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The Dark Energy Survey Camera (DECam)

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The Dark Energy Survey (DES) is a next generation optical survey aimed at understanding the expansion rate of the universe using four complementary methods: weak gravitational lensing, galaxy cluster counts, baryon acoustic oscillations, and Type Ia supernovae. To perform the survey, the DES Collaboration is building the Dark Energy Camera (DECam), a 3 square degree, 570 Megapixel CCD camera that will be mounted at the prime focus of the Blanco 4-meter telescope at the Cerro Tololo Inter-American Observatory. CCD production has finished, yielding roughly twice the required 62 2kx4k detectors. The construction of DECam is nearly finished. Integration and commissioning on a "telescope simulator" of the major hardware and software components, except for the optics, recently concluded at Fermilab. Final assembly of the optical corrector has started at University College, London. Some components have already been received at CTIO. "First-light" will be in December 2011. This oral presentation will concentrate on the technical challenges involved in building DECam (and how we overcame them), and the present status of the instrument.

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