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# **Low-Background Monitoring Cameras for the Daya Bay Antineutrino Detectors**

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(Submitted on 16 Apr 2012)

The Daya Bay Reactor Neutrino Experiment is designed to measure the neutrino mixing angle theta13 to world-leading precision. The experiment deploys identical antineutrino detectors at distances of 400-1900m from six reactors in Daya Bay, China. Each detector incorporates two generalpurpose monitoring cameras to ensure their safe construction, transportation and operation. The cameras must meet usage goals while satisfying stringent constraints on radioactivity, materials compatibility, interference and reliability. This article describes the system design, integration, operation and performance.

Comments: 16 pages, 14 figures

Subjects: Instrumentation and Detectors (physics.ins-det); High Energy Physics -

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