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## Advancements in KM3NeT Acquisition Electronics: Current Status and Upgrades

The KM3NeT Collaboration is constructing and managing two deep-sea neutrino telescopes on the Mediterranean Sea floor. These telescopes are composed of networks of light detectors enclosed in pressure-resistant glass spheres, known as digital optical modules. Each module contains 31 photomultipliers, each with a 3-inch diameter, along with acquisition electronics. The detection units consist of vertical strings where these digital optical modules are mounted. In the initial construction phase, several dozen detection units were manufactured incorporating over 20,000 photomultipliers that are actively collecting data. Upon completion, the telescopes will feature more than ten thousand digital optical modules synchronized at the level of the nanosecond, forming one of the most intricate operational and synchronized networks globally. This work provides an update on the current status of the Digital Optical Module and DU Base acquisition electronics, highlighting upgrades to key components, such as the central logic board and the base module backplane.

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