

TPOT Status

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for the TPOT team
PMG meeting, Sept. 1, 2022

Micromegas detectors

- All modules produced, shipped to BNL, received, leak-tested
- All modules in gas at either BNL or SBU (4 modules at BNL in Ar, 6 modules at SBU in N₂)
- One bottle of Ar/iC₄H₁₀ available at SBU for HV tests. Missing are HV Mainframe and modules

Mechanics

- All parts for TPOT support structure received at BNL. Some needed small modifications. Assembly about to begin
- TPOT transportation cart, built at MIT/BATES is completed. Will be shipped to BNL ~ Sept. 12
- TPOT installation mechanics: design in progress, fixtures built at MIT/BATES. Meeting with Russ and others on Sept. 6.
- Contract between BNL and LANL, needed to place remaining orders on TPOT installation mechanics, about to be finalized

Others

- All FEE boards for TPOT readily available and being tested (burnt). 14/20 FEE boards “burnt”.
- Placing orders for remaining items:
 - HV cables (pending validation from BNL engineers concerning cable diameter),
 - gas and cooling lines,
 - SHV bulkhead connectors at patch panel
 - etc.

High level milestones and risk



With respect to PMG meeting on 6/24, dates have shifted further, but risk is now lower as they are more firm.
Delivery date unchanged

Milestone	date	Status	risk
Number of TPOT modules produced	Today	10	done
FEA analysis finished and reviewed	18/05/22	FDR happened. more FEA analyses requested. Agreed with TC to move forward	done
First batch of 5 TPOT Modules assembled & tested (Saclay)	06/03/22 → 07/06/22	6 modules assembled, test ongoing	done
FEE to detector fabricated and tested	06/23/22 → 07/23/22	cables/boards received on 6/21	done
HV system tested	06/16/22	happened on Week 21 (May 23)	done
Second batch of 5 TPOT modules assembled & tested (Saclay)	07/15/22 → 07/22/22		done
Characterization of all TPOT modules at SBU	08/08/22 → 09/09/22	delayed due to HV availability at SBU	low
Gas system designed, ES&H reviewed and tested	07/07/22 → ?	designed and ESRC reviewed on 6/21	low
TPOT mechanical support assembled	08/19/22 → 09/16/22	delayed due to last minute modifications	low
installation of modules on support structures	08/26/22 → 09/23/22	pending validation of the modules	moderate
End of TPOT assembly	09/30/22 → 10/21/22		moderate
Installation of TPOT in sPHENIX	10/24/22	(also depends on sPHENIX schedule)	moderate

Pictures

