

Popular Mechanics

Telescopes That Will Define the Future of Astronomy

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2009 is the International Year of Astronomy, celebrating the 400th anniversary of Galileo turning a looking glass to the sky and shaking up humanity's view of the heavens. Then, puny telescopes could see moons, planets and the occasional celestial body. Today, huge lenses like those in the Large Binocular Telescope in Arizona and the Hubble Space Telescope in orbit probe the deepest reaches of the universe. Here are the five most powerful telescopes out today, and five more that will define the future of astronomy.



Giant Magellan Telescope, beginning construction in 2011

Organization: A consortium of nine universities and research centers

Location: Las Campanas Observatory, near La Serena, Chile

Claim: Where the Large Binocular Telescope boasts two large mirrors working in tandem, the Giant Magellan raises the ante to seven mirrors, each 8.4 meters (about 28 ft) across. The Steward Observatory, which is inside the University of Arizona football stadium, is currently building the mirrors.

Fun Fact: The elevation and remoteness of the Chilean Andes makes for great stellar observation. ALMA is under construction nearby, the European Very Large Telescope also resides in Chile, and the Giant Magellan Telescope will be neighbors with its little siblings, the twin 6.5-meter Magellan Telescopes that began operation in the early 2000s.