

Hall D

Commissioning Beam Test Preparation

Objectives

What I would focus during this beamtest (March 10)

- Commissioning and HGCROC readout
- Synchronization with AstroPix Quad/9-chip PCB
- If we have partial energy response from SFILs and timing, I think we would be more than happy before the August beam test
- August beam test will have physics objectives with Baby BCAL
- With the delay on Baby BCAL board, I will not prioritize it for the test

Mechanics

3-4 SFILs

1. How many can we make till then with SciFi?
 - a. Currently we have 1 SFIL with GlueX fibers (ANL SFIL) and 2 old ones from URegina
 - b. ANL will build one more with GlueX fibers (2-4 weeks needed)
 - c. 2 ANL SFILs + 1 URegina + 1 ANL dummy SFIL
2. Can we make them shorter if so?
 - a. Yes, we could cut SFILs in half
3. We might use 1 SFIL with dummy fibers
 - a. For extra radiator (if we want to measure, e.g., typical response to 4th SFIL at BIC)
4. I do not plan not at ANL for Baby BCAL. We have delays on it, and need to focus on HGCROC readout.
 - a. What is the update from URegina

Mechanics

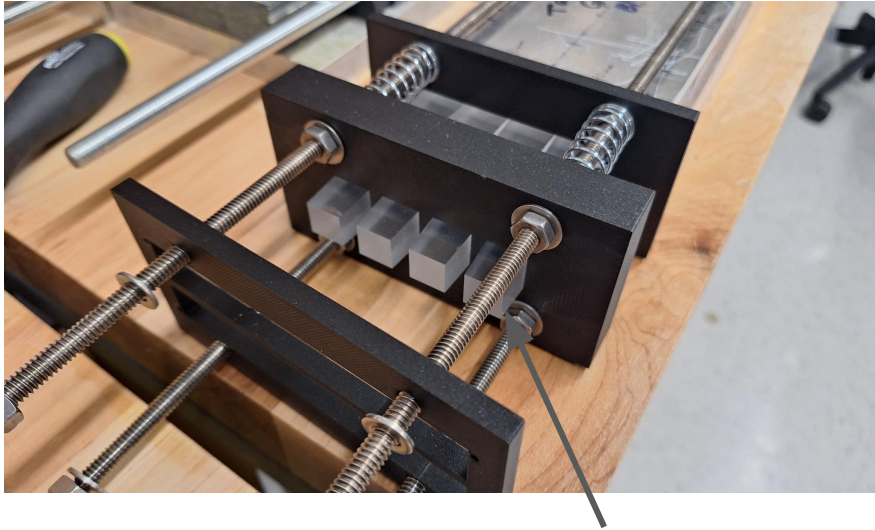
Thinning and SiPM + light guide mouning adjustment

SFILs base will need to be cut out

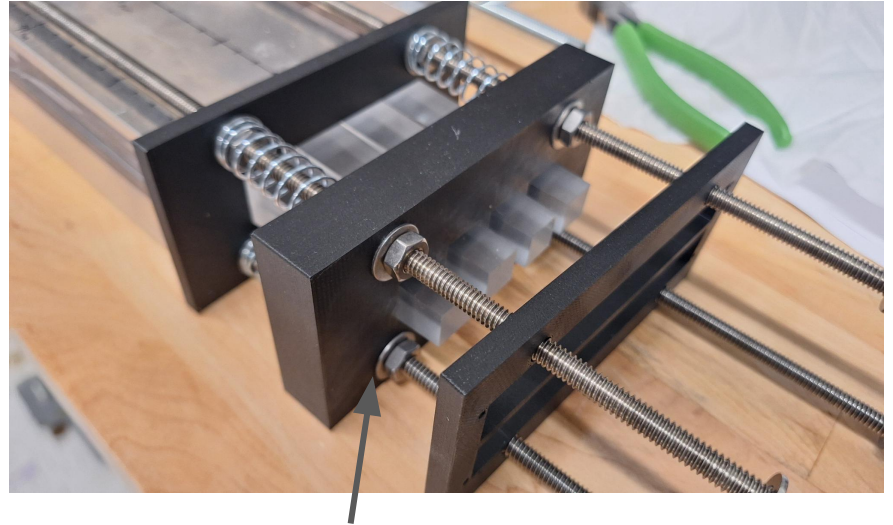


Mechanics

Thinning and SiPM + light guide mounting adjustment



SiPM board doesn't fit here



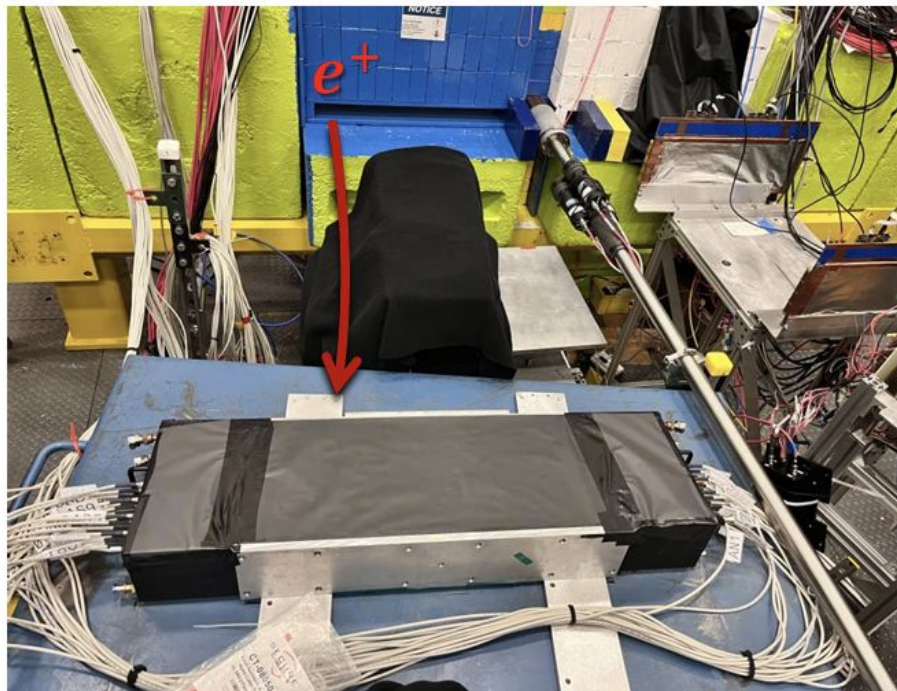
When we cut off the Al base we won't have this adjustment point

Mechanics

Setup for the beam test

- Discussing with Tom and Kevin
- 80/20 structure for holding 5 SFILs in parallel (shelf-like structure) with 2-side readout.
- Space for AstroPix quads/9-chip pcb
- Space for HGCROC readout boards and AstroPix boards on top (of the setup)
 - Samtec cables have limited length and they are very expensive (and we have significant financial limitation for M&S in PED this year!)
- Zisis mentioned table, but shipping it will be very expensive

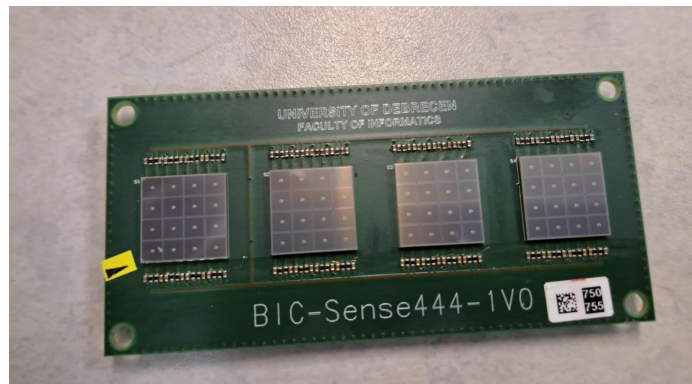
View from above



Readout

Setup for the beam test - SiPM boards

- SiPM boards with Samtec connector from Norbert - 3 (2 at ANL, 1 at ORNL)
 - Being tested at both institutions, look ok
- For 4 SFILs total we would need **5 more boards + 20 SiPMs**
- **Zisis, do we have 20 working “Lego” mini-SiPM boards?**
 - If yes, could we get them at ANL/ORNL so we can produce an adapter board for the Samtec connector
 - If not we need to order 5 more standard boards, Zisis could, you do that? If yes, could you populate with SiPMs?
- **What is the status of the summing boards?**
20 LG possible?



RCDAQ

Discussion with Martin on RCDAQ

- Same work can be done during the collaboration meeting
- But it looks like it's only me coming (Bobae didn't register on time with BNL, and Manoj travel was rejected because we do not have enough money, Andrien had problem)
- FPGA board (A-STEP board) is broken (Bobae tested it yesterday)
 - To discuss what do we bring? Single-chip AstroPix board/

Questions to Hall D

1. Trigger: Calibration runs. We will need a thin paddle (Can bring from ANL)
 - How do we calibrate? We will need the paddle in GlueX DAQ?
 - What cables?
 - We will need the signal from this trigger to HGCROC (build with NIM modules and generator, this is how we have done it at ANL)
2. Can we have small lab space available?
3. Table (motion table) for the setup
4. Who is coming to the beam test, JLAB user appointments.
5. Loan of Baby BCAL?