

DCH: Decisions needed for the TDR

1. Mechanical structure

- Material
- Shape

2. Cell Geometry

3. Gas Mixture

4. FE Electronics

DCH: Decisions needed for the TDR

1. Mechanical structure

- Material
- Shape

- Baseline

- Carbon Fiber
- Spherical end-plates
 - Alternative: spherical+conical

- To Do

- Finalize requirements
- Make detailed calculations and technical design

- Manpower

- Physicists, Mechanical Engineers

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2. Cell Geometry

- Baseline

- Hex. cell a la *BABAR*, 2cm side

- ✓ Alternatives

- hex. cell, smaller size
- at least for inner layers
- Square cell a la KLOE/CLEO-c
- All-stereo layers/superlayers

- To do

- Simulation
- Prototypes

- Manpower

- Physicists, Technicians, Electronic Engineers

DCH: Decisions needed for the TDR

3. Gas Mixture

- Baseline

- *BABAR* gas

- ✓ Alternative

- faster mixture

- To do

- Garfield simulations

- Prototypes

- Manpower

- Physicists, Technicians, Electronic Engineers

DCH: Decisions needed for the TDR

4. FE Electronics

- Baseline
 - *BABAR* concept, with state-of-the-art components
 - ✓ Alternative
 - to be evaluated
 - cluster counting?
- To do
 - Simulations
 - Understand requirements, design new system
- Manpower
 - Physicists, Electronic Engineers

Goals for this Meeting

- Assess status of manpower
 - New Canadian institutions
- Define list of tasks needed for the TDR
 - Simulations
 - FAST for performance on benchmark channels
 - FULL for background studies
 - Magboltz/Garfield for gas mixture simulation
 - Detector-related R&D
 - Mechanical quenching
 - Optimizations
 - Cell geometry
 - Gas mixture
 - Mechanical Engineering
 - Electronics

