

# The WAGASCI-BabyMIND detector of the upgraded T2K experiment

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The T2K experiment has worked for over a decade using ND280 as its near detector. In recent years, T2K has been upgraded to increase its beam power, upgrade ND280 and install a second near detector: WAGASCI-BabyMIND (WGBM). WGBM is composed of both plastic and water segmented trackers and muon range detectors, including the BabyMIND magnetized detector. WGBM is located beneath ND280, and is exposed to a different off-axis angle, thus being subjected to a significantly different neutrino energy spectrum. The presence of both plastic and water in ND280 and WGBM, combined with the different energy flux, provides an additional handle on the flux and cross-section modeling uncertainties, thereby increasing the sensitivity of T2K in its neutrino oscillation measurements. This poster describes the WGBM detector, the status of its ongoing physics measurements, and its expected role in the upgraded T2K experiment.

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