

Phase II Geometry

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Goal

Design Phase II System Test detector geometries for use in simulations.

Plan

1. Study Phase I and LZ geometries
 - a. Find reusable files
2. Design simplified geometry
 - a. Test for basic functionality
3. Increase complexity of geometry
 - a. Add optical surfaces
 - b. Add PMT's
 - c. Other features
4. Work towards final Phase II geometry
 - a. More components, most realistic
5. Work on macros for Phase II

Done Last Week:

- Finished simplified geometry for a gaseous xenon filled detector
- Simulated 500 e- within the gaseous xenon space
 - All signs point to it generating valid output
- Attempt at visualization: simulated 5000 e- within the gaseous xenon space
 - Currently running visualization analysis code on the .root file

To do This Week:

- Work on code for analyzing energy depositions to confirm the detector is working as expected
 - May need to learn more C++
- Work on analysis code for simple visualization
- Push for better visualizer methods

Simplified Geometry

