Technical Design of Solenoid, TPC prototype, and DAQ for LAMPS

Hyo Sang Lee and Jung Keun Ahn

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Superconducting Solenoid

- LHe chamber supports SC coils instead of a bobbin structure.

- A couple of SC coil rings for practical fabrication and operation.

- Now 3D B field calculation is underway.

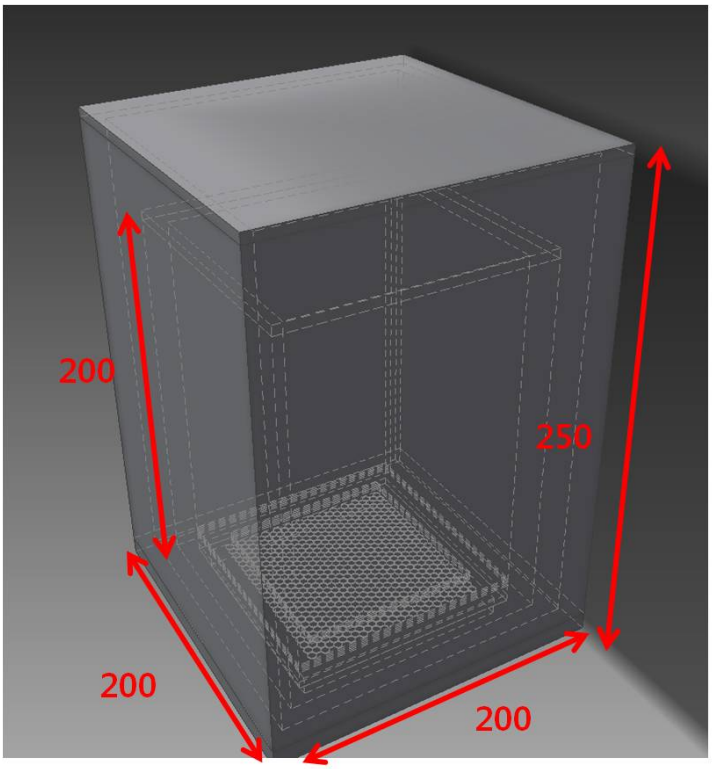
TPC prototype

- A small TPC prototype with a hexagonal pad configuration.

- 10×10 cm^2 pad area and 20 cm long drift distance

- 1 AsAd module + adaptor card + ML507 (reduced GET) from IBS

- 15,000 KWon for chamber itself + gas / HV systems.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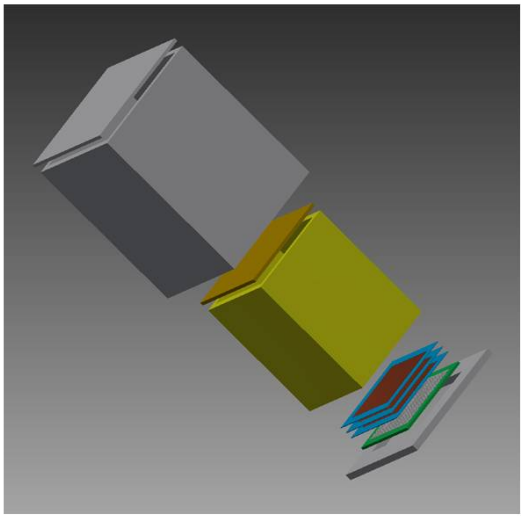

Data Aquisition System

- DAQ prototype for the multi-detector system (CsI, plastic, chamber)
- subDAQ (collector) systems through TCP/IP.
- mainDAQ (event builder, online monitor)
- 1st-level trigger

Compilation of the Budget

	unit price(KWon)	qnty	price (KWon)
DAQ computer	600	4	2,400
DAQ server	1,000	1	1,000
High-speed PC	1,000	1	1,000
Prog Logic Unit	5,000(?)	1	

Purchase Request

module	model	qnty	price (KWon)
NIM bin		1	
Fan In/Out			
Discriminator			
Logic			
Gate Generator			
VME Crate	VME8100	1	
VME CC	V1718	1	
ADC	V792 (32-ch)	2	
TDC*	V1290A-2eSST	4	40,000
IO register	V977 (16-ch)	2	

* CAEN 32-ch multihit TDC (25ps)