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Mirror coating test facility - cryogenic technology

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The purpose of the cryogenic system of the mirror coating test facility is to keep the mirror samples at constant low temperature for optical measurements. Unlike the Einstein Telescope and Pathfinder, the system will not operate continuously. Discontinuous operation allows us to use a standard mechanical cryocooler along with energy storage. During measurements, the cryocooler is switched off to prevent coupling of vibrations. Stored energy is used to keep the mirror at the desired temperature. We will present an overview of the cryogenic system and indicate how we aim to optimize this system for measurements of roughly half an hour and a short regeneration time.

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