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QPIX, a novel pixel technology for very large noble element detectors

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A large pixelated liquid argon detector could offer great advantages in studying neutrinos. The 3D imaging capabilities of such a detector could enhance and expand the physics reach of future large-scale detectors such as DUNE. We will present the current status of the Q-Pix development. This novel concept uses continuously integrating low-power charge-sensitive chips that sends signals once the accumulated charge has reached a certain threshold. The time differences between these signals provide a powerful tool to study events from a wide range of energies. After reviewing the Q-Pix concept, we will discuss the recent developments in producing and testing the Q-Pix chips.

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