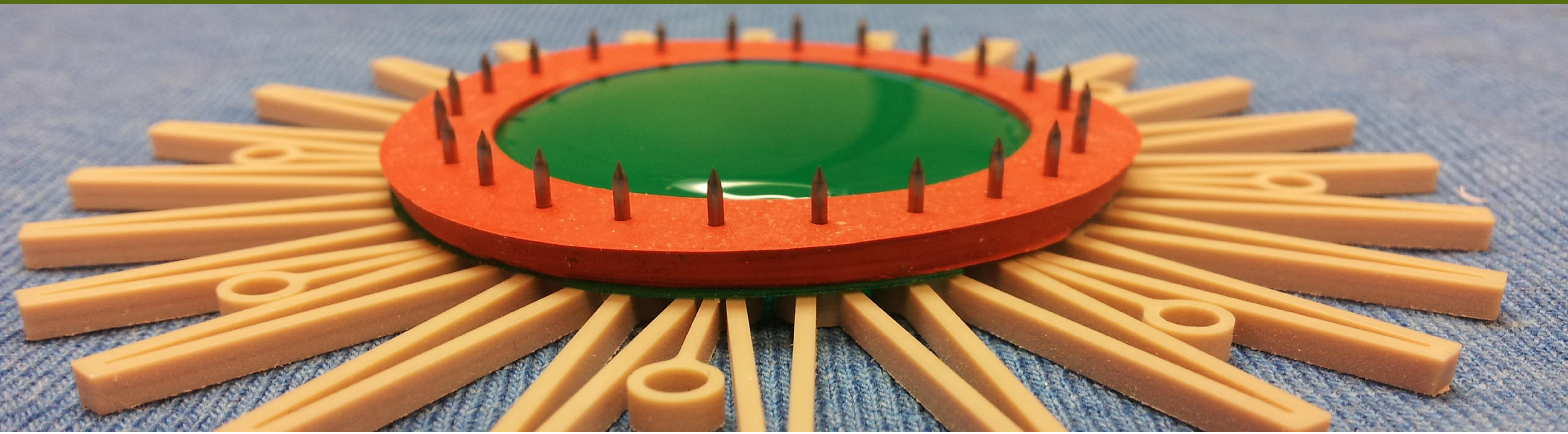


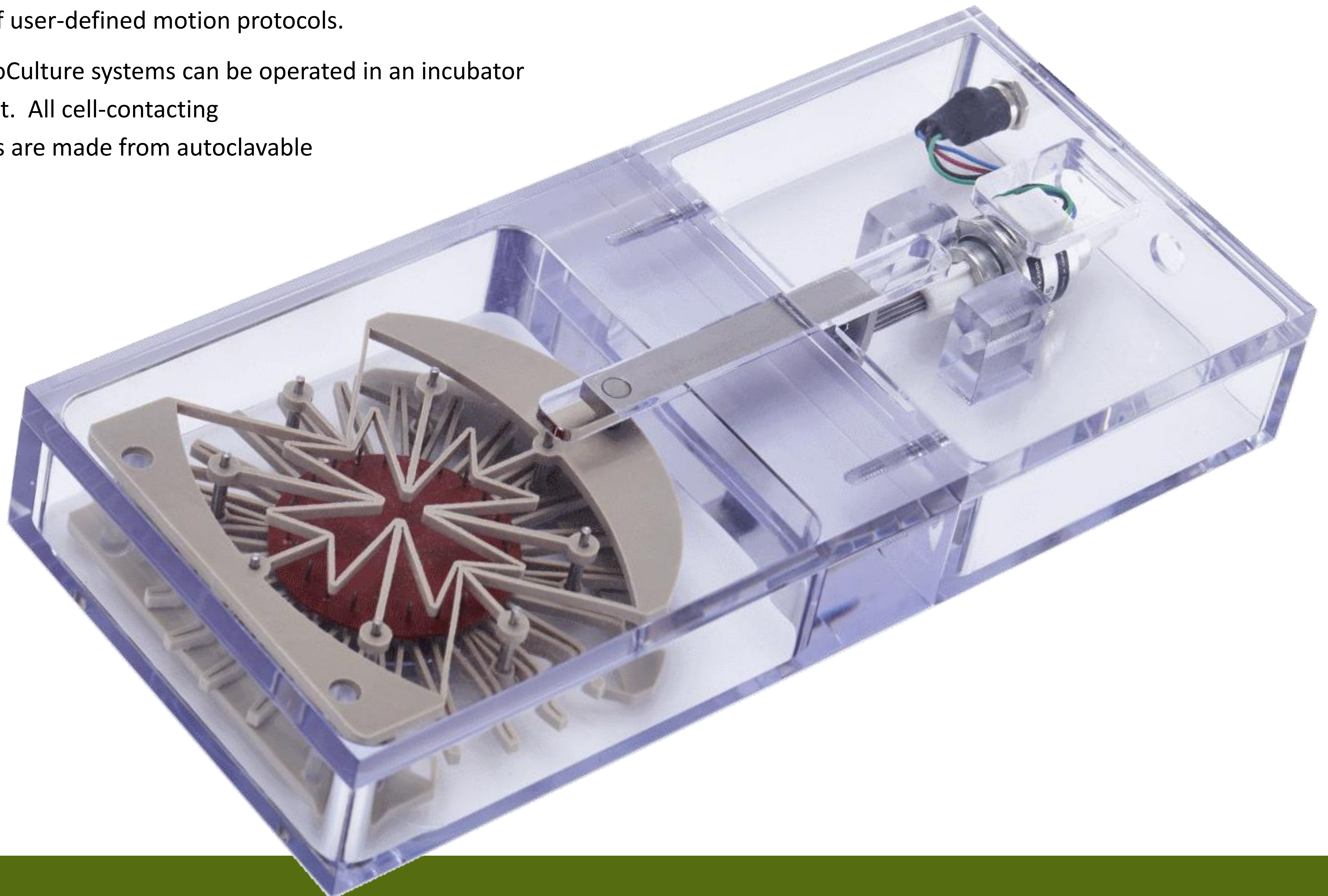
MechanoCulture B1



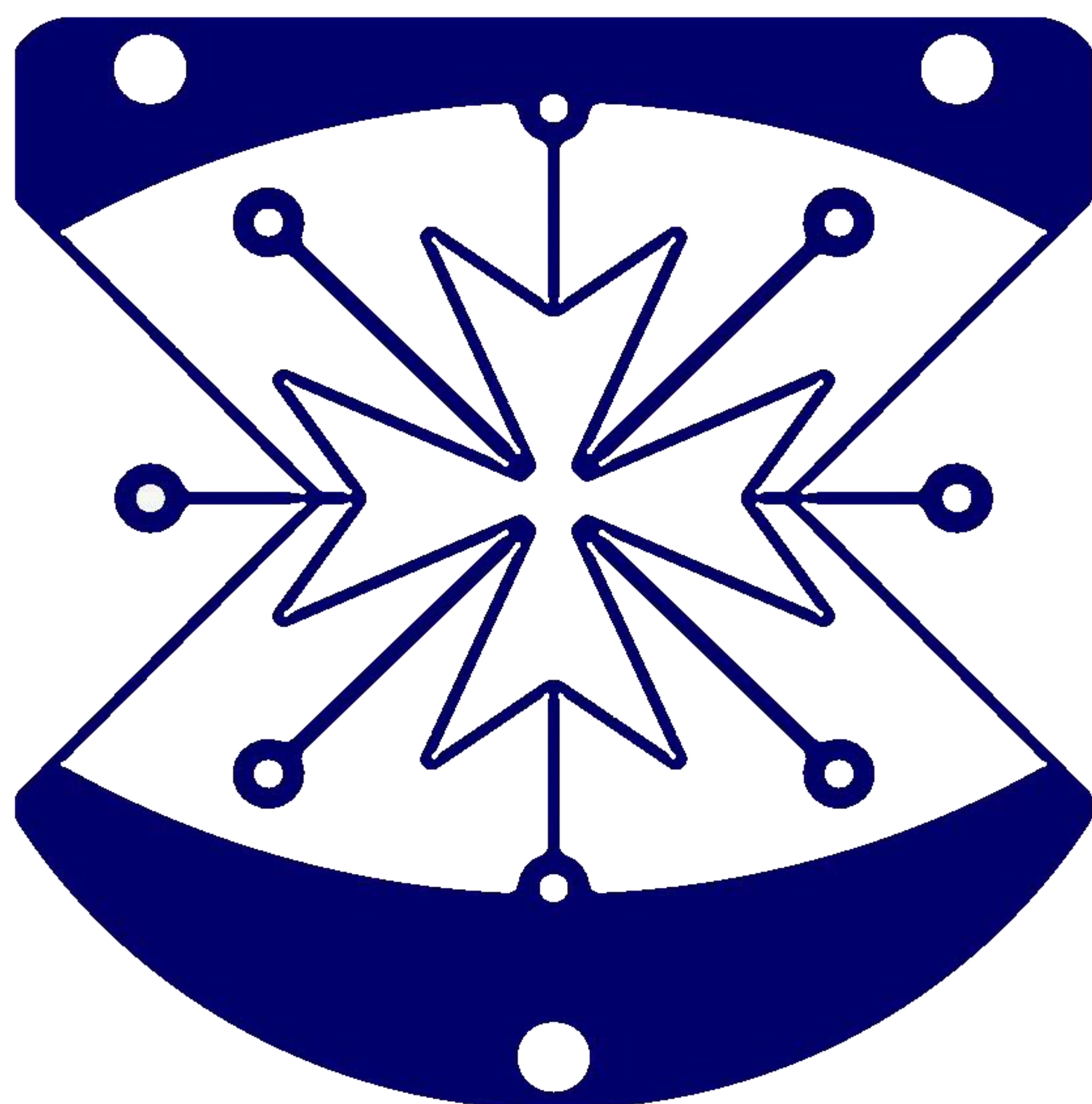
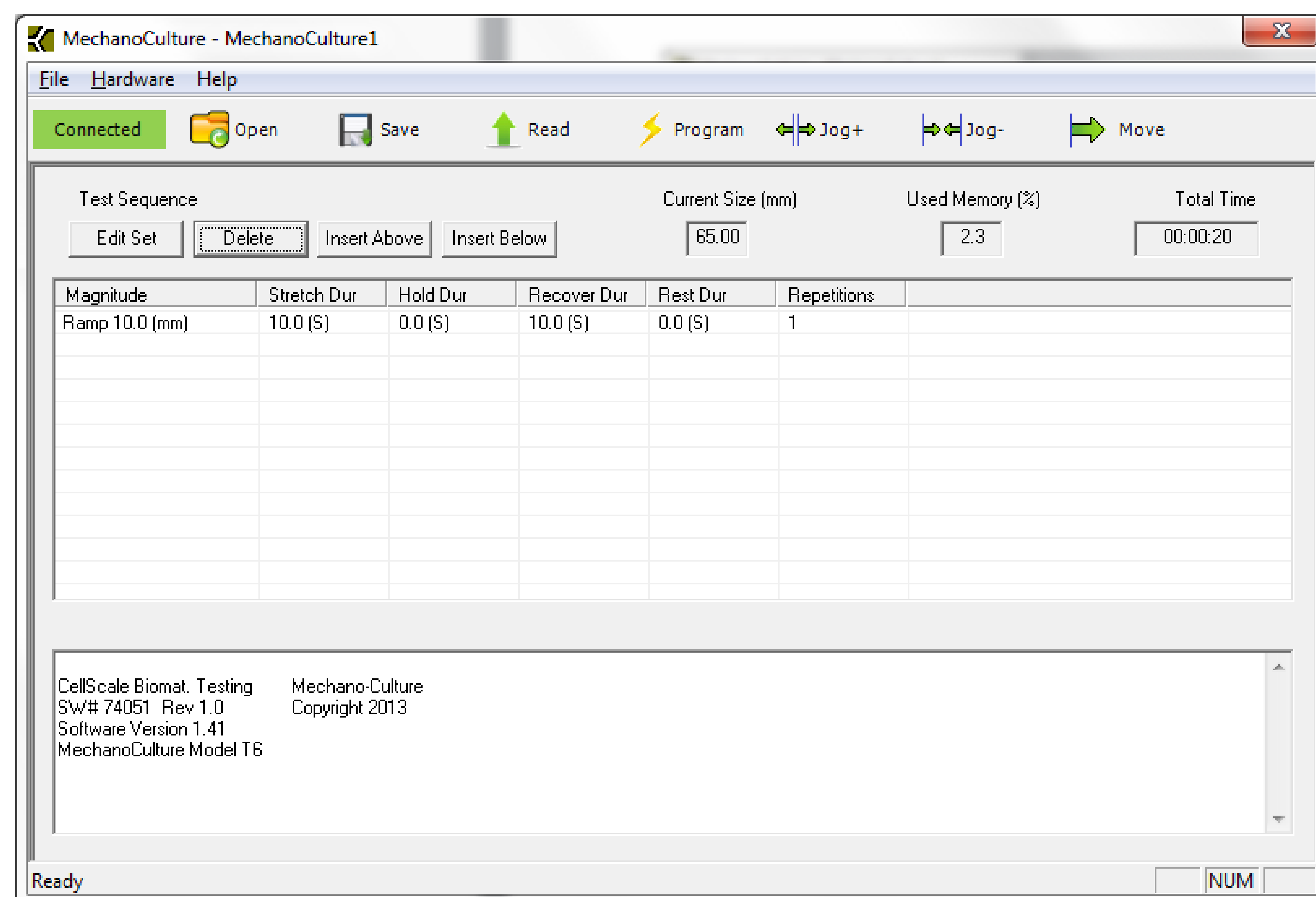
The MechanoCulture product group allows researchers to culture cells in a mechanically active environment. Configurations of these culture systems support single or parallel tests using a variety of flexible substrates and scaffolds. On-board controllers enable PC-independent execution of user-defined motion protocols.

All MechanoCulture systems can be operated in an incubator environment. All cell-contacting components are made from autoclavable materials.

The MechanoCulture B1 imposes biaxial stretch on a 35mm circular sample that can be punched out of any user-supplied extensible sheet. The system supports 3D scaffolds with embedded cells and 2D membranes with adhered cells. The chamber can be configured for 0.5-100mL of media.



The MechanoCulture B1 can be programmed to run constant velocity or sinusoidal stretch patterns. Magnitudes, frequencies, rest periods, and cycle counts can all be specified in the software application and programmed to the device.



A deformable component is used to generate radial motions from a linear input. A secondary component is used to transfer 8 points of motion into 24 sharpened pins. This feature distributes the load so that the attachment points will not tear through the specimen.

Specimens are cut using a hollow circular punch and can be made from any sheet material that it is sufficiently extensible (such as silicone sheet, hydrogels, electrospun polymers).



All components in contact with the culture can be autoclaved and the device can be run inside an incubator environment.



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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