Abstract Submitted
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The GlueX Start Counter ERIC POOSER, Florida International University, GLUEX COLLABORATION — The GlueX experiment will be one of the largest photo-production facilities in the world and is currently under construction. This experiment will use the coherent bremsstrahlung technique to produce a 9 GeV linearly polarized photon beam incident on a liquid H_2 target. A Start Counter detector has been designed to identify the accelerator electron beam buckets, approximately 2 ns apart, and to provide accurate timing information. It is now under construction at Florida International University (FIU). This detector is designed to operate at photon intensities of up to $10^8\gamma$/s in the coherent peak. It consists of an array of 30 individual scintillators with "pointed" ends that bend toward the beam at the downstream end. SiPM detectors, which comprise the readout system, are placed as close as possible at the end of each scintillator. The EJ-200 scintillator is best suited for the timing studies with a fast decay time of 2.0 ns. The physical properties of the scintillators, configured to the desired geometry, have been studied extensively at FIU. Geant4 simulations are currently underway to replicate and to understand our experimental results. The results of these timing studies and simulations are discussed.

Eric Pooser
Florida International University

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