

Abstract Submitted  
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**The GlueX Start Counter**<sup>1</sup> ERIC POOSER, Florida Intl Univ, GLUEX COLLABORATION — The GlueX experiment will study meson photoproduction with unprecedented precision. This experiment will use the coherent bremsstrahlung technique to produce a 9 GeV linearly polarized photon beam incident on a liquid H<sub>2</sub> target. A Start Counter detector has been fabricated to identify the accelerator electron beam buckets, approximately 2 ns apart, and to provide accurate timing information which is used in the level-1 trigger of the experiment. This detector is designed to operate at photon intensities of up to  $10^8 \gamma/s$  in the coherent peak and provide a timing resolution  $< 350$  ps so as to provide successful identification of the electron beam buckets to within 99% accuracy. Furthermore, the Start Counter detector will provide excellent solid angle coverage,  $\sim 90\%$  of  $4\pi$  hermeticity, and a high degree of segmentation for background rejection. It consists of a cylindrical array of 30 scintillators with pointed ends that bend towards the beam at the downstream end. Silicon PhotoMultiplier (SiPM) detectors have been selected as the readout system. The physical properties of the Start Counter have been studied extensively. The results of these studies are discussed.

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