

nEXO Guide Tube Presentation

Monday 15 August 2022 16:39 (12 minutes)

This presentation will cover all large projects, experiments, and research that I have completed throughout the entire summer. I will introduce the transition which includes a summary on previous summer student contributions to the same project, how I have continued the work, and made some changes to adapt to the situation at hand and make it my own of the guide tube design. Before construction of the guide tube, I completed an experiment, named “The Force Test” to attempt to determine the frictional forces acting between the copper guide tube and source cable. The results and future plans will be shared. The next topic is the creation and arrangement of the guide tube structure. A wooden frame was built to outline and hold the tubing, the planning and construction process will be delved into. The preparation, as well as the process of tube bending for the design will be explained, plus hardware used to secure the tubing to the wooden structure. Next, I will mention how the wooden structure plus tubing was moved and supported within D-140. The prototyping results from moving the source cable through the copper guide tubing design will be shared and will be the final piece discussed.

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