《世界最大望眼镜贵州开始安装索网》

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The Five-hundred meter Aperture Spherical Telescope, known by the acronym FAST, is a radio telescope currently under construction in a remote area of southwest China ’ s Guizhou Province. It will be the world ’ s largest and most sensitive radio telescope when completed by 2016. And this afternoon, the first of the main cable net, composed of 9,000 cables, will be installed at the facility.

It’s the size of 30 football fields. The world’s largest telescope stands in Dawodang, Pingtang County, a region featuring typical Karst depressions.

The Karst valley, chosen from three-hundred possible locations, matches the shape of the huge bowl-like astronomical instrument.

The area’s natural geological shape has reduced the amount of digging required by more than 98 percent, resulting in just 540 thousand cubic meters having to be dug out.

With the existence of adequate limestone and dolomite, a subsurface drainage system was formed to channel groundwater out.

To provide better drainage, designers have built a tunnel, which will divert flood waters to the back of the mountain.

This will ensure safe and smooth operations at the facility. The basin has five mountain peaks surrounding the area, which effectively shields signal disturbance.

Meanwhile, the sparsely populated, underdeveloped region will provide a quiet environment for the telescope to operate, which needs to capture electromagnetic waves.

FAST’s main spherical reflector will be composed of 4,600 panels. Its collecting area will be more than 2.5 times that of the 305-metre dish at the Arecibo Observatory in Puerto Rico. The facility, costing more than 100 million US dollars, will allow international astronomers and scientists to discover more secrets of the universe.

It’s expected to enable the surveying of neutral hydrogen in the Milky Way and other galaxies, the detection of new pulsars, and the search for the first stars. The telescope could also help to look for alien civilizations by detecting and studying communication signals in the universe.