COSMIC WATCH MUON DETECTOR

ANDROID APPLICATION FOR MUON DETECTOR PERIPHERAL

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**Abstract:** Often, scientific instruments are difficult to transport or use. By miniaturizing the instrument and streamlining the interface, experiments can be more easily done. The MIT ‘household level’ muon detector is already miniaturized, but it requires a PC to provide power and log detection events, thus it remains difficult to use and transport. By creating an android application to interface with the detector, the PC can be substituted with an android phone, which further presents a streamlined user interface and real-time observation of detection events. As a proof of concept, two experiments were conducted – the first on the impact of time of day on detection counts, the second on varying heights and locations. The application will allow the detector to be deployed anywhere, under varying circumstances, and become easy enough to use, such as under high school experiment conditions.