

**Biaxial testing** is critical for understanding the mechanical properties of biomaterials due to their directionally oriented microstructures. The BioTester system has been designed to make biaxial testing simple so that users can focus on results rather than testing.

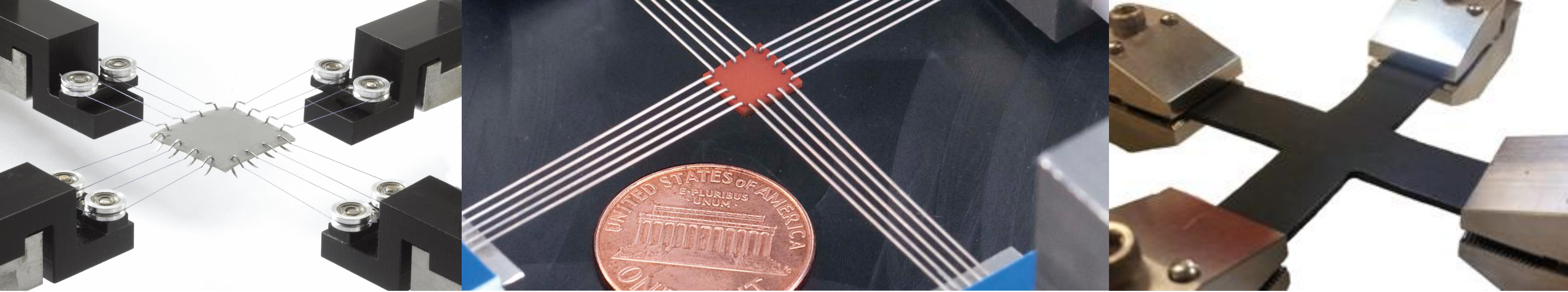
Since its introduction in 2008, continuous improvements and collaboration with users around the world have made this system the gold standard for biomaterials testing.



**The BioTester** brings together all of the unique features that are needed for quality biomaterials testing:

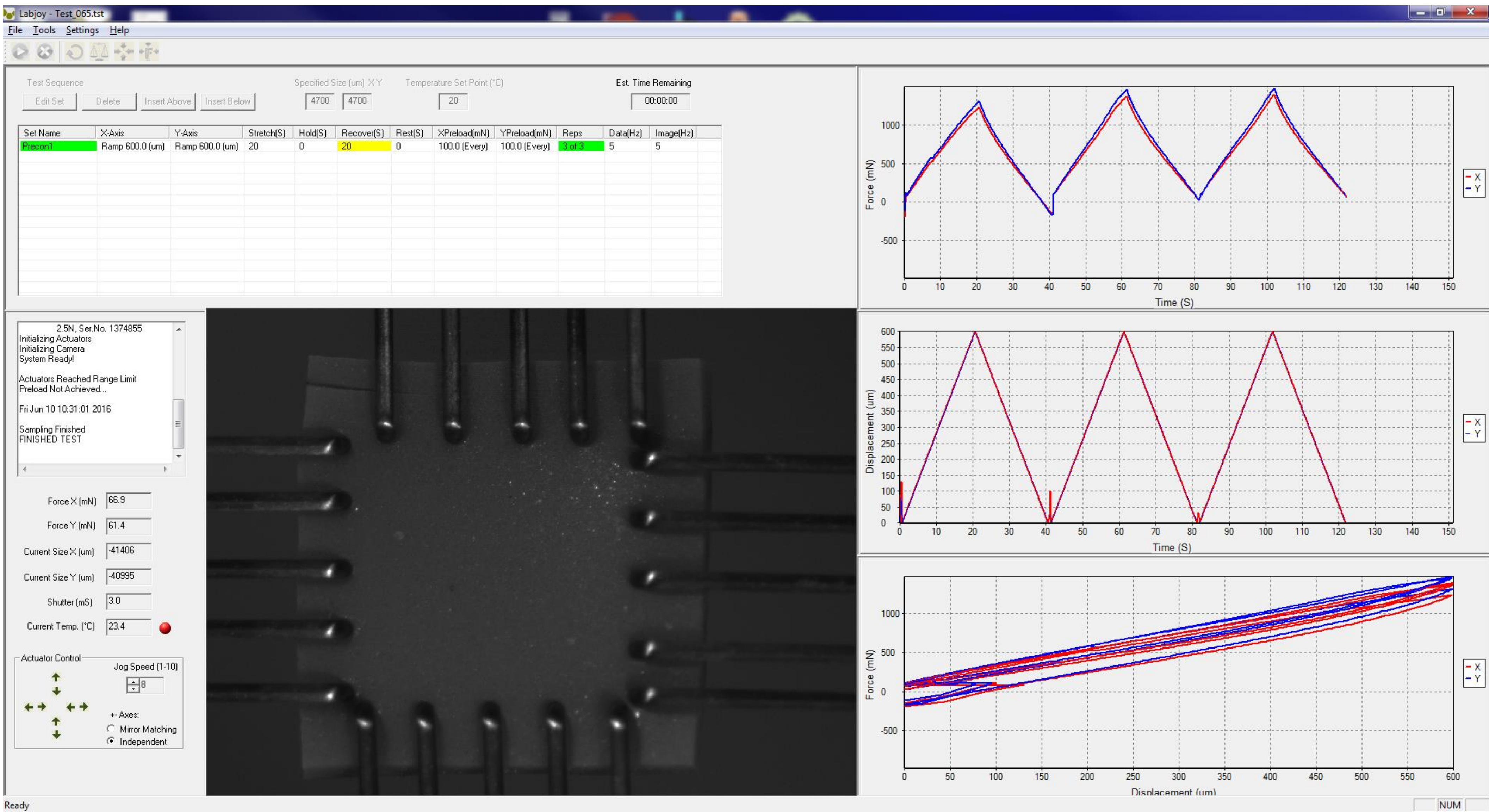
- A temperature-controlled media bath to maintain specimens at physiological conditions.
- A variety of attachment methods to support a wide range of specimen sizes and properties.
- An integrated imaging system for non-contact strain measurement and test validation.
- Removable and washable components for easy cleaning.



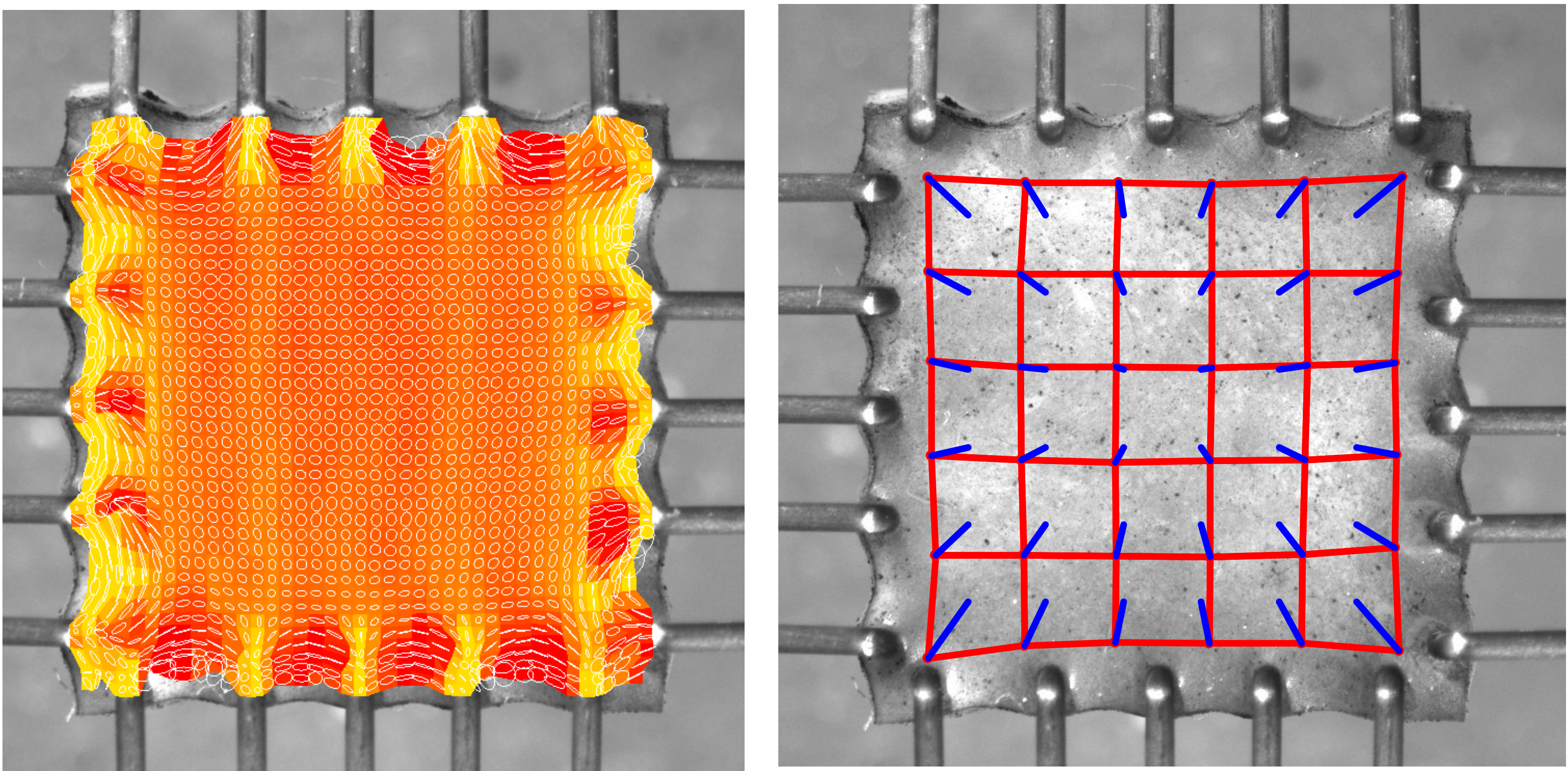


A variety of gripping methods are available for the BioTester. The patented BioRakes allow for fast and accurate mounting of specimens as small as 3mm. A tether mounting system allows for uniform force at each attachment point. Grips are useful for cruciform specimens and uniaxial tests.

Easy-to-use control software gives the user complete control of the test protocol. Displacement and force control, cyclic testing, creep, preloads, and non equi-biaxial loading are all easily specified. All test parameters can be stored as a template for future use. During the test, the software provides continuous feedback to the user through real-time images and data graphing.



A key part of mechanical testing is understanding the data. The BioTester image analysis software allows users to review test images, digitally track points on the surface of the specimen, and quantify local strain fields.



Force Capacity	23N
Available Load Cells	0.5, 1.5, 2.5, 5, 10, 23N
Force Accuracy	0.2% of load cell capacity
Maximum Grip Separation	80mm
Maximum Velocity	10mm/s
Maximum Cycle Frequency	2Hz
Maximum Data Rate	100Hz



CellScale Biomaterials Testing is the industry leader for precision biomaterial and mechanobiology test systems. Our products are being used at world-class academic and commercial organizations in over 30 countries around the globe.

Our mechanical test systems allow researchers to characterize the mechanical properties of biomaterials. Our mechanobiology technologies provide insights into the response of cells to mechanical stimulation.

CellScale's technologies are improving human health by helping researchers discover the causes of disease, improve medical treatments and devices, and advance regenerative medicine and other basic science research.

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