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The Mobile Antineutrino Demonstrator Project

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The Mobile Antineutrino Demonstrator project aims to construct a realistically deployable antineutrino detection system that can operate at essentially any reactor facility with no infrastructure support beyond electrical power. Through engagement with potential end-users and host facilities, this effort will advance the technical readiness of neutrino-based reactor monitoring concepts by enabling operationally relevant demonstrations. The project is motivated by recent technology development that enables antineutrino detectors to operate at the earth's surface and the results of the Nu Tools study which provided new insight into the utility of antineutrino measurements for current and foreseen nuclear security challenges. In this poster we will describe the mobile system design, selected antineutrino detector technologies, and measurement plans for the mobile system.

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