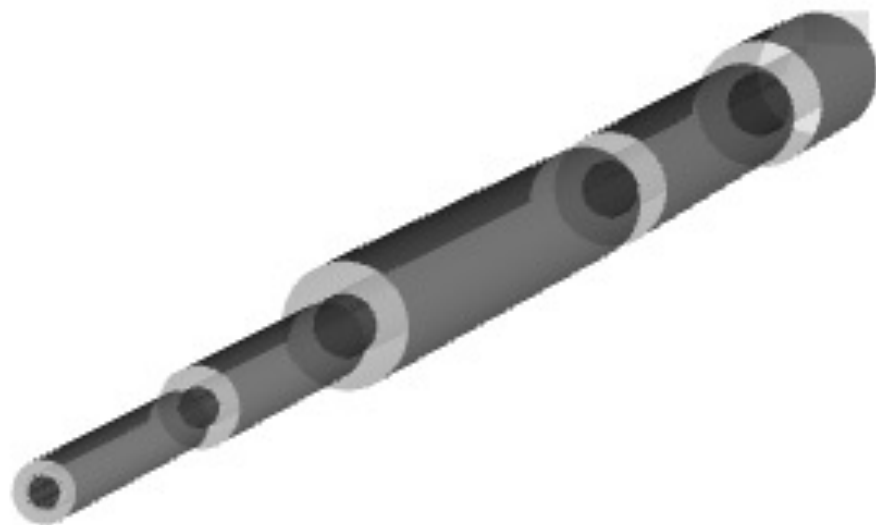
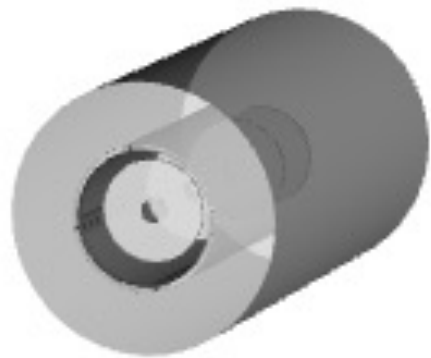


Far-Forward Integration Update

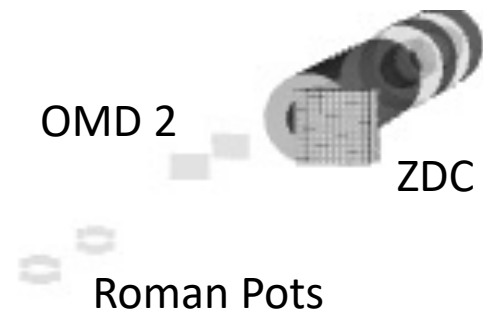
Alex and John

July 8th, 2021

Corrected B0pf magnet.



OMD 1



OMD 2

Roman Pots

ZDC

Where things stand

- Most detectors now included in the DD4HEP simulations.
 - Will finish updating locations/sizes/etc. today (really only the B0 tracker is missing).
 - Need to review the ZDC implementation by Jihee.
- Tracking and reco.
 - Need to add transfer matrices for tracking in RP – this can also be done in an analysis code.
 - Need to add tracking for the B0 detector.
- Faux beam pipe under construction.
 - Need to work a bit to ensure the detectors which are inserted into beam line have something realistic around them.
 - Need to add electron components in the B0pf bore to estimate space.
 - This magnet is still being iterated on, but we can have something reasonable to give people an idea of how it will work.
- I will check all beam line magnets for proper placement.
- Need to begin some particle gun studies to test basic acceptances and compare to EICROOT for validation.
 - The nice thing is that the two frameworks are completely independent so it makes validation a bit easier to check.
- We will be working on adjusting the beamline to use the “correct” coordinate system.

What engineering is needed?

- The FF region has been developed in tandem with the machine group since the beginning.
 - It is well known that there is need for vacuum system design and integration.
- The B0pf magnet is still being modified, so a detailed detector engineering design is not feasible still, only some basic assumptions of *how* things will be implemented.