

Abstract Submitted  
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**Crystal Ball Replica**<sup>1</sup> JOHN AJAMIAN<sup>2</sup>, George Washington University, Montgomery College — The A2 collaboration of the Institute for Nuclear Physics of Johannes Gutenberg University performs research on (multiple) meson photoproduction and nucleon structure and dynamics using a high energy polarized photon beam at specific targets. Particles scattered from the target are detected in the Crystal Ball, or CB. The CB is composed of 672 NaI crystals that surround the target and can analyze particle type and energy of ejected particles. Our project was to create a replica of the CB that could display what was happening in real time on a 3 Dimensional scale replica. Our replica was constructed to help explain the physics to the general public, be used as a tool when calibrating each of the 672 NaI crystals, and to better analyze the electron showering of particles coming from the target. This poster will focus on the hardware steps necessary to construct the replica and wire the 672 programmable LEDs in such a way that they can be mapped to correspond to the Crystal Ball elements.

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