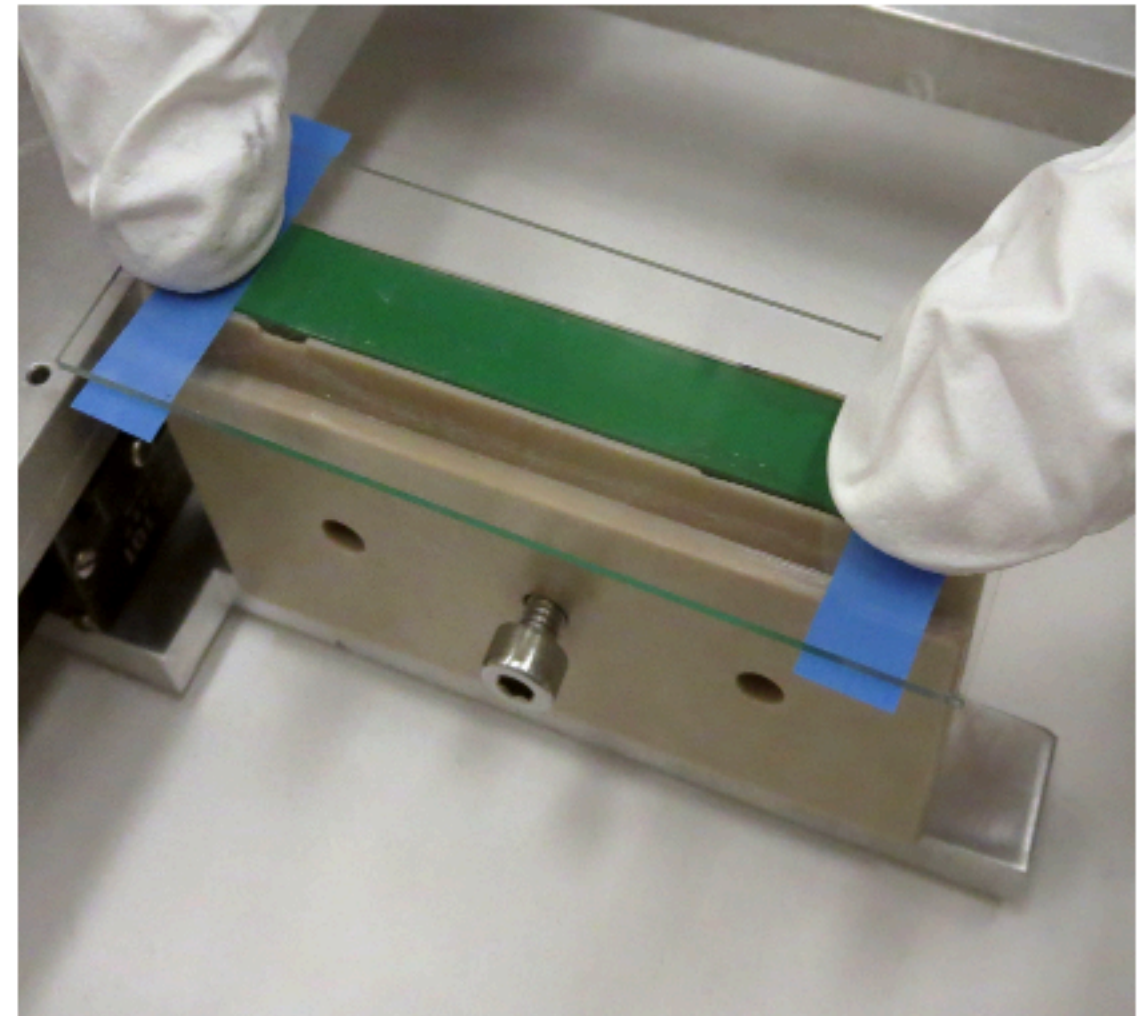
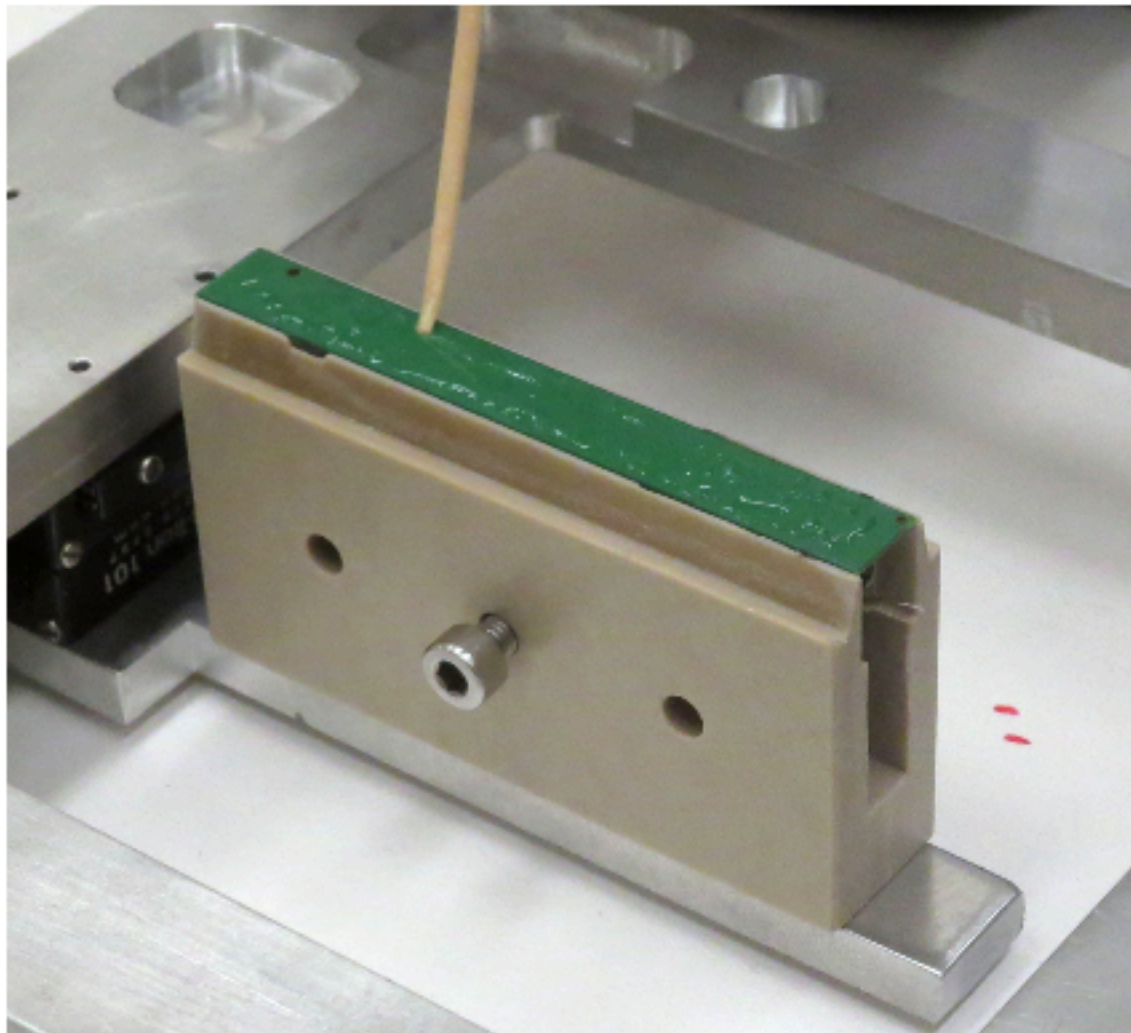
PB gluing tool - IV



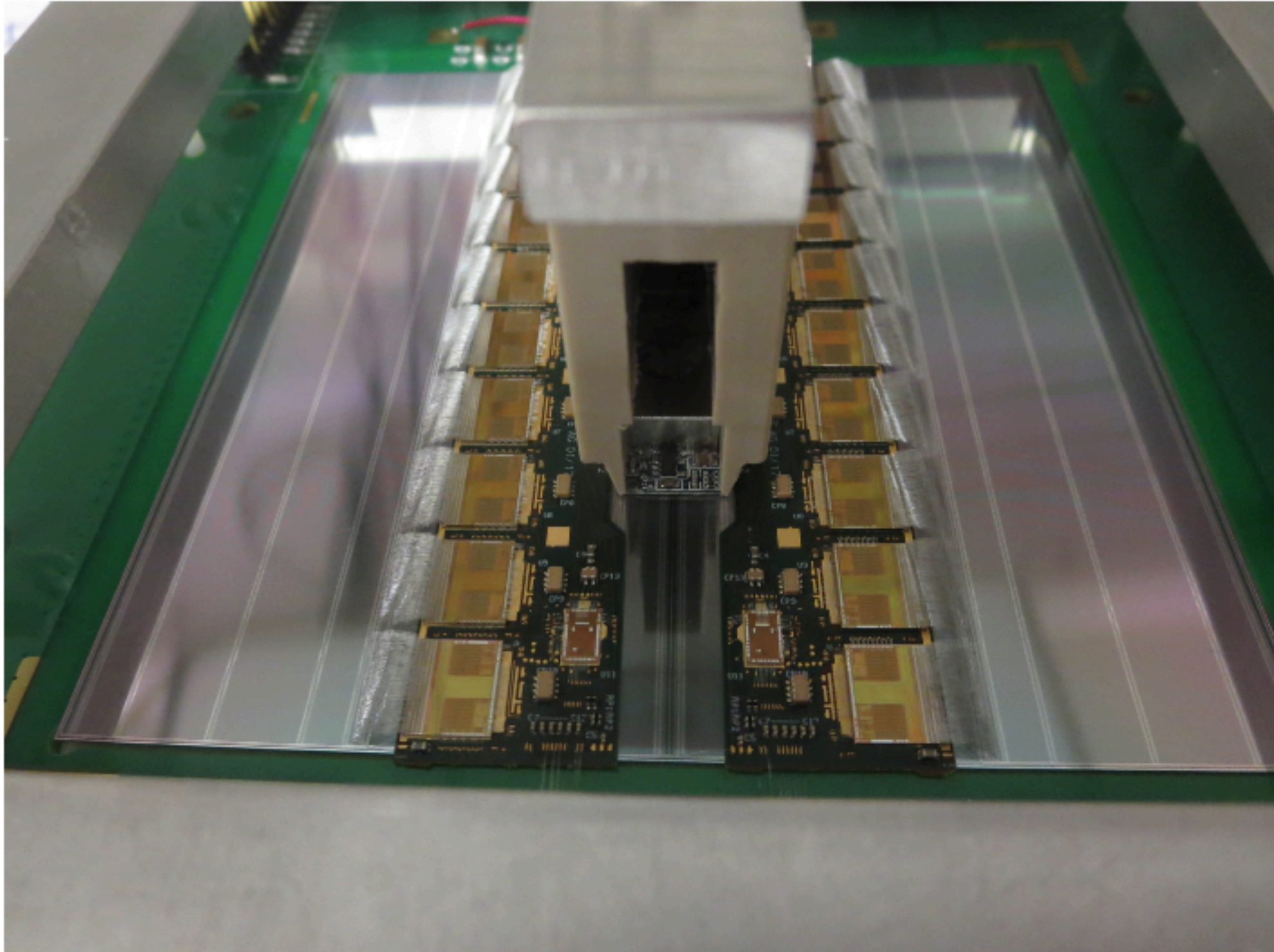
Fine adjustment using **strips of shims** in different positions of the gluing tool (check movement of shims under powerboard)

PB gluing tool - V

Plan for future: develop stencil for backside of powerboard for defined glue deposition, for now: test glue using shims and glass

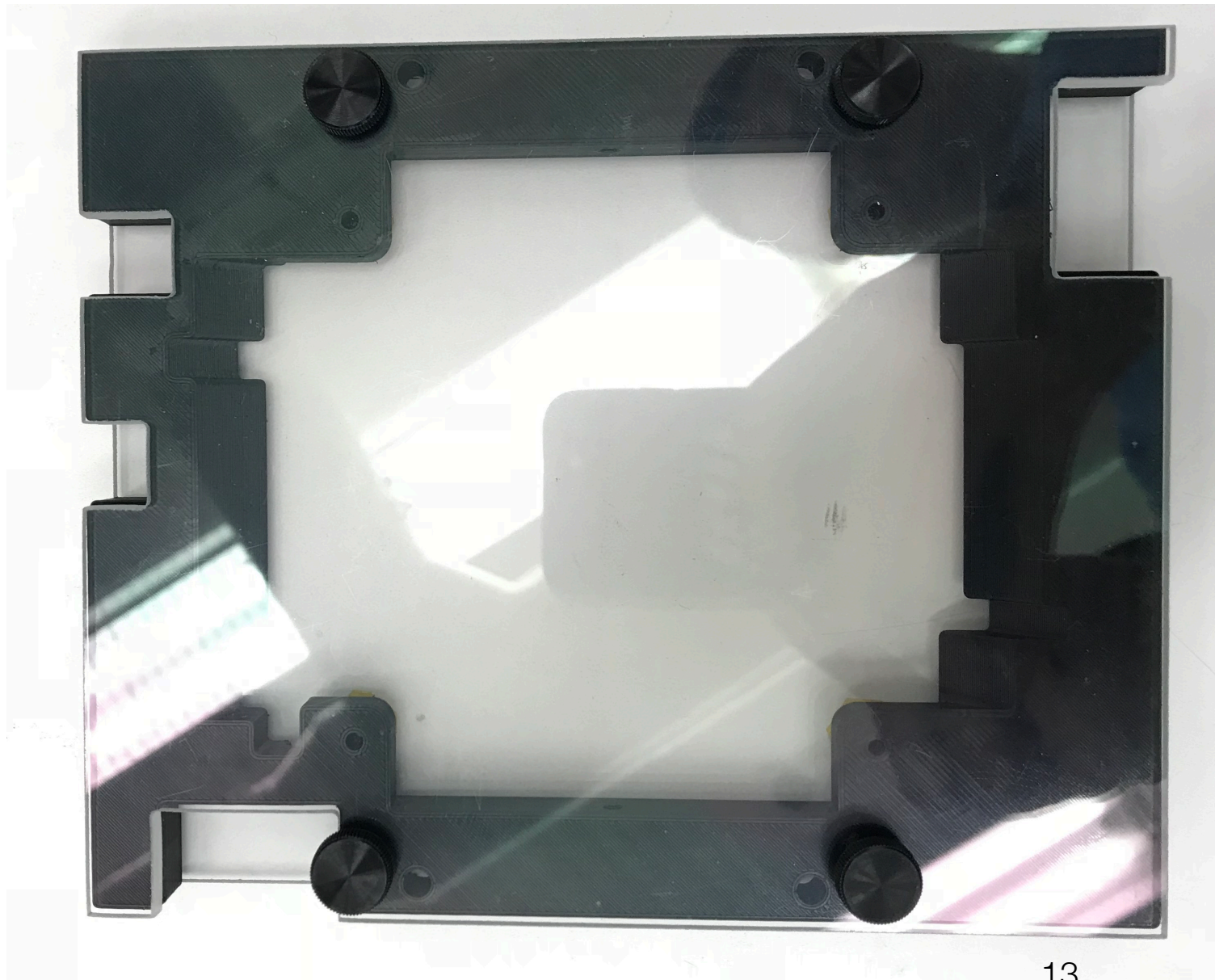


PB glued



Shipping box

- New modified 3D-printed ESD spacer;
- New screws and suction cups.

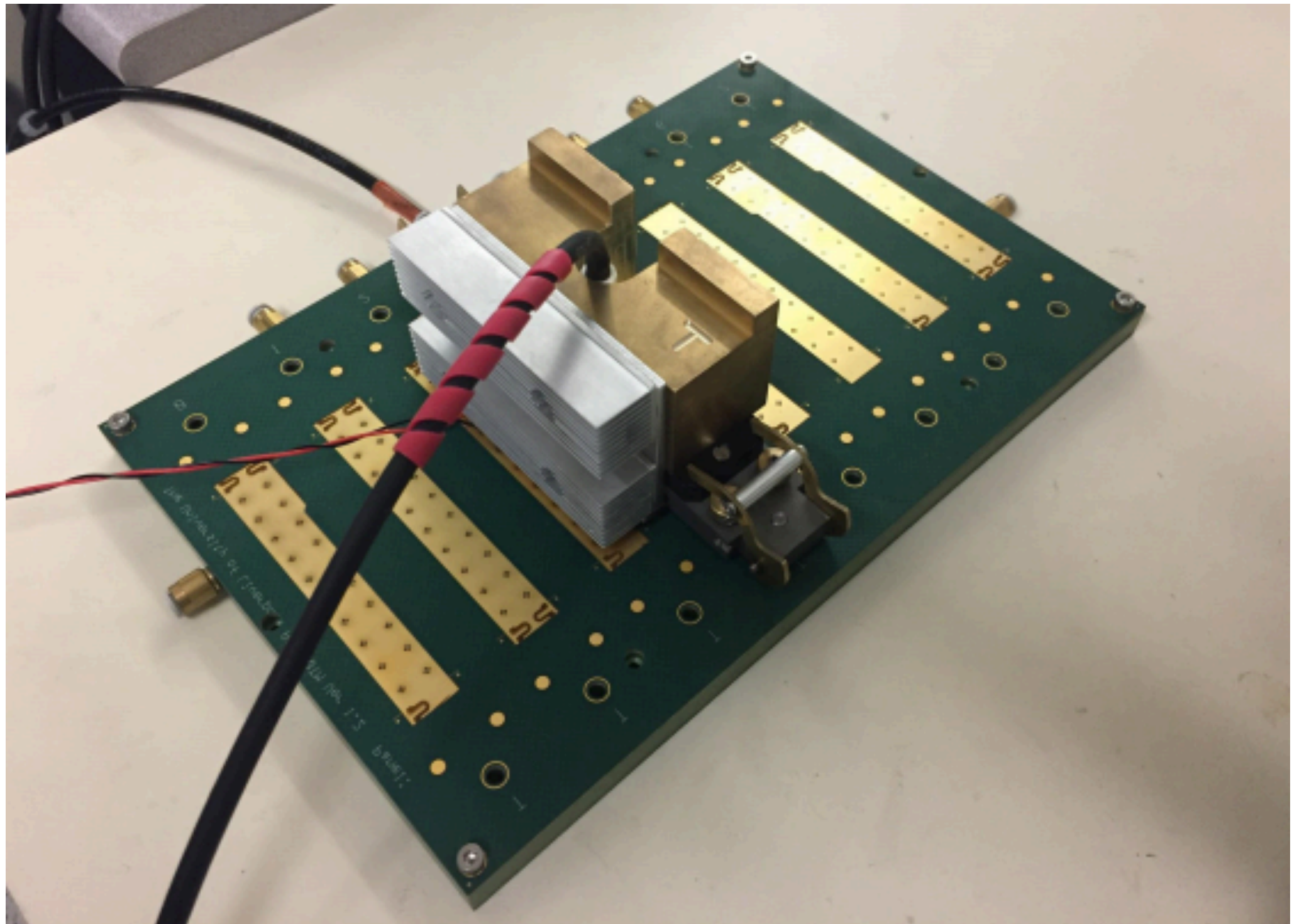


More..

- A lot of progress/improvements have been made, 3 more ABC130 modules to be assembled (if no problem happens);
- Other institutes expressed interests on new assembly toolings, tecs made drawings to circulate;
- Switched to use laser for metrology measurements.

Back up

Old way for UV gluing



Old way for placing PB

Placing PB - I

