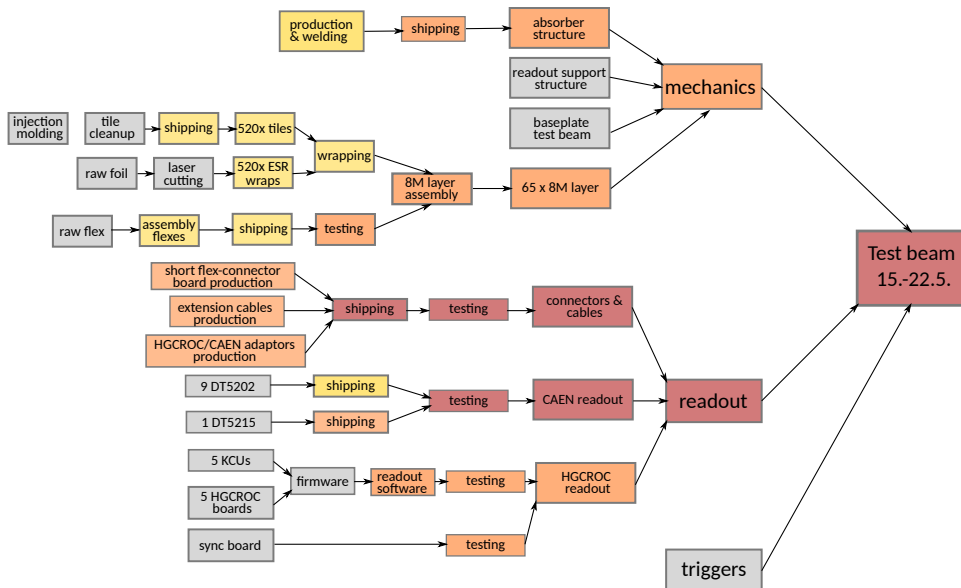


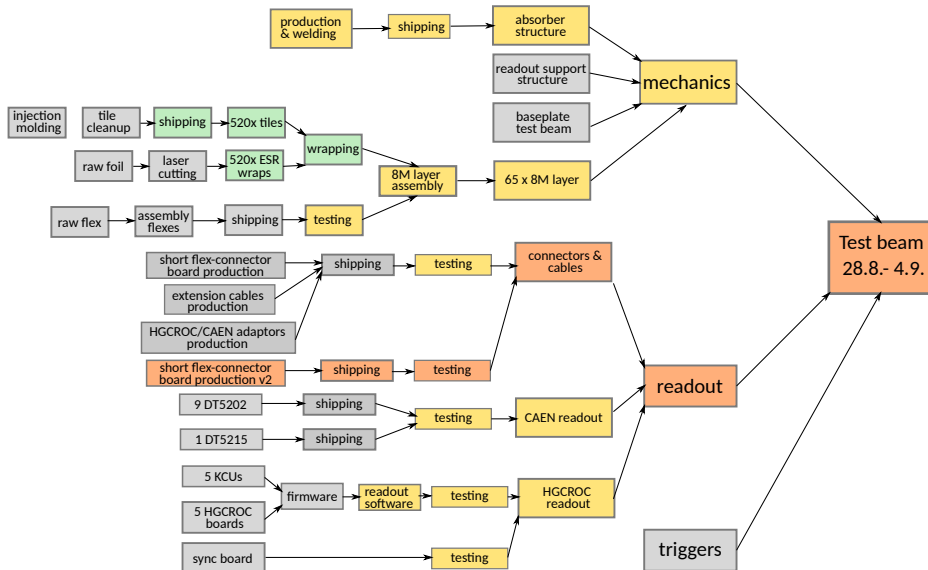
TB preparation status

May 22, 2024

TB preparations: Where we stood April 24th



TB preparations: Where we stand today



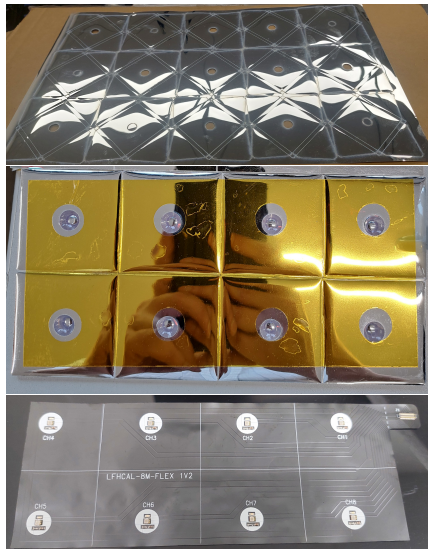
Absorber Structure

- Components confirmed & produced
- Most of the weldment done
- Last welds to be done 24th/25th May
 - ▶ Still needs dimensional verification, but so far everything looks ok
- Shipping to ORNL & measurements at leading edge & ORNL
- Then shipping to CERN
- After confirmation production of 4 additional modules for stacking tests

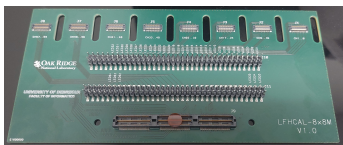
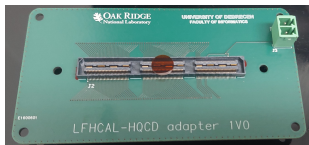
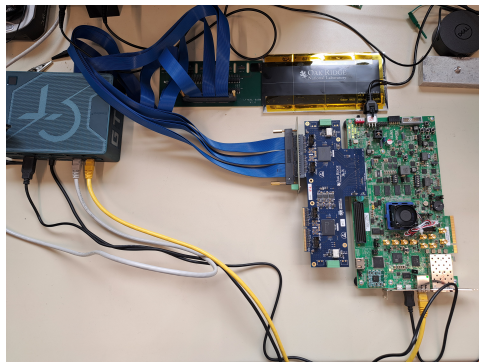


8M layer assemblies

- Tile production & wrapping
 - ▶ Newly produced tiles with correct dimensions at Valpo (3800) & ORNL (200)
 - ▶ ESR foil cutting in progress, but delayed until reception of tiles
- Flex boards
 - ▶ Board couldn't be assembled at ORNL, sent to Hungary for assembly
 - ▶ Production done & received at ORNL/CERN
 - ▶ Currently under test (8 boards) at CERN, looks promising so far
 - ▶ Will measure single photon spectra for all flexes prior to 8M layer assembly with summer students Cordney & Everett



- First production run of short-flex-connector board, extension cables & HGCROC/CAEN adaptors done
- Under test at CERN by Norbert, working in principle
- BUT short-flex-connector board with wrong orientation of high density connectors from flex to board
- ⇒ Can't be used for TB, will need to be reproduced
- New production files created, to be send for production this week
- Reproduction should take ≈ 2 weeks, remaining test can be done with existing boards



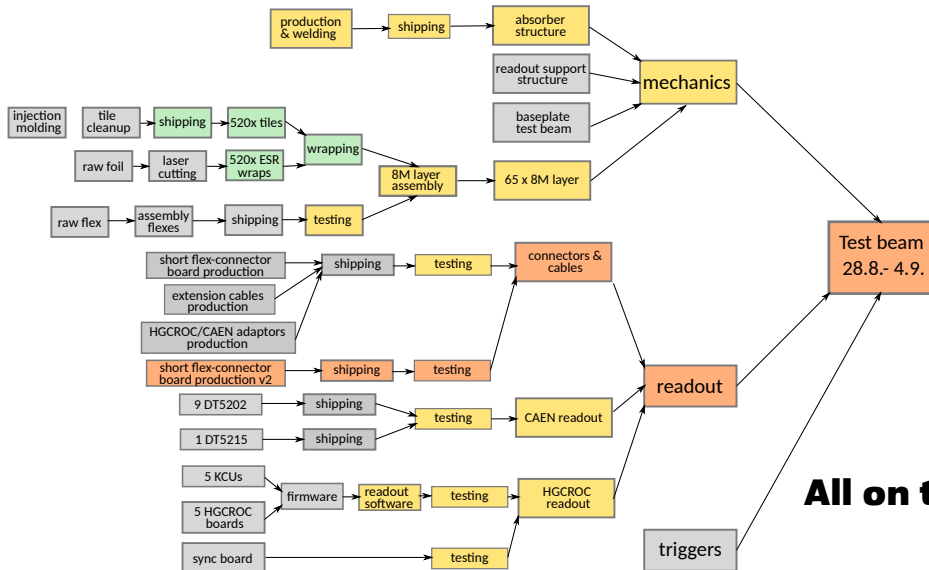
- Total 10 CAEN units identified which could be used (4 FoCal-H, 2 ORNL, 1 Yale, 3 ordered, 1 Valpo)
 - ▶ 3 ordered from CAEN to CERN directly arrived (still thinking whether to bring them back)
 - ▶ In contact with CAEN regarding firmware and software
 - ▶ Together with FoCal-H found a stable combination of versions for now → lets see how TB goes for them
- CAEN promised Concentrator unit (DT5215) for evaluation & delivered, at CERN right now
 - ▶ Currently under test with FoCal setup



- 5 KCUs available & 5 HGCROC boards produced
 - ▶ HGCROC boards being tested in TB with FoCal later this week
- Firmware written and largely tested
- Readout software programming in progress
- Synchronization board produced & under test
- TB with FoCal will show where there's room for improvements



TB preparations: Where we stand today



All on track so far!