

Activities at BNL: Barrels Assembly Status

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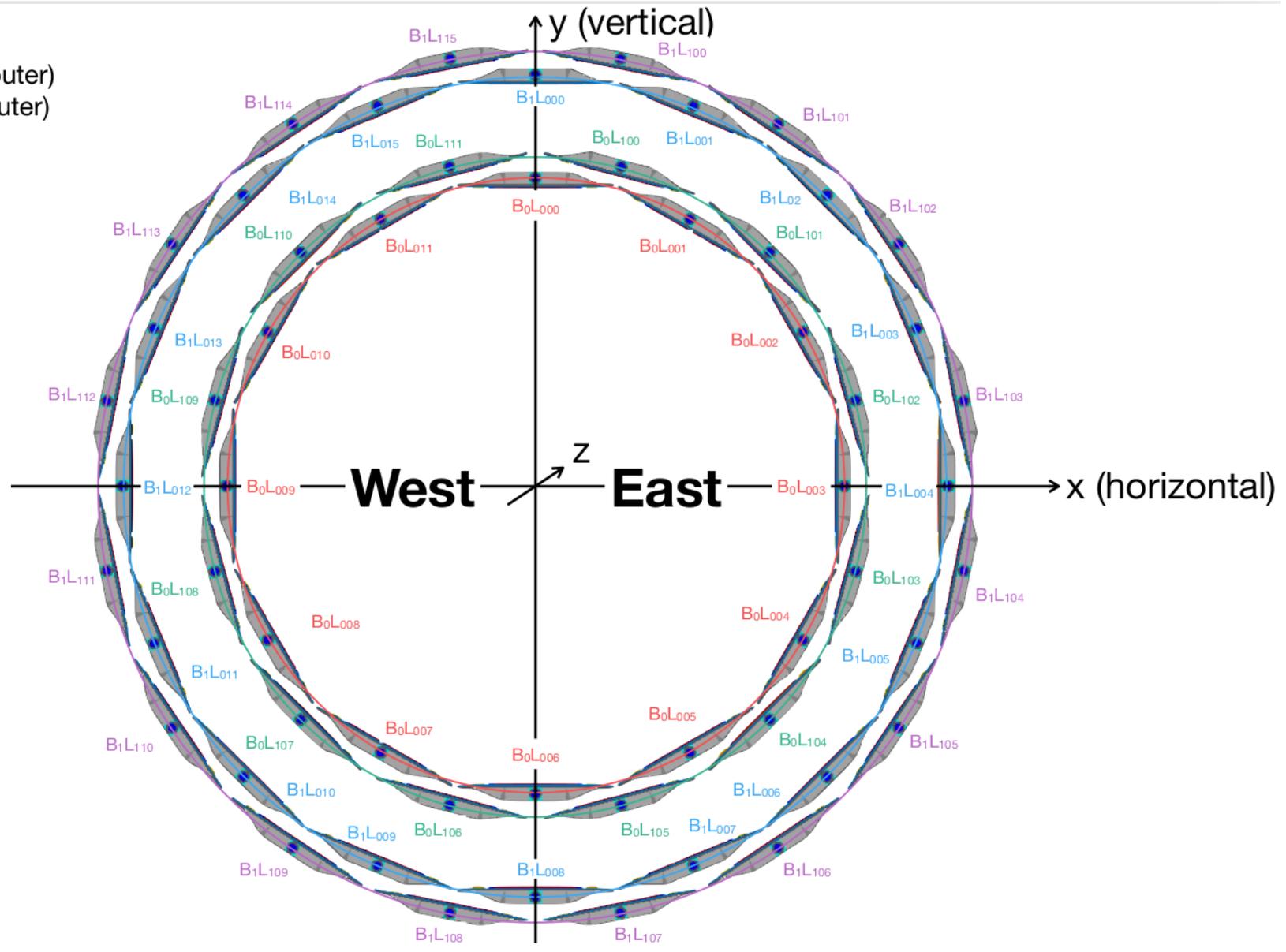
June 16th, 2022

CFC Support Structure for Barrels: Inner Part Assembled: done



Barrels Configuration in sPHENIX Geant

Notation: $B_xL_yz_z$
x: Barrel ID (0 for inner or 1 for outer)
y: Layer ID (0 for inner or 1 for outer)
zz: Ladder ID (from 0 to 15)



B0L0 Layer

Order Built	Name	Layer	South Leakage A+B	North Leakage A+B	Class	Number Dead	Average Current (S+N)/2	Source Test File
16	PB1-L010	1	420	440	1	10	430	1
19	PB1-L013	1	570	880	1	11	725	1
62	PB1-L031	1	254	233	1	12	244	1
23	PB1-L017	1	700	500	1	12	600	1
58	PB1-L027	1	240	228	1	14	234	1
12	PB1-L006	1	360	280	1	14	320	1
11	PB1-L005	1	440	510	1	14	475	1
51	PB1-L020	1	259	264	1	15	262	1
15	PB1-L009	1	440	850	1	15	645	1
65	PB1-L034	1	363	220	1	16	292	1
52	PB1-L021	1	311	284	1	16	298	1
14	PB1-L008	1	518	413	1	16	466	1
20	PB1-L014	1	500	500	1	16	500	1
54	PB1-L023	1	359	311	1	17	335	1
17	PB1-L011	1	330	490	1	17	410	1
59	PB1-L028	1	283	750	1	17	517	1
53	PB1-L022	1	482	552	1	17	517	1
63	PB1-L032	1	220	216	1	18	218	1
57	PB1-L026	1	277	348	1	18	313	1
21	PB1-L015	1	200	500	1	18	350	1
4	PB1_L001	1	330	340	1	20	335	1
22	PB1-L016	1	200	700	1	20	450	1
64	PB1-L033	1	253	567	1	21	410	1
60	PB1-L029	1	1181	413	1	21	797	1
55	PB1-L024	1	294	243	1	22	269	1
24	PB1-L018	1	200	300	1	24	250	1
18	PB1-L012	1	650	300	1	24	475	1
13	PB1-L007	1	270	490	1	25	380	1
56	PB1-L025	1	267	468	1	28	368	1
9	PB1-L004	1	320	290	1	33	305	1
50	PB1-L019	1	303	284	4	140	294	4
8	PB1_L003	1	420	300	4	149	360	4
6	PB1_L002	1	960	690	4	153	825	4
61	PB1-L030	1	20	20			20	

Used

Not Used

B0L0 Layer

INTT Layer 1a	Position	Ladder Name
EAST	BOL000	PB1-L008
	BOL001	PB1-L005
	BOL002	PB1-L031
	BOL003	PB1-L010
	BOL004	PB1-L027
	BOL005	PB1-L009
WEST	BOL006	PB1-L034
	BOL007	PB1-L020
	BOL008	PB1-L017
	BOL009	PB1-L013
	BOL010	PB1-L006
	BOL011	PB1-L021

Assembly Team: Starting the Assembly of First Layer B0L0





5900 N/S 19-0010-01E-502

205-310-0100-01 31/N 0085

6700 N/S 19-0010-01E-502

5100 N/S 10-2010-01E-502

EAST DETECTOR

B0L000S

B0L002S

B0L001S

B0L000S

B0L002N

B0L001N

B0L000N

No. 23

No. 25

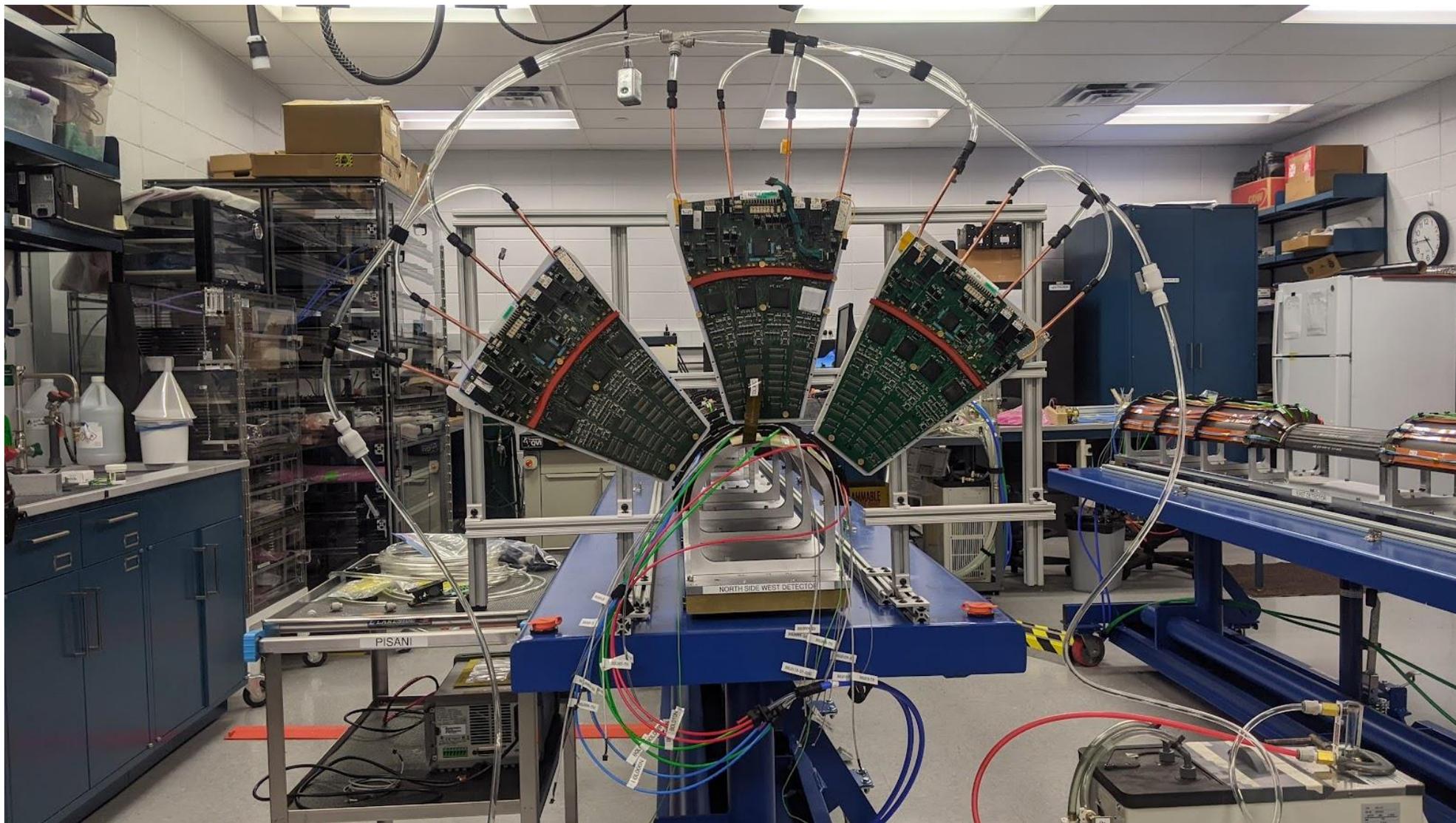
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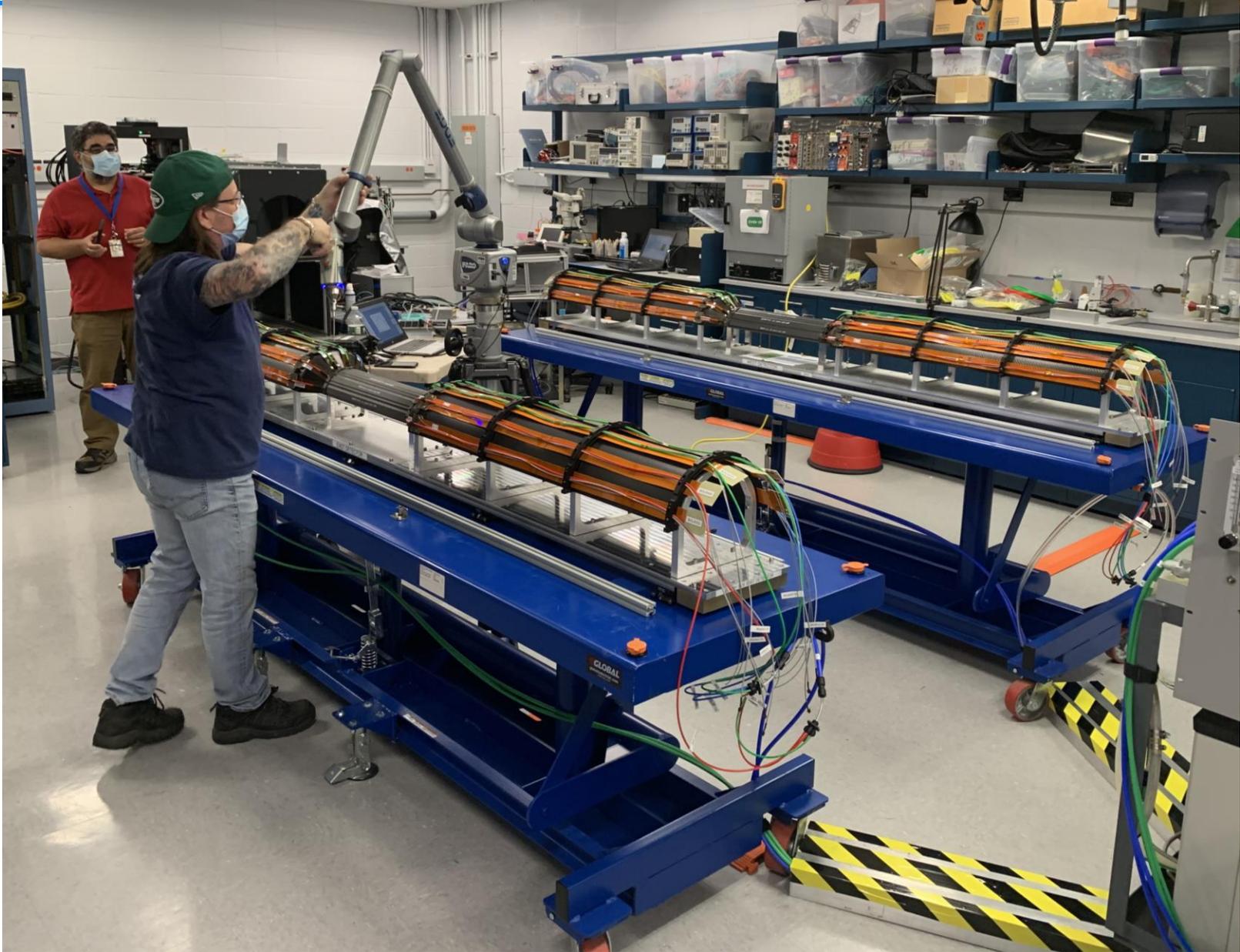


First Layer B0L0: Fully Assembled





First Layer B0L0: Fully Surveyed



Final Layer B0L0 Status

B0L1		Hardware Components					Calibration Test								Survey, Cooling, and Grounding						Final		
ID	ID	Ladder Position	Ladder Name	HDI South/North	BEX South/North	Conversion Cable S/N	South				North				Survey Status	GND Wire Stave	Glue TC Connector	Cooling Test	Silver Epoxy	Grounding Confirmed	Pulse Test	Barrel Status	
							Current SA/SB [nA]	TA/TB [Celsius]	File Name	Status	Current SA/SB [nA]	TA/TB [Celsius]	File Name	Status									
1	EAST	B0L000	PB1-L008	201/202	028/025		116/257	20.6/20.7	20220613-1616,	1	115/96	21.0/20.5	20220613-1338,	1	1	1	1	1	1	1			
2		B0L001	PB1-L005	038/039	026/023		115/89	20.5/20.8	20220613-1659,	1	112//100	20.5/20.3	20220613-1351,	1	1	1	1	1	1	1			
3		B0L002	PB1-L031	281/288	004/003		135/102	20.7/20.5	20220613-1546,	1	130/87	20.8/20.3	20220613-1215,	1	1	1	1	1	1	1			
4		B0L003	PB1-L013	217/218	018/019		150/90	24.0/25.0	20220613-1530	1	129/101	21.3/20.8	20220613-1157,6	1	1	1	1	1	1	1			
5		B0L004	PB1-L027	279/280	022/005		108/93	20.6/20.4	20220613-1715,	1	123/89	21.0/20.5	20220613-1325,	1	1	1	1	1	1	1			
6		B0L005	PB1-L009	199/200	024/021		122/88	19.3/19.4	20220613-1733,	1	125/86	21.1/20.7	20220613-1316,	1	1	1	1	1	1	1			
7	WEST	B0L006	PB1-L034	302/307	016/017		175/133	23.4/x	20220614-1217,	1	197/87	20.9/20.4	20220610-1158,6	1	1	1	1	1	1	1			
8		B0L007	PB1-L020	282/283	014/015		129/94	23.3/23.0	20220614-1142,	1	125/115	20.7/20.3	20220610-1127,6	1	1	1	1	1	1	1			
9		B0L008	PB1-L017	213/214	010/011		120/84	20.7/20.7	20220614-1050,	1	128/91	22.3/21.8	20220610-1012,5	1	1	1	1	1	1	1			
10		B0L009	PB1-L010	197/198	006/007		120/350	20.9/19.3	20220614-1027,	1	132/91	21.1/20.8	20220610-1025,5	1	1	1	1	1	1	1	1		
11		B0L010	PB1-L006	040/206	008/009		149/125	22.6/22.4	20220614-1134,	1	118/133	20.8/20.6	20220610-1041,	1	1	1	1	1	1	1	1		
12		B0L011	PB1-L021	284/285	012/013		132/93	21.2/21.0	20220614-1107,	1	118/105	20.9/20.5	20220610-1214,	1	1	1	1	1	1	1	1		



B0L1 Layer

Ladders of Barrels type #1: 1) Class, 2) Dead Channels, 3) Current, and 4) Source test



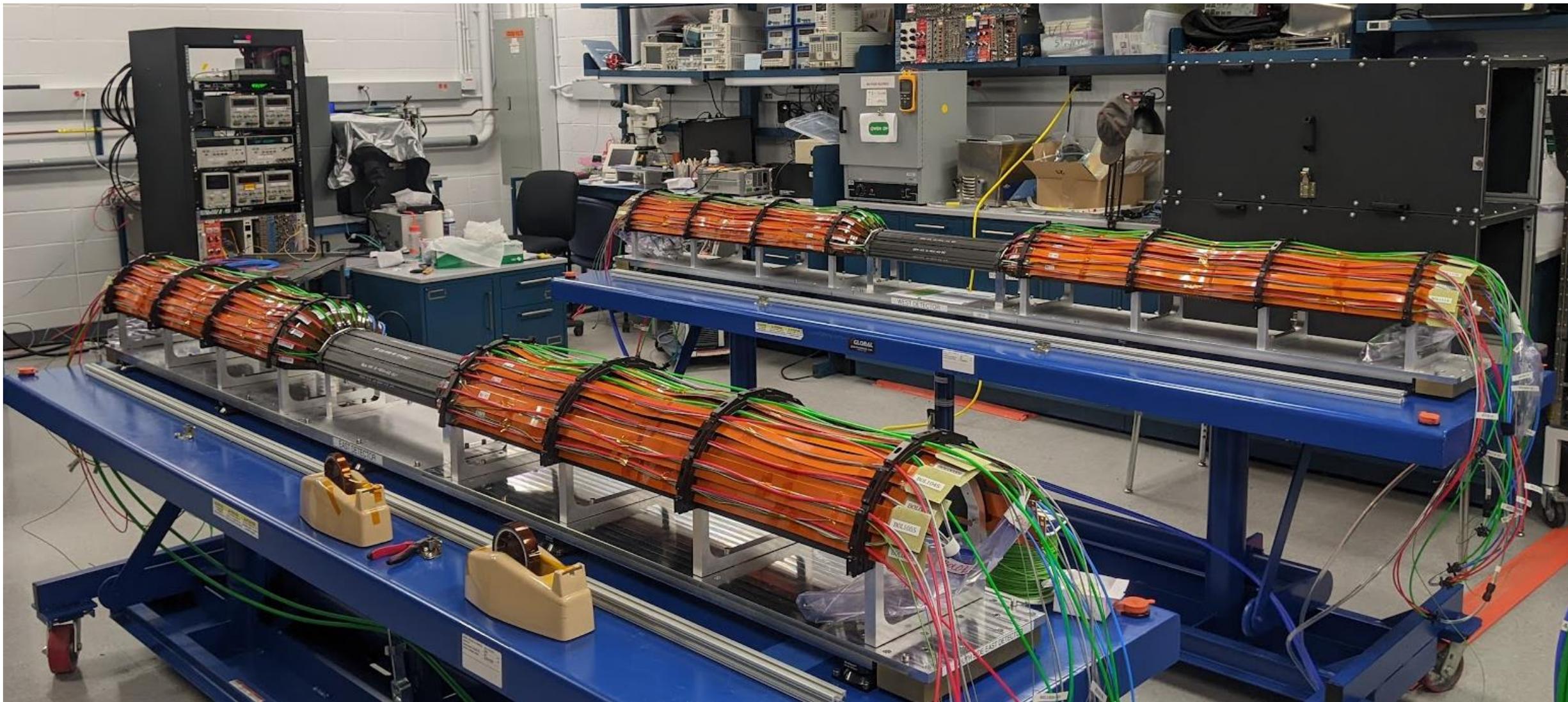
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Not Used

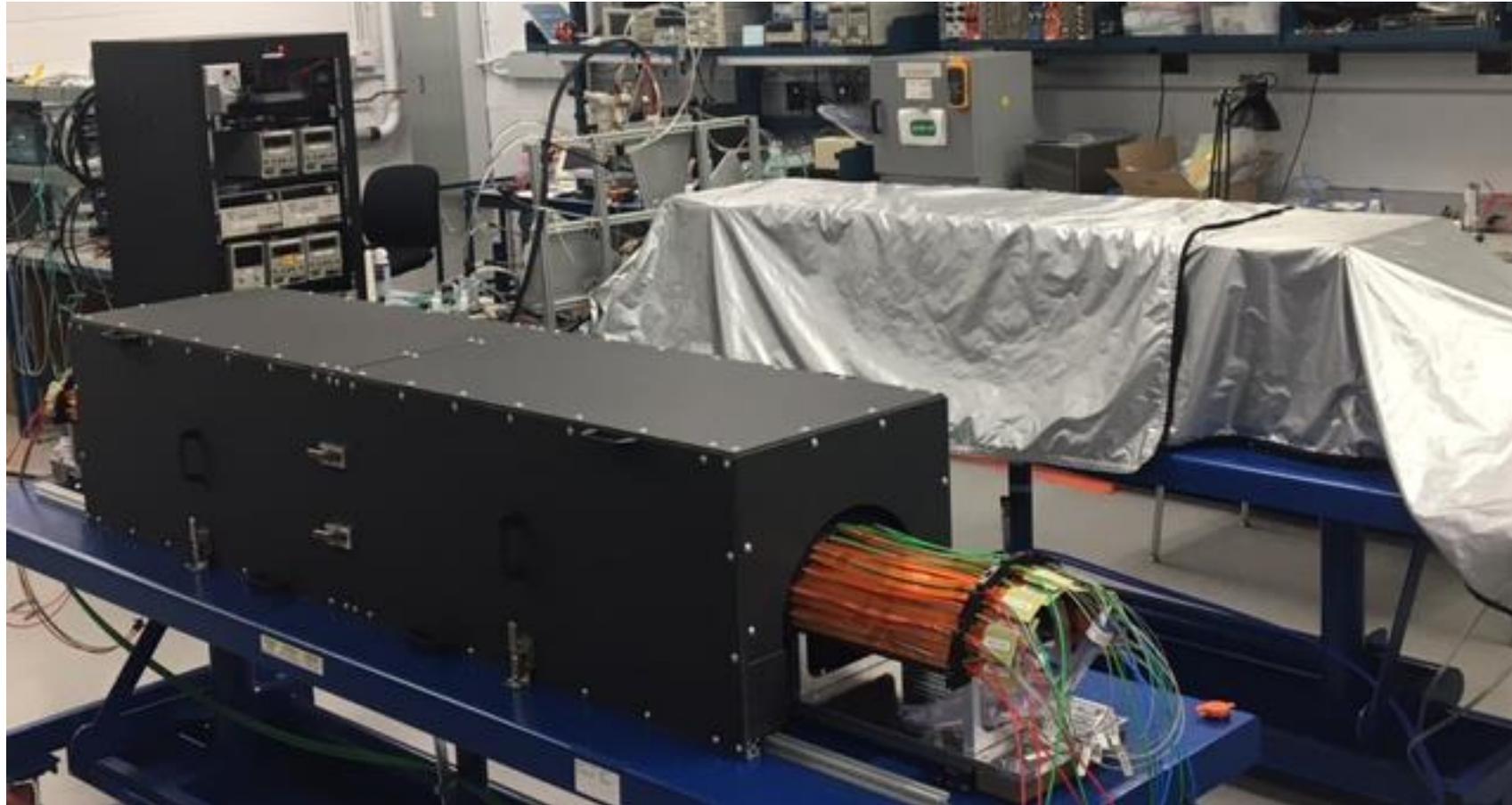
INTT Layer 1b	Position	Ladder Name
EAST	BOL100	PB1-L033
	BOL101	PB1-L026
	BOL102	PB1-L022
	BOL103	PB1-L014
	BOL104	PB1-L011
	BOL105	PB1-L001
WEST	BOL106	PB1-L016
	BOL107	PB1-L015
	BOL108	PB1-L032
	BOL109	PB1-L023
	BOL110	PB1-L028
	BOL111	PB1-L024

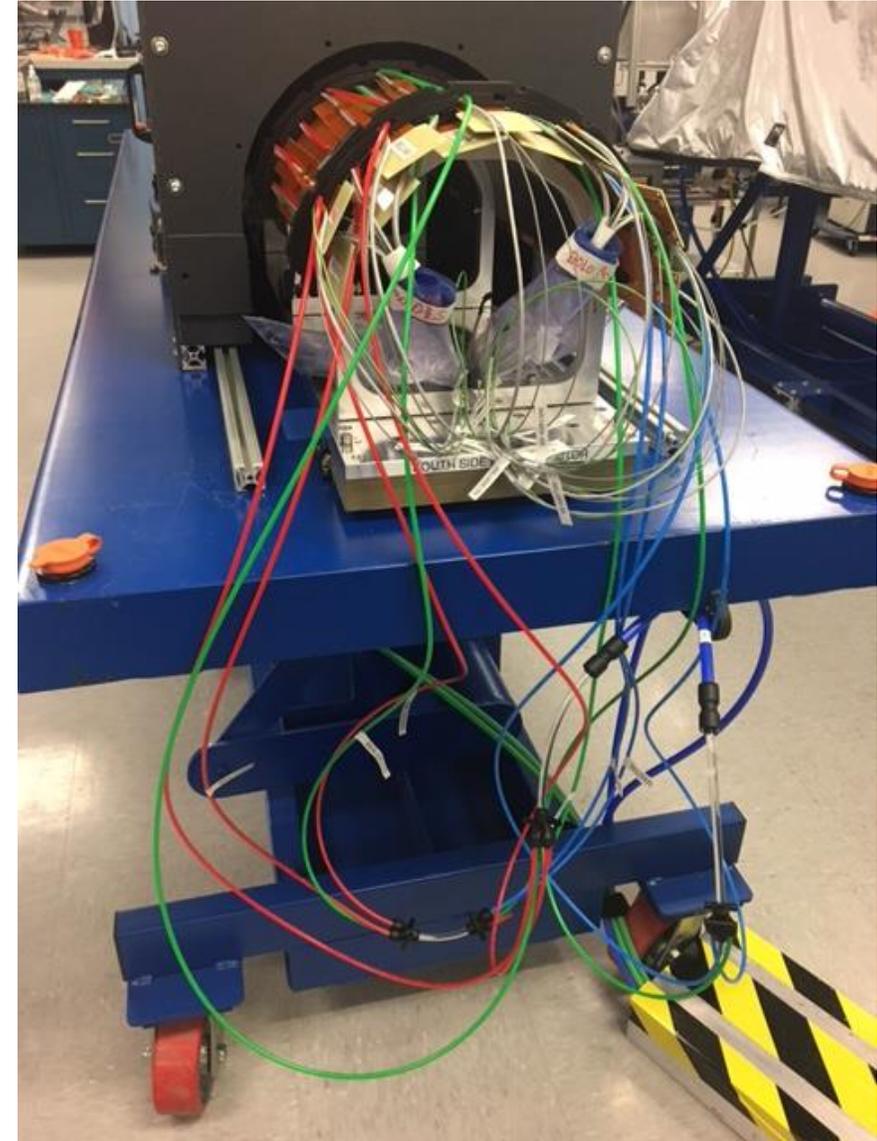
Second Layer B0L1: Fully Assembled



B0L1		Harware Componentents					Calibration Test								Survey, Cooling, and Grounding					Final		
ID	ID	Ladder Position	Ladder Name	HDI South/North	BEX South/North	Conversion Cable S/N	South				North				Survey Status	GND Wire Stave	Glue TC Connector	Cooling Test	Silver Epoxy	Grounding Confirmed	Pulse Test	Barrel Status
							Current SA/SB [nA]	TA/TB [Celsius]	File Name	Status	Current SA/SB [nA]	TA/TB [Celsius]	File Name	Status								
1	EAST	B0L100	PB1-L033		52/49																	
2		B0L101	PB1-L026		50/47																	
3		B0L102	PB1-L022		48/45																	
4		B0L103	PB1-L014		46/43																	
5		B0L104	PB1-L011		44/41																	
6		B0L105	PB1-L001		42/39																	
7	WEST	B0L106	PB1-L016		40/37																	
8		B0L107	PB1-L015		38/35																	
9		B0L108	PB1-L032		36/33																	
10		B0L109	PB1-L023		34/31																	
11		B0L110	PB1-L028		32/29																	
12		B0L111	PB1-L024		30/27																	

- Testing of B0L1: started on June 16th, 2022, and it will be done on June 22nd.
- Survey of B0L1: Friday June 17th , 2022





- We don't have enough **Bus Extender Cables (BEC)** to finish all barrels and I am concern to lose the survey team to another BNL project (they are in high demand);
"hard to schedule them for INTT"
 - BEC available: 54
 - BEC used (B0L0, B0L1): 48
- $54 - 48 = 8$ only (not enough)