

Stitching Techniques Advance Optics Manufacturing



Goddard Space Flight Center

***QED Technologies
Rochester, New York***

Originating Technology/NASA Contribution

- ◆ NASA's James Webb Space Telescope employs aspheres, or non-spherical mirrors
- ◆ Precision interferometers, used for measuring optical surfaces, are necessary for high-quality aspheric optics

Partnership

- ◆ Goddard noted QED's interferometer technology and worked with the company through the Small Business Innovation Research (SBIR) program to enhance the instruments
- ◆ The company produced a breakthrough, "R&D 100" Award-winning tool that reduces cost and time of asphere production for commercial applications



Product Outcome

- ◆ The technology allowed aspheres to become more prevalent in telescopes, microscopes, and binoculars
- ◆ Using aspheres results in higher quality images and reduced system size
- ◆ The device is employed to make optics in Asia, Europe, and North America