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Alignment activities for the LCLSII and LCLSII-HE projects at SLAC

The LCLS-II (Linac Coherent Light Source II) project is an upgrade to the world's first hard X-ray free-electron laser moving from 120 pulses per second to 1 million pulses per second. The LCLSII project includes a new 700 m long superconducting Linac, 3 km of beam transport lines, a new beam switch area to switch between the superconducting beam source and the Cu beam source, 2 new undulators and 4 new experimental hutches. We installed and mapped a new monument-based network in 3km of tunnels, aligned stands and components in the warm sections and the gun area. Supported the development of undulators with interferometer and autocollimator measurements, fiducialized undulators, magnets and other beam components and monitored floor movements for the new experimental hutches.

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