

VIDEO: 5,000 robots merge to map the universe in 3-D

October 18 2018, by Glenn Roberts Jr.



Credit: CC0 Public Domain

How do you create the largest 3-D map of the universe? It's as easy as teaching 5,000 robots how to "dance." DESI, the Dark Energy Spectroscopic Instrument, is an experiment that will target millions of distant galaxies by automatically swiveling fiber-optic positioners (the robots) to point at them and gather their light. In creating this detailed map, scientists hope to learn more about dark energy, which is driving

the accelerating expansion of the universe.

Scientists working at Berkeley Lab are assembling this array of robots and their related electronics – which represent hundreds of thousands of individual parts – into a group of 10 wedge-shaped petals that will be fitted together to form a circular focal plane. The focal plane will be mounted near the top of the Mayall Telescope at Kitt Peak National Observatory near Tucson, Arizona.

Provided by Lawrence Berkeley National Laboratory

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