## Abstract Submitted for the SES16 Meeting of The American Physical Society

Development of a Prototype Calorimeter for Hall D at JLab¹ JOSHUA CRAFTS², KEVIN COSNAHAN³, University of North Carolina Wilmington, GLUEX COLLABORATION — Future forward calorimeter upgrade (FCAL-II) in Hall D at JLab will replace the existing lead glass counters in the central region of the calorimeter with high granularity, high resolution and radiation resistance PWO crystal counters. Two issues are important for this project. The first one is the magnetic shielding on the photo multipliers (PMT) since the FCAL-II will work in the fringe field of a superconducting magnet (at level of ~60 Gauss). The second issue is the high rate for the counters near a high intensity photon beam. As undergraduate students, we worked two months at JLab during summer 2016. We took major responsibility to study the magnetic effect on the Hamamatsu 4125 HA PMT and to develop a passive magnetic shielding with mu-metal. We also involved in developing a small prototype calorimeter for a beam test in the fall 2016. We will present the status and some results of these activities.

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