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Towards Implementing Multi-Pixel Photon Counters as Light Detectors for Cosmic Rays JAIME VASQUEZ, ARTHUR SAAVEDRA, ROXANA RAMOS, PABLO TAVARES, MARCUS WADE, SEWAN FAN, BROOKE HAAG, Hartnell College — There has been tremendous effort in recent years to implement multi-pixel photon counters (MPPC) in diverse areas of particle physics and positron emission tomography. The MPPC detectors possess certain favorable properties such as fast response time, high sensitivity to weak light signals, compact size, low operating voltage, and lower cost compared to photomultiplier tubes. However, constructing a working MPPC detector assembly is not a unique process; there are various working setups. In this poster, we present our particular experimental setup for a working MPPC detector assembly. In particular, we describe our efforts to implement the MPPC as a readout detector to be coupled to wavelength shifting fibers that are implanted within plastic scintillators for the measurement of cosmic rays.

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