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The monitoring of environmental conditions for SeaQuest[1] ZHAOJIA XI, Abilene Christian University, SEAQUEST/E906(FERMILAB) COLLABORATION — The SeaQuest/E906 experiment uses the 120 GeV Main Injector at Fermi National Accelerator Lab (FNAL) is to measure the quark and antiquark structure of the nucleon using Drell-Yan scattering. The spectrometer acceptance emphasizes valence quarks in the beam protons annihilating with anti-quarks in the hydrogen, deuterium and heavy nuclear targets. The SeaQuest spectrometer was built in the New Muon 4 (NM4) Hall, which can have 5-7 degrees C temperature gradients and humidity gradients between the bottom and top of the detectors.These gradients can affect detector performance. Thus conditions in the NM4 area such as pressure, humidity and temperature need to be monitored since they can impact detector performance and high voltage leakage currents. The system developed to record these data has the capability to be checked independently of the rest of the slow control system, allowing for studies independent of the main data acquisition system. The setup, programming, and expandability of this system will be presented.

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