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LIGO A[#]: Post-O5 plans for LIGO

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The LSC plans on upgrading the current LIGO detectors to a detector known as A[#] after the conclusion of the fifth observing run. A[#] includes an increase of the test mass mass to 100 kg, 10 dB of frequency dependent squeezing, an increase in the arm power to 1.5 MW, redesigned suspensions, a reduction in the coating Brownian noise by a factor of two, improved seismic isolation, and suppression of Newtonian noise from Rayleigh waves. All of the upgrades planned for A[#] are required R&D efforts for Cosmic Explorer.

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