

# World's largest radio telescope

The *Five-hundred-metre Aperture Spherical Telescope*, or FAST, is the world's largest radio telescope. Hewn out of a mountain in China at a cost of \$180 million, it will explore space and hunt for extraterrestrial life

**Site:** Built into natural basin of *Dawodang depression*

**Support:** Six towers hold receiver in place

**Receiver:** Gathers data from reflector

**Steel ring beam**

**Reflector:** Cable mesh supports 4,450 triangular panels

**Rainwater drainage tunnel**

**Observatory:** Obtains data from receiver

200m  
656ft

Beijing

CHINA

FAST

1,000km  
620 miles

GUIZHOU PROVINCE

S312

FAST

5km  
3 miles

Perforated aluminium

**Triangular panel:** Reflector is too big to move but adjustable panels allow surface to be re-angled. Can study twice as much sky as that covered by *Arecibo Observatory*

**FAST:** 500m wide

**Arecibo, Puerto Rico:** Previous largest radio telescope (305m wide)

**Exclusion zone:** 9,110 residents relocated to ensure FAST remains isolated from possible electromagnetic disruptions