

Abstract Submitted
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Muon Detection with the Cosmic Watch Muon Detector.¹ JUSTIN TRULL, Texas AM UniversityCorpus Christi — Muon detection is not a necessarily new concept, and they have been studied quite extensively since their discovery in 1935. Today, significant advancements have been made when it comes to the detection of muons. High accuracy detectors have been created to observe both natural and man-made accelerator phenomena. These more modern particle detectors tend to be highly powered, large, and rather expensive; however, another form of detector has been created based on the common principles of muon detection utilizing scintillators. These are the portable muon detectors. As we continue with observations on the muon, there becomes a greater need to study the particles in more precarious situations. These situations are based on several parameters which can affect the count rate of a particle detector. Parameters such as elevation and weather patterns should be observed. This is rather difficult with an instrument that cannot travel due to size, power consumption, or both. Therefore, the use of a portable detector can be justifiable. This instrument was originally created for the purpose of short High School and Undergraduate research projects; however, modifications to the instrument can be made to explore more advanced, long-term, research projects.

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