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DUNE near detector 2x2 prototype

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The Deep Underground Neutrino Experiment (DUNE) is a next-generation neutrino oscillation experiment currently under construction in the United States. The far detector site (at SURF) and near detector site (at Fermilab) are separated by a baseline of 1300 km. At the near detector site, a liquid argon detector (ND-LAr) with 70 optically separated time projection chambers (TPCs) will be constructed. The modular design required the development of new technologies such as a pixelated charge readout and large-area light detectors. A prototype for ND-LAr, with four modules in a 2x2 arrangement, is being installed in the NuMI beam at Fermilab between repurposed MINERvA trackers. This prototype will soon start taking DUNE's first neutrino beam data, and study neutrino-Argon interactions in the few-GeV regime.

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