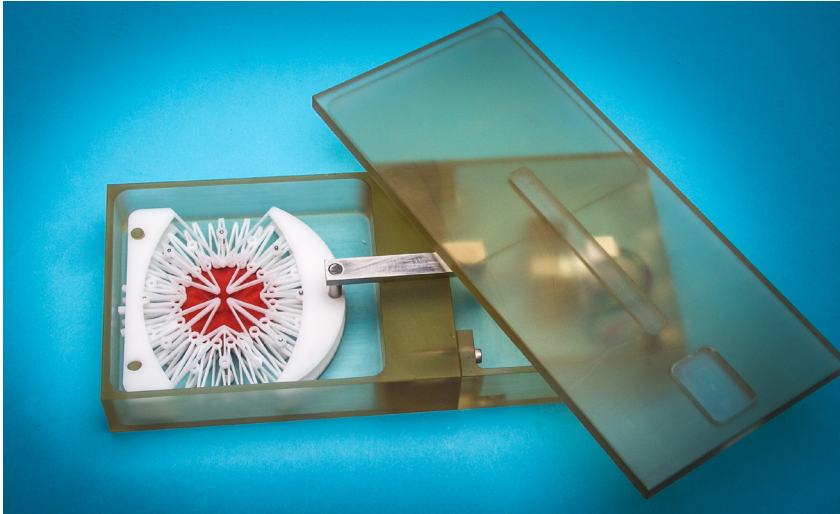




# MechanoCulture

## Strainable Substrate for Culturing Cells



*The Mechano Culture Base Unit fits easily into an incubator.*

- Uniaxial, equibiaxial (1:1) or non-equibiaxial (2:1) strains
- 0–15% strain
- Small media volumes (0.5mL) or large media volumes (100mL)
- Autoclavable

Work with a wide range of materials and material preparation treatments by using the circular membrane/scaffold design. The **MechanoCulture** system was developed to allow researchers to study the response of cells to multi-axial mechanical stretch. This cell culture system enables the testing of cells in a three dimensional structure and/or monolayers of cells adhered to a flexible substrate.

### Customized Test Environment

The **MechanoCulture** has a single chamber and operates independently, allowing multiple instruments to run multiple test protocols. This permits the flexibility to customize your test capabilities from a single test to dozens.

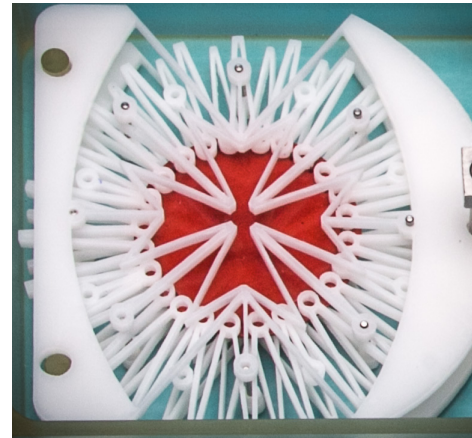
### Store Protocols

Store protocols from single monotonic stretches to millions of cycles. Test protocols are specified in a PC based software program that can be downloaded to the **MechanoCulture** so that they can run independent of a control computer. The **MechanoCulture** can store protocols ranging from single monotonic stretches to millions of cycles covering time periods from seconds to weeks.

### Media Volumes

Maximize media volumes and reduce the use of expensive chemicals. The use of a circular barrier ring facilitates low media volumes, minimizing the use of expensive chemicals.

Alternatively, filling the entire chamber maximizes the media volume and reduces the need for media changes during the course of a test.

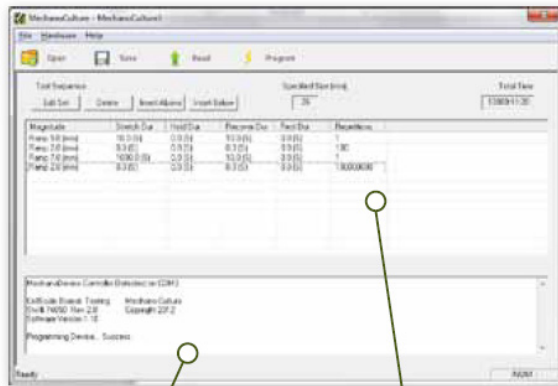


*The base unit posts move radially to stretch a silicone membrane from 1–25%.*



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Strainable Substrate for Culturing Cells



Message Window

Test Parameters



## Easy to use software

The **MechanoCulture** software is used to specify test parameters. The test sequence can then be downloaded to the instrument.

A run/pause button is used to initiate, pause and stop the test. An LED display indicates the state of the unit, including the number of cycles remaining in the original protocol. The base unit can be stopped and disconnected from its power source without losing track of its position in the protocol.

## SPECIFICATIONS

- Sample Size ..... 35mm in diameter
- Maximum Frequency ..... 2Hz
- Maximum Strain ..... 15%
- Maximum Sample Thickness..... 2mm
- X-Y Strain Ratios..... 1:0, 1:1, 2:1

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