



UniVert

XY Stage

Automated X-Y Positioning for Mechanical Property Mapping

The XY Stage adds automated X-Y positioning to the UniVert, enabling repeatable multi-point testing across well-plate layouts, specimen surfaces, gradients, and heterogeneous materials

Spatial Mapping

Automated X-Y motion enables mechanical property mapping across heterogeneous samples, well plates, patterned materials, hydrogels, films, and gradients

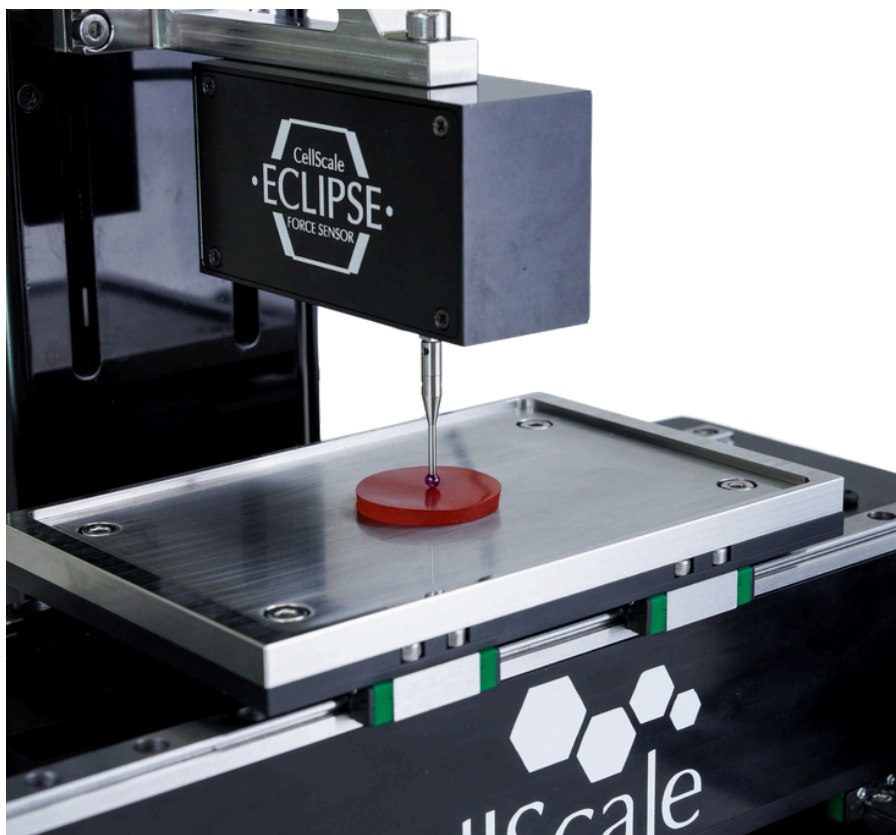
Superior Repeatability

Automated positioning helps maintain consistent spacing, contact location, and test sequence, improving repeatability across multi-point experiments

Increased Throughput

Run multiple test locations or wells with minimal manual positioning, reducing hands-on time for mapping, screening, and repeatable testing workflows

Map wells, surfaces, and gradients on the UniVert system



Example Applications

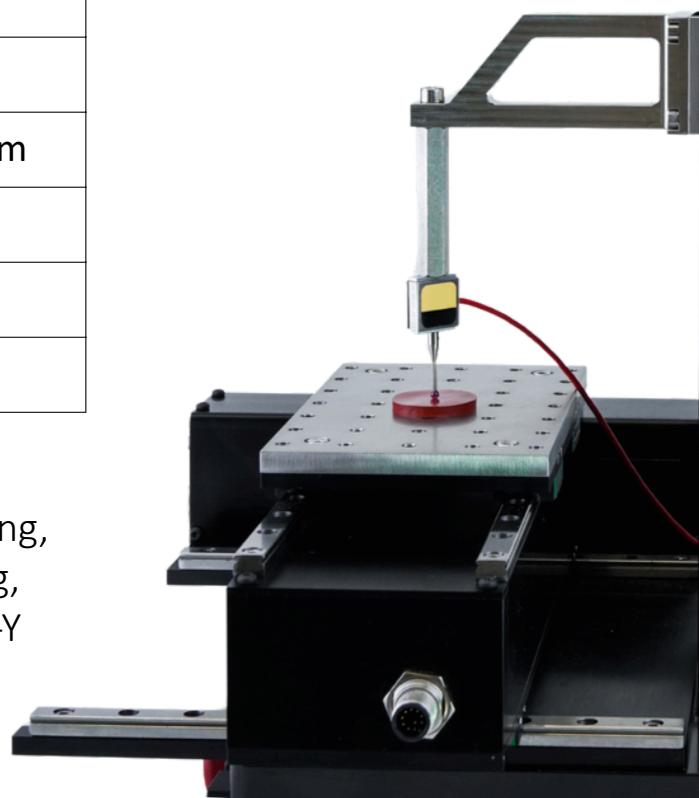
- Hydrogel stiffness mapping
- Cell-laden constructs
- 3D bioprinted materials
- Thin films and soft polymers
- Tissue sections and ECM matrices
- Microtissues and organoids
- Organ-on-a-chip membranes
- Patterned or gradient materials




SPECIFICATIONS

Max Load Capacity	200 N
Stage Speed	10 mm/s
X-Y Travel	100 x 150 mm
Position Accuracy	$\pm 50 \mu\text{m}$
Position Repeatability	$\pm 5 \mu\text{m}$
Position Resolution	$1 \mu\text{m}$

Common Workflows

Well-plate screening, indentation mapping, compression mapping, stiffness mapping, and viscoelastic testing across defined X-Y locations



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Request A Demo

Talk with our team about mapping workflows, fixture selection, and recommended UniVert configurations for your samples and research

