

# Cosmic Watch based detector array - measurements and simulations

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Creating a perfect cosmic ray detector for the purpose of CREDO is a task that has been undertaken not once in the past by projects like CosmicPi, CREDO-Maze or Astro-tectonic. Diversity of used detectors can become an advantage in the search of new cosmic ray related phenomena but it requires a good understanding of used devices. We would like to present our proposition of a device that should be affordable by most educational institutions or even some committed individuals, at the same time being able to measure cosmic ray flux and observe Extensive Air Showers (EAS). We believe that this sort of equipment could become an important part of future CREDO related data collection system, as they should be able to collect data directly to the server for months without interruption. However, before distribution of such we have to understand all their properties and problems that may occur during operation. In order to do so, we performed simulations of our detectors in interaction with most numerous cosmic ray particles in different conditions. We would also like to present results of first measurements and discuss prospects for future development of our project.

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