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Ultra-low Background Ge Counter Abstract FADY NAKHLA, Univ of California - Berkeley, JORDAN MYSLIK, ALAN POON, Lawrence Berkeley National Laboratory — The purpose of this project is to design a new ultra-low radioactive background germanium (Ge) counter using the MAJORANA low-mass front-end (LMFE), the lowest background Ge front-end readout electronics in the world. Sensitive Ge counters for radioactivity assays are important for the design and construction of next generation underground experiments. We are building a prototype cryostat for testing the hardware compatibility and electronics performance of the LMFE that will be modified for this assay spectrometer. This poster will discuss the general design of the prototype cryostat, specifically my contributions in designing the mounting hardware for the Ge crystal and involvement with the setup of the testing system.

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