

The LArIAT Light Readout System

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Most neutrino experiments using liquid argon as a detector medium focus on obtaining information about the interaction from ionization electrons and choose to use the scintillation light as a trigger or an indication of interaction time. On the other hand, experiments investigating lower energy ranges, i.e. Dark Matter searches have shown that there is a wealth of information in the scintillation light, which by itself allows calorimetric reconstruction and particle identification based on the shape of the light signal. LArIAT is an experiment set to calibrate the LAr Time Projection Chamber technology by placing the detector on a beam of charged particles of known type and momentum. One of its goals is to test a Dark Matter search-like light collection system, which could supplement the calorimetric and particle identification capabilities of the LArTPC. The plans to implement this setup in the LArIAT detector will be presented as well as a test set up being constructed to test the components.

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