



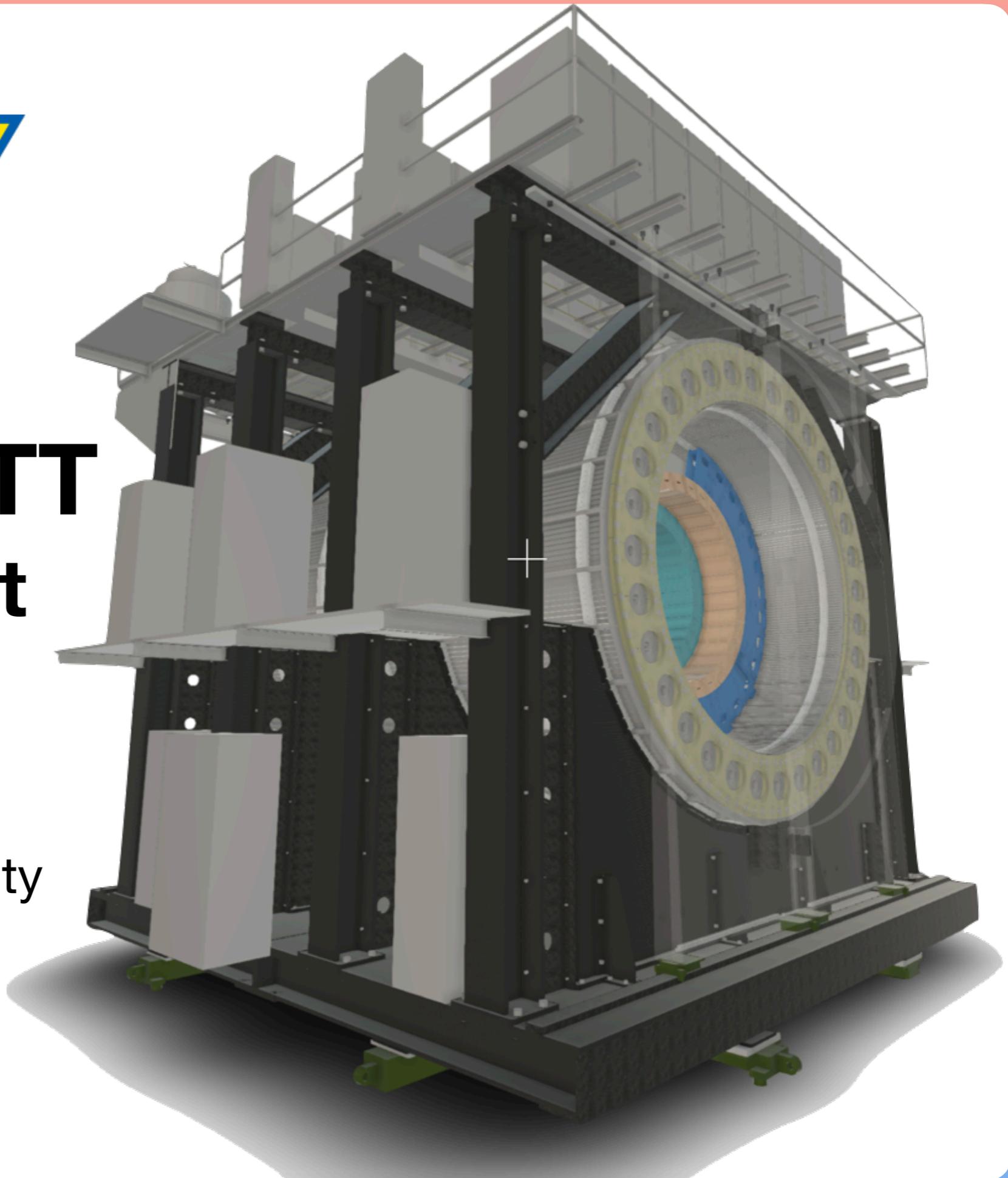
SPHENIX INTT

- Weekly Report

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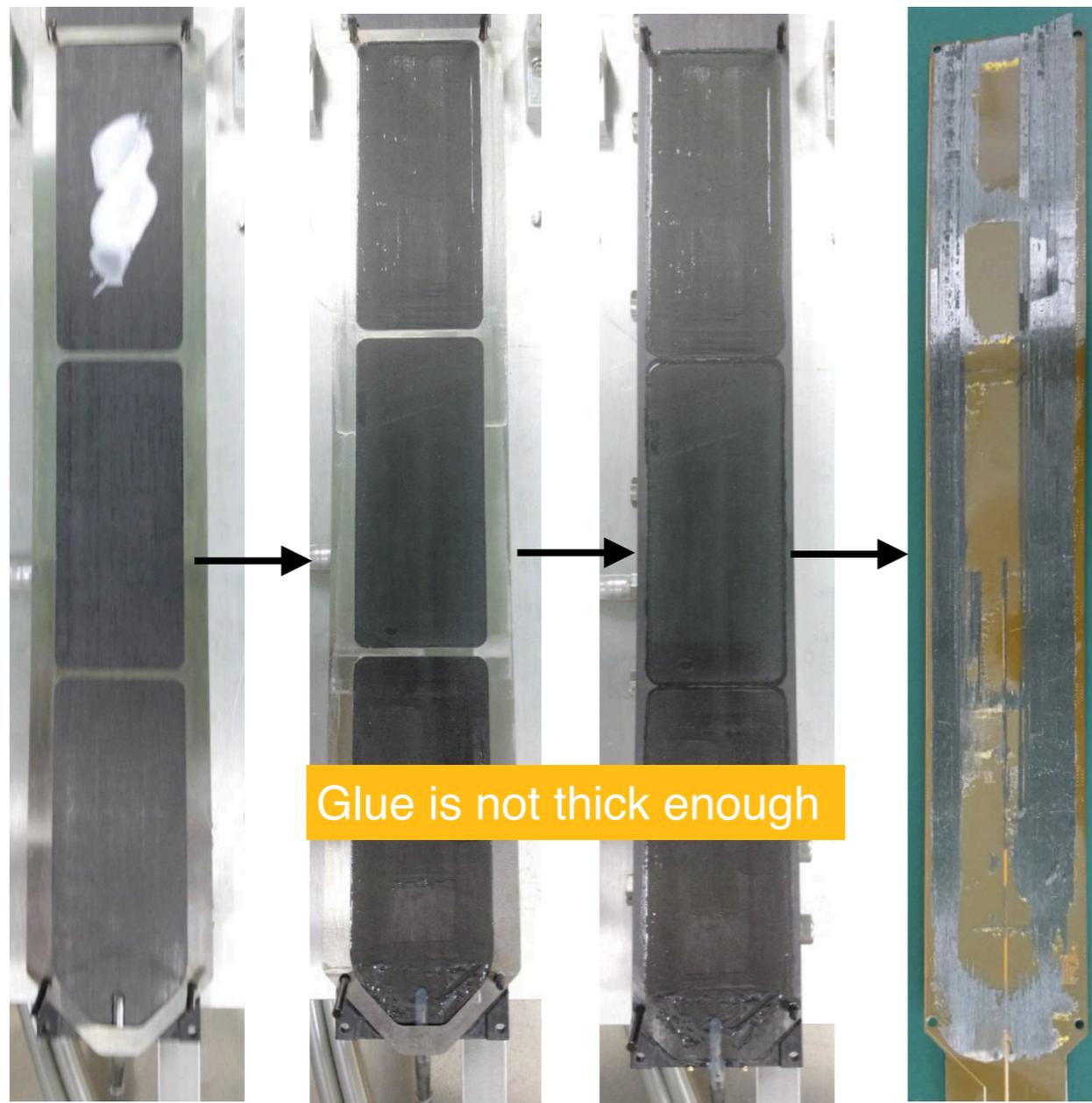
2021/7/14



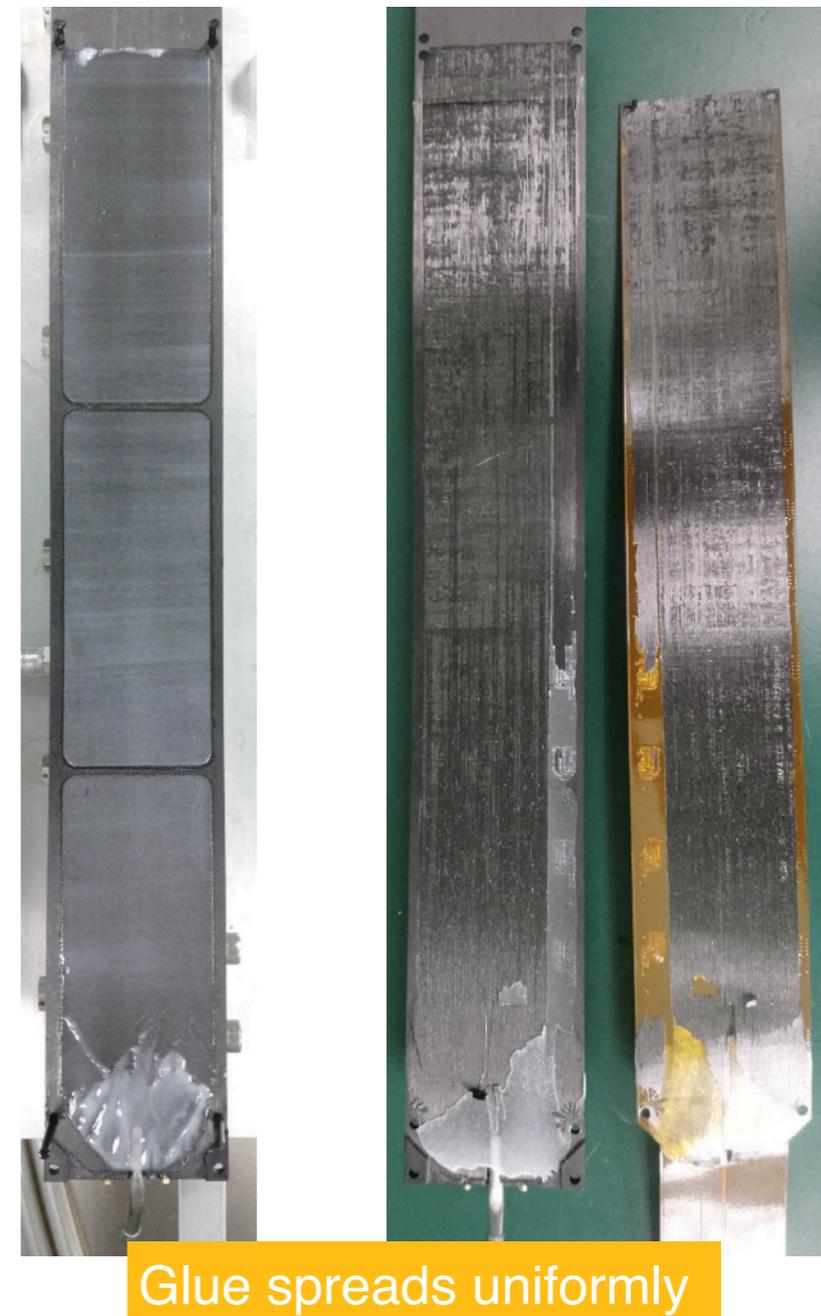
Stave glue test

- New approach : apply glue by using glue mask.
- The test was performed with bad staves and bad HDIs.

Trial 1



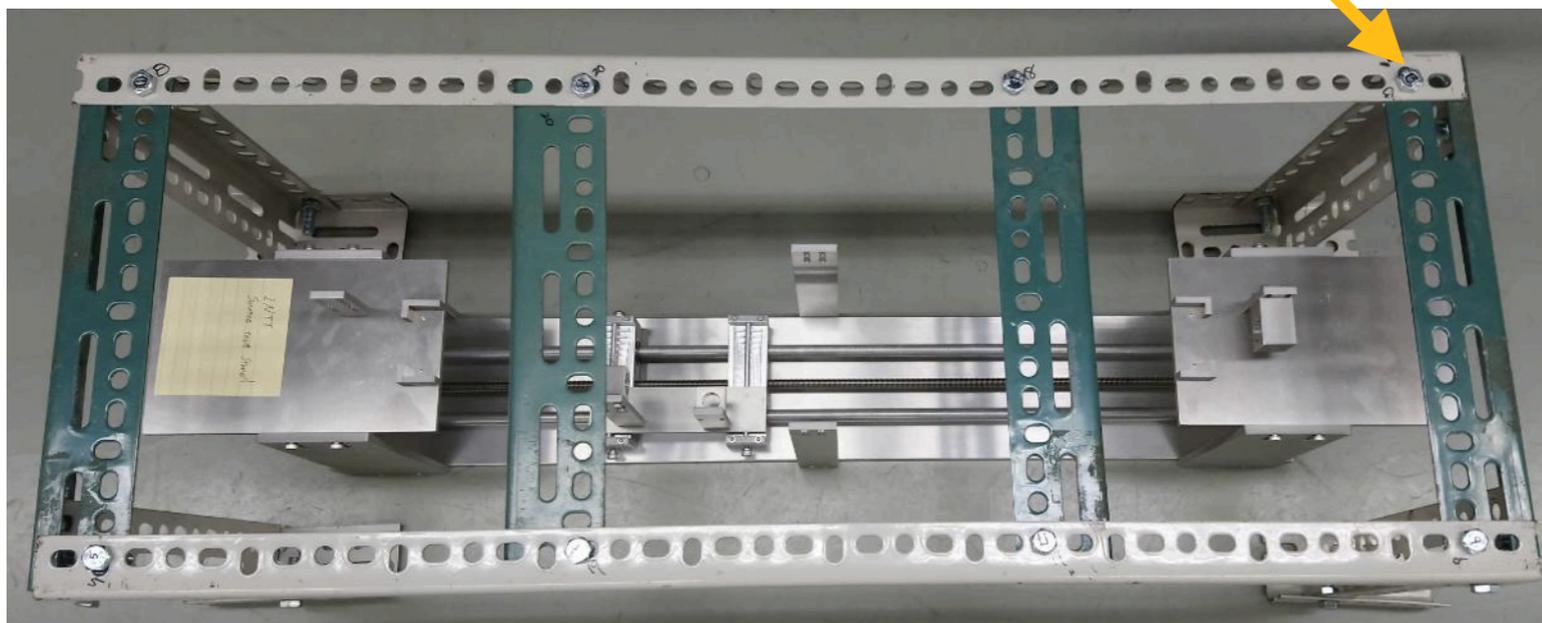
Trial 2



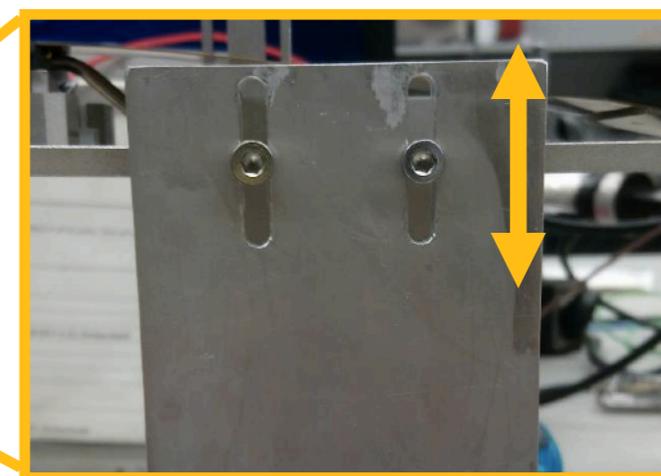
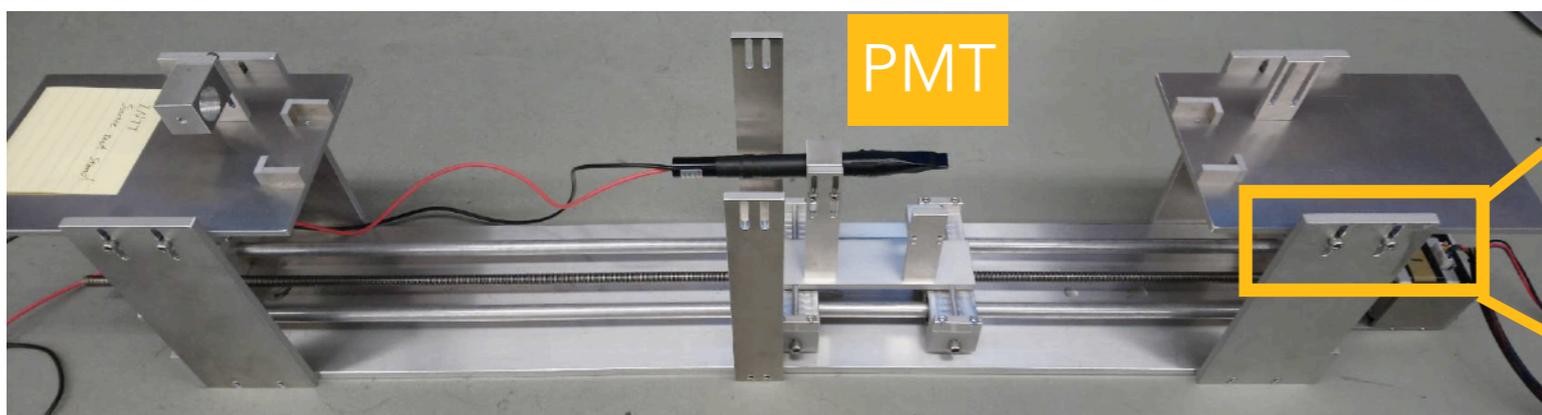
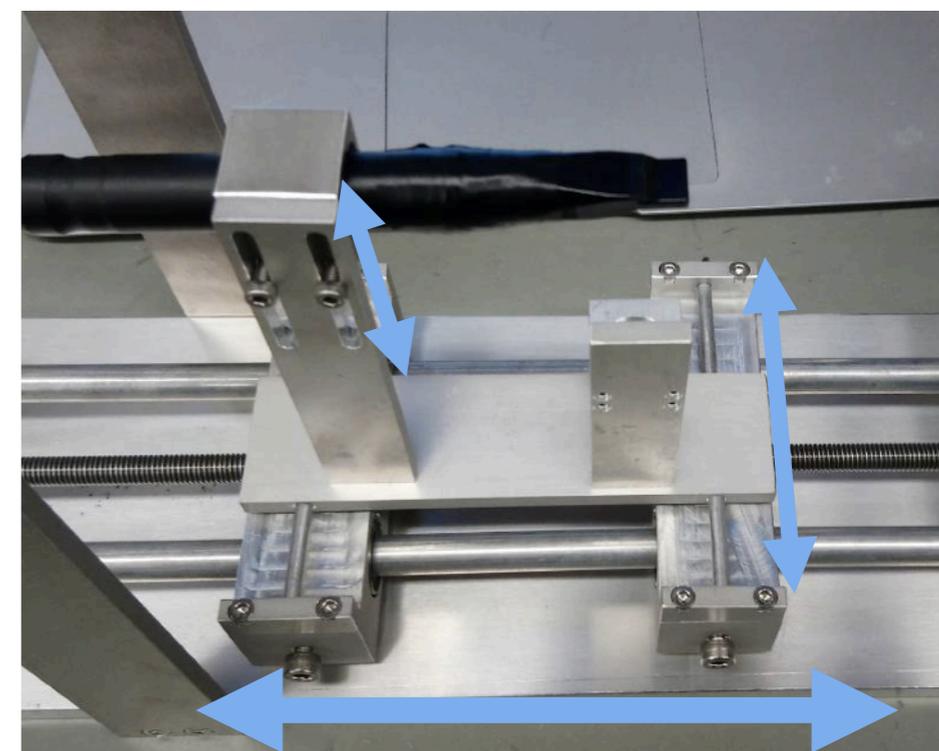
Source test preparation

- The assembly of source test fixture was finished.

Frame for black cotton

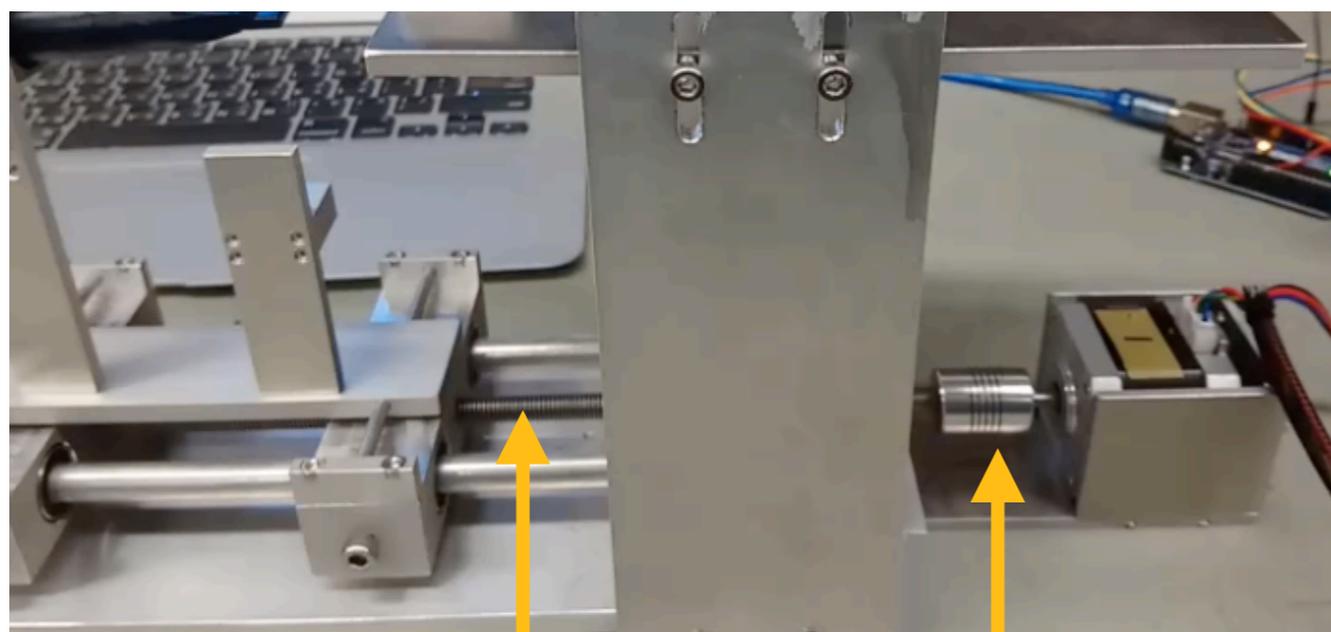


PMT base



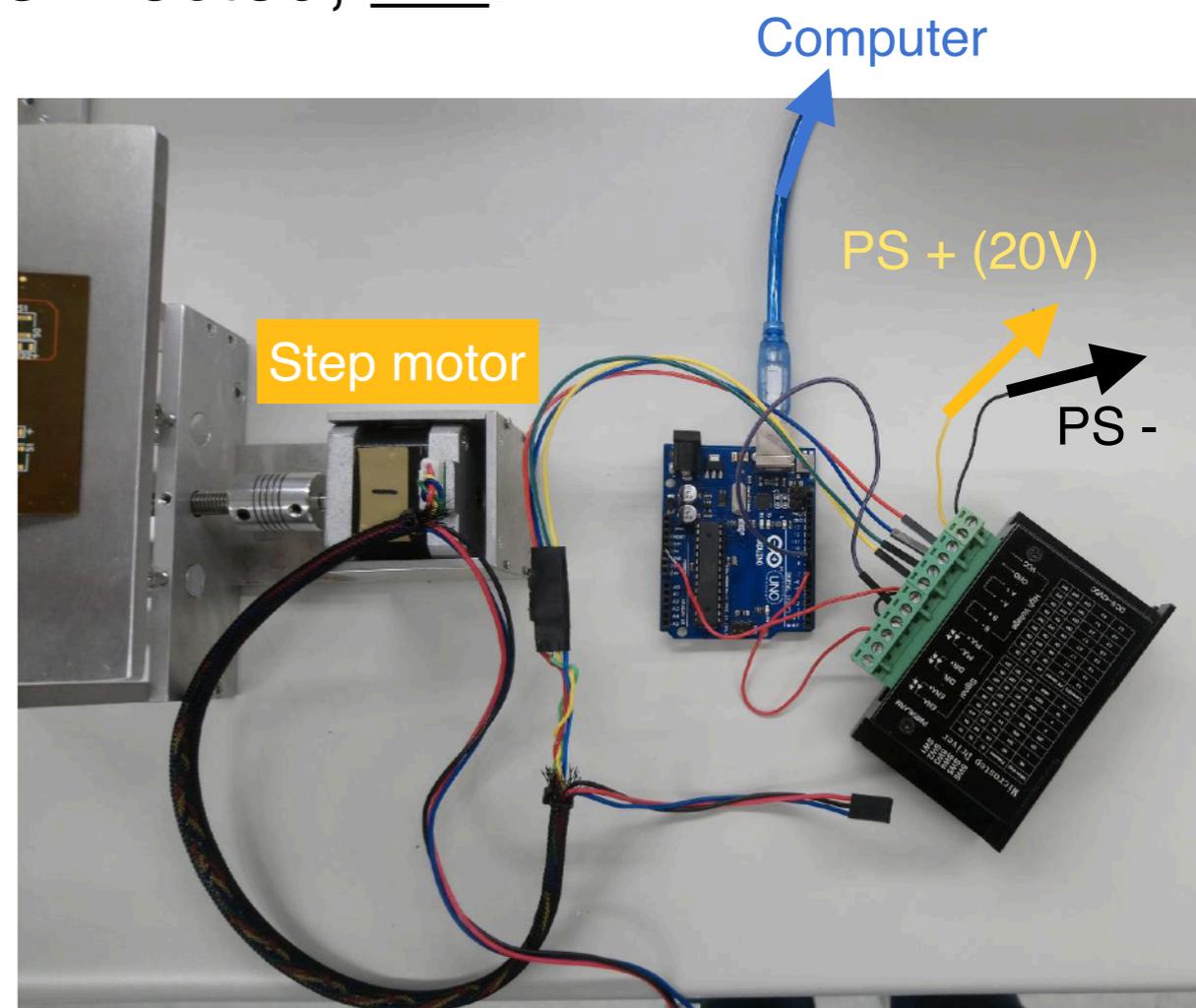
Source test preparation

- The PMT base is controlled by step motor.
- The step motor & fixture are well connected, [link](#).



Screw

5 to 8 mm adapter



Computer

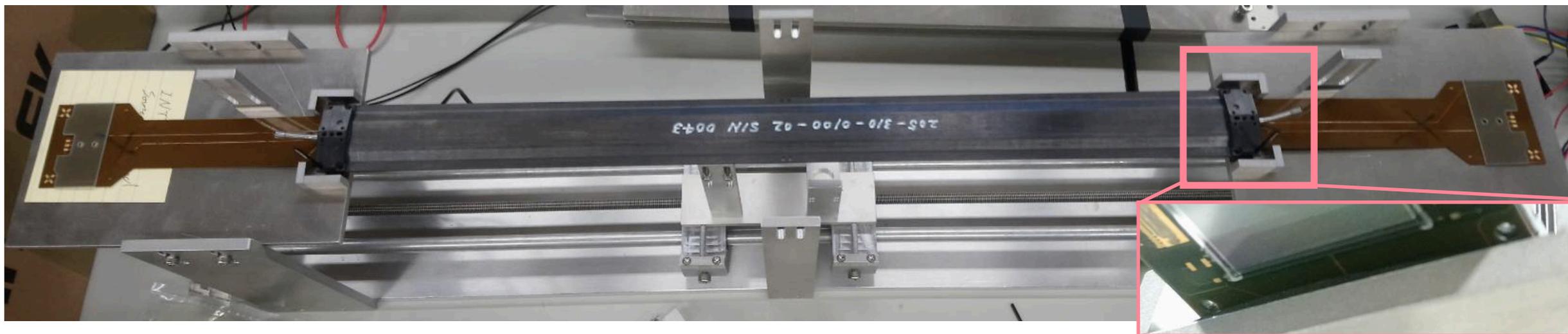
Step motor

PS + (20V)

PS -

Source test preparation

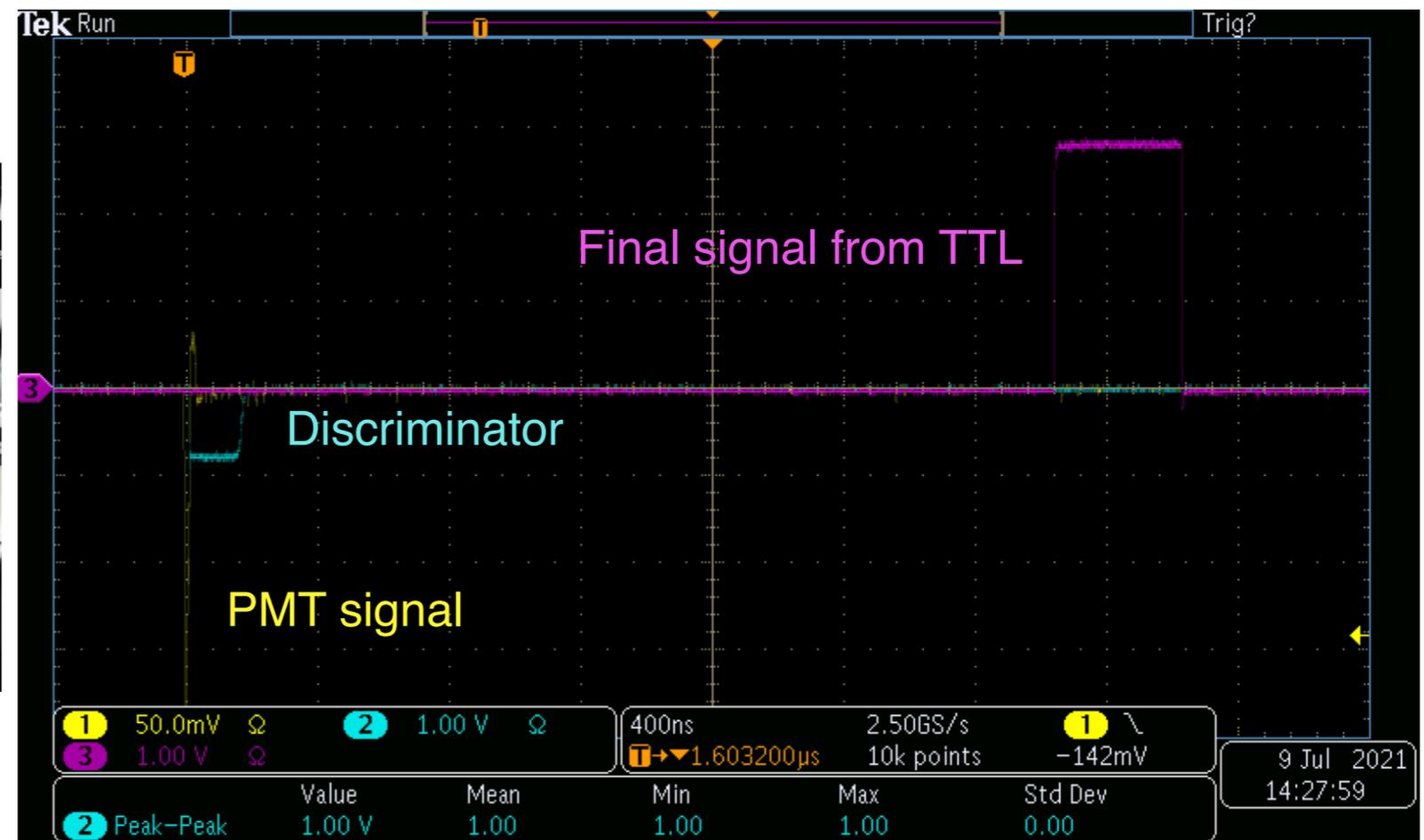
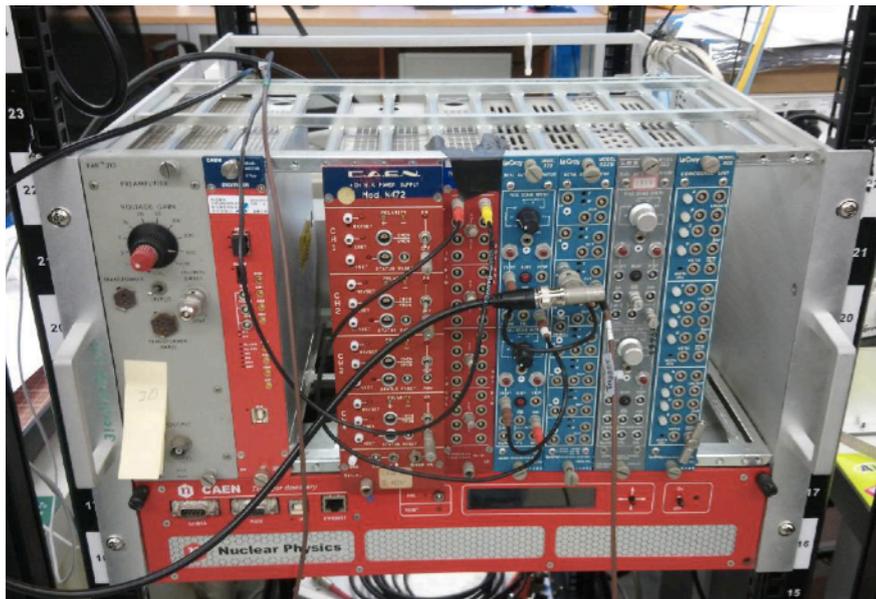
- 2 ways to place staves.



Peek base

Source test preparation

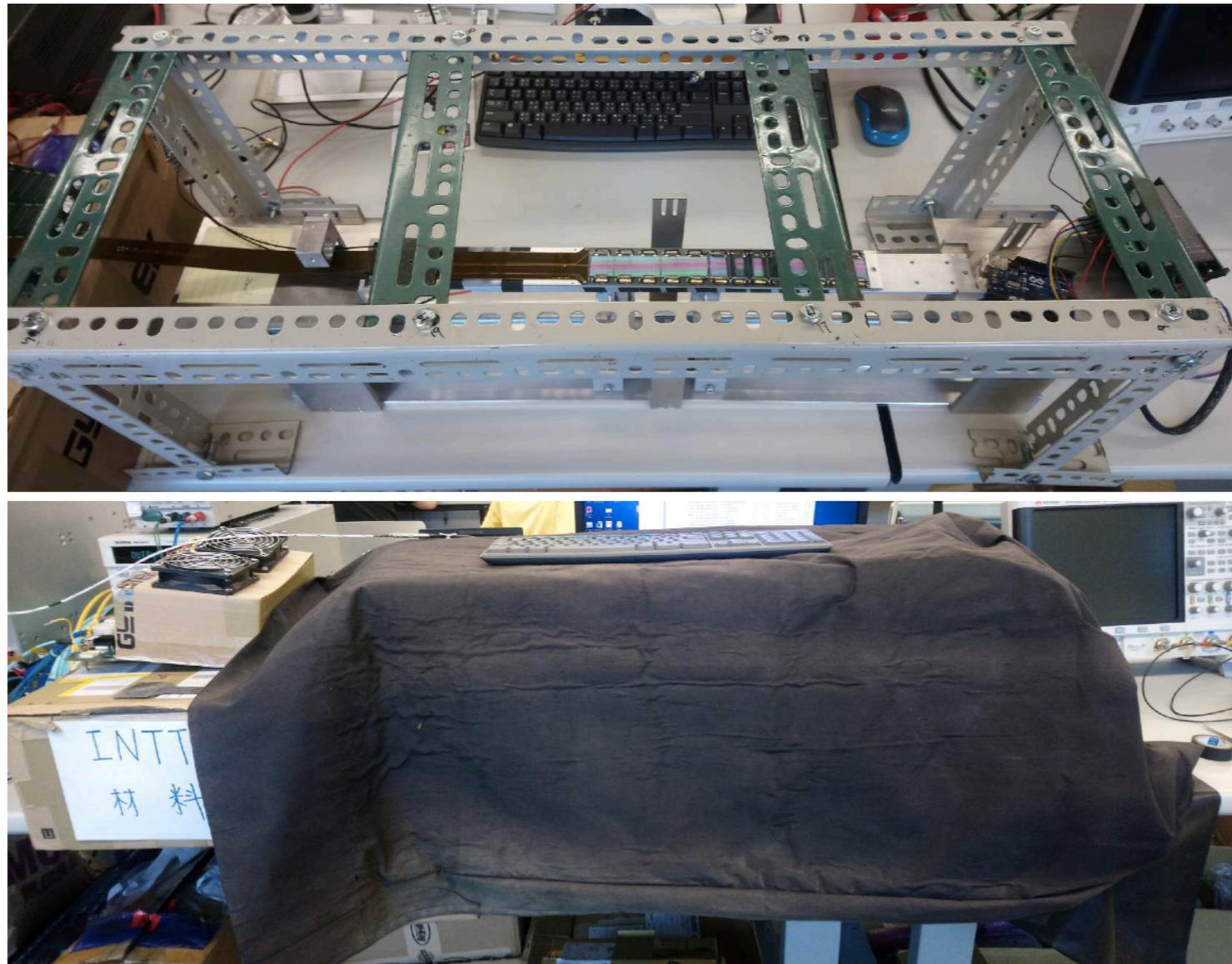
- The preparation of PMT electronics was finished.



Source test preparation



- Goal : run the cosmic test with half-ladder.
- I worked with Miu last 2 days. We haven't succeeded to run the cosmic test.
 - Several things can be tested.



Summary



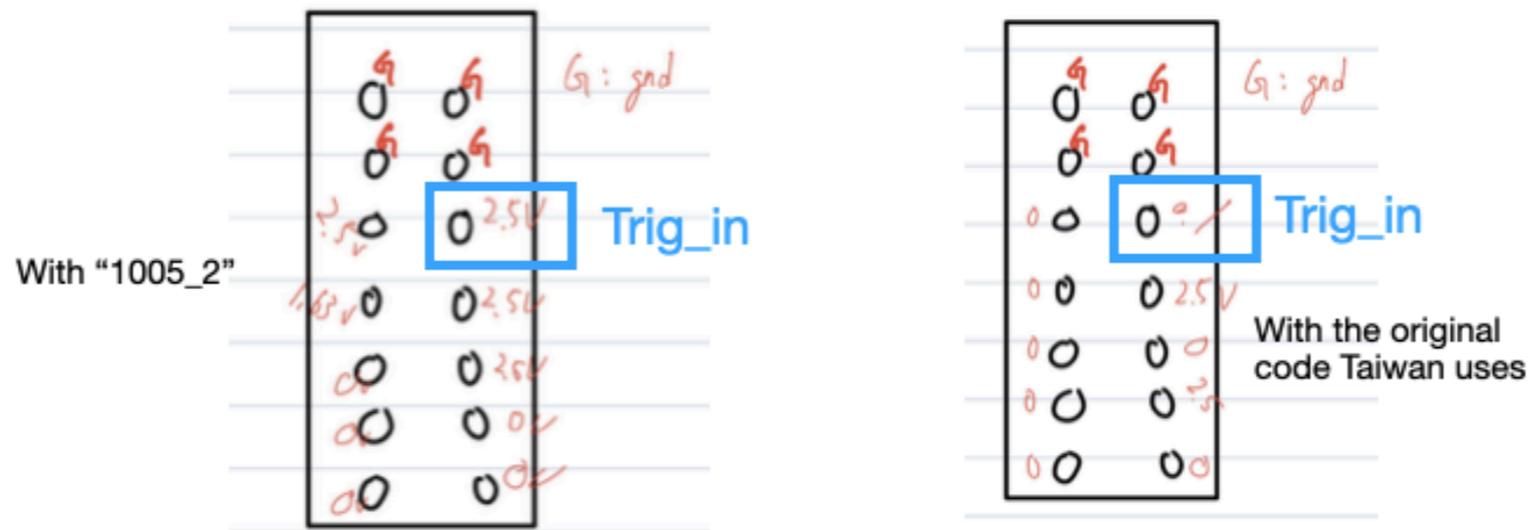
- Stave glue test.
 - The glue mask was used for applying glue. Glue can spread uniformly.
 - If the glue spread is ok. I will start the assembly this week.
- The assembly of source test fixture was finished.
- We are working on cosmic running. Several things can be checked.
 - Measurement of pin of FEM J4.
 - Try with different FEM board.

Back up



Cosmic test check list

- J4 measurements :
 - If I load “1005_2 FPGA code”, “trig_in” is 2.5 V.
 - I have tried with 3 FEM boards, the results are consistent.
 - If I load with my original FPGA code, “trig_in” is 0.1V.



- Cosmic test
 - I have tried to run the “cosmic test” with FPGA code
 - 1005_2
 - 1005_3
 - the original one Taiwan uses
 - The front light (light 20 of the DATA block) didn’t twinkle all conditions.
- Bottom port of FEM (DATA CH2)
 - I tried to do the calibration test with bottom port of FEM, but it was always empty. (one FEM board)

Cosmic test check combination



IMPACT

Left block	right block	FEM board	Fiber location	DAQ program
1005_2	FPGA_code	1	Upper	
NTU	NTU	2	Bottom	read_DAQ_self
1005_3		3		

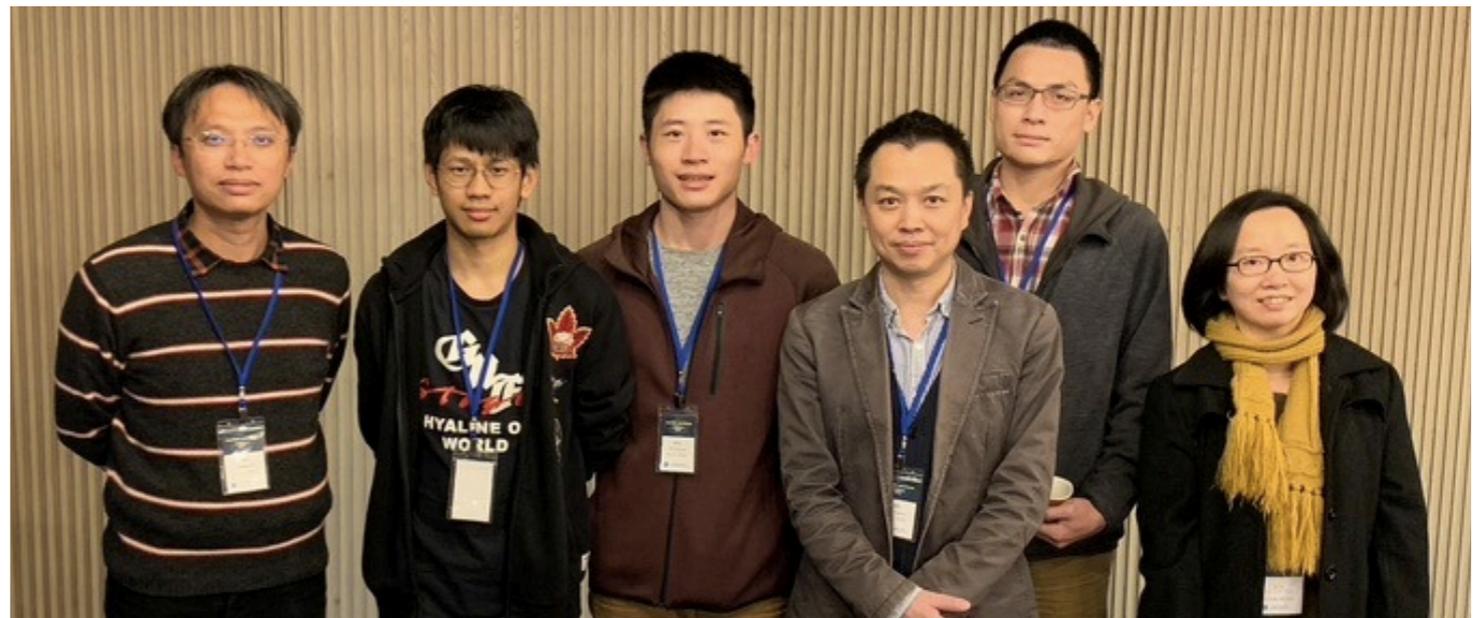
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