

Subgroups

Vertex

- Define Geometry and a Structure which includes weight, size, dead space, dead material, cracks
- Define a Support scheme which includes beam pipe and exoskeleton
- Determine Utilities need to be brought in and out.
- First Order Deflection/stress analysis
- Present to SiD Colaboration
- Finalize and supply input to Simulation
- Iterate Design and finalize for LOI
- First Order design of any Utilities/services needed
- Perform a rough Cost Analysis
- Write LOI section

SiliconTracker

- Define Geometry and a Structure which includes weight, size, dead space, dead material, cracks

Define a Support scheme
Determine Utilities need to be brought in and out.
First Order Deflection/stress analysis
Present to SiD Colaboration
Finalize and supply input to Simulation
Iterate Design and finalize for LOI
First Order design of any Utilities/services needed
Perform a rough Cost Analysis
Write LOI section

Ecal

Define Geometry and a Structure which includes weight, size, cracks
Define a Support scheme
Determine Utilities need to be brought in and out.
First Order Deflection/stress analysis
Present to SiD Colaboration
Finalize and supply input to Simulation
Iterate Design and finalize for LOI
First Order design of any Utilities/services needed
Perform a rough Cost Analysis
Write LOI section

Hcal

Define Geometry and a Structure for radiator plates which includes weight, size, cracks
Define a Support scheme
First Order Deflection/stress analysis
Present to SiD Colaboration
Finalize and supply input to Simulation
Iterate Design and finalize for LOI
Perform a rough Cost Analysis
Write LOI section
Examine different Technologies for Detector Modules
Determine Utilities need to be brought in and out.
First Order Deflection/stress analysis
First Order design of any Utilities/services needed
Present to SiD Colaboration
Finalize and supply input to Simulation
Iterate Design and finalize one technology for LOI
First Order design of any Utilities/services needed
Perform a rough Cost Analysis
Write LOI section

Solenoid

Define Geometry and a Structure which includes weight, size, magnetic field
Understand and define the DID
Define a Support scheme

Determine Utilities need to be brought in and out.
First Order Deflection/stress analysis
Define Power Supply and Quench circuit
Present to SiD Colaboration
Finalize and supply input to Simulation including different fields
Iterate Design and finalize for LOI
First Order design of any Utilities/services needed
Perform a rough Cost Analysis
Write LOI section

Muon

Define Geometry and a Structure which includes weight, size, cracks, magnetic fringe fields
Define a Support scheme
Determine Utilities need to be brought in and out.
First Order Deflection/stress analysis
Present to SiD Colaboration
Finalize and supply input to Simulation
Iterate Design and finalize for LOI
First Order design of any Utilities/services needed
Perform a rough Cost Analysis
Write LOI section

Forward

Define Geometry and a Structure which includes weight, size, dead space, dead material, cracks
Define geometry of the Beam pipe
Define a Support scheme (Both beam pipe and detector)
Determine Utilities need to be brought in and out.
First Order Deflection/stress analysis
Present to SiD Colaboration
Finalize and supply input to Simulation
Iterate Design and finalize for LOI
First Order design of any Utilities/services needed
Perform a rough Cost Analysis
Write LOI section

IR Hall

Define Hall Geometry and Shaft size needed
Define Cranes and other Hall Utilities required
Define Motion system (Hilman rollers, etc)
Define Self Shielding Detector including Pacman system
Define QD0 Support and understand vibration issues
Understand QD0 cryogenic issues
Understand Push-Pull issues
Define ventilation and enivronmental requirements
Define utilities need to be brought in and out

First Order Design of utilities flex lines

Overall Assembly

Define Assembly Strategy

Define Cable Paths

Define Utility Platforms