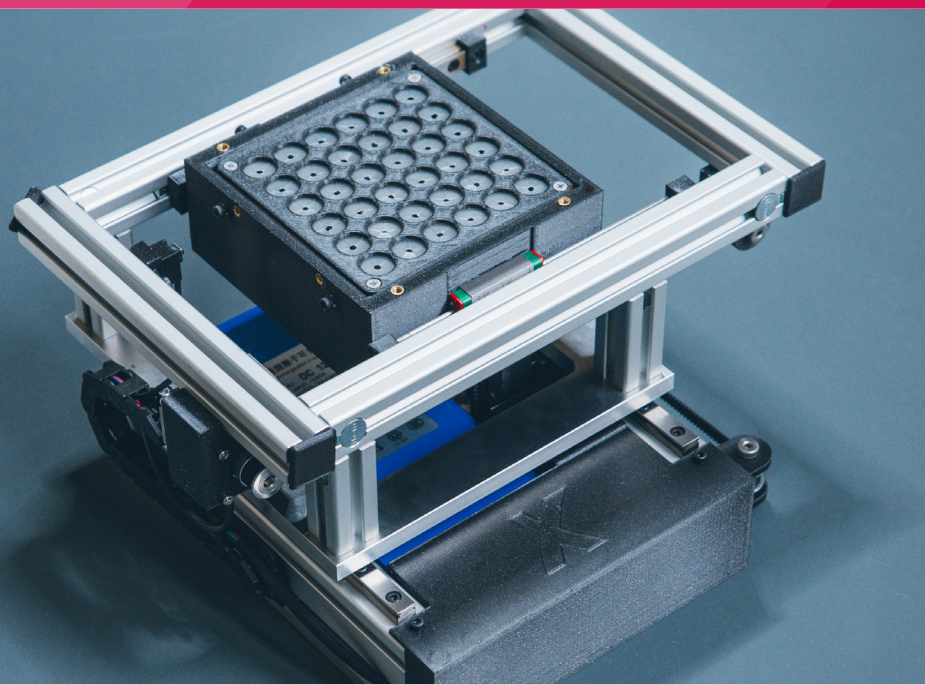XPLORAYTION GmbH

# µCT SAMPLE CHANGER INFO SHEET



## Introducing the Xploraytion Sample Changer

A reliable solution designed to enhance the efficiency of µCT measurements by speeding up your sample throughput.

This flexible modular device features a cost-effective highly adaptable 6x6 sample array, and is seamlessly integrated onto the synchrotron experimental chamber's rotating table as well as your table-top µCT device.

## Adaptable sample array

The 3D-printed sample array allows for convenient pre-loading of samples which simplifies the experimental workflow. Equipped with magnets, the samples are effortlessly pushed into the beam path one after another using a motorized magnetic pin, ensuring accurate positioning.
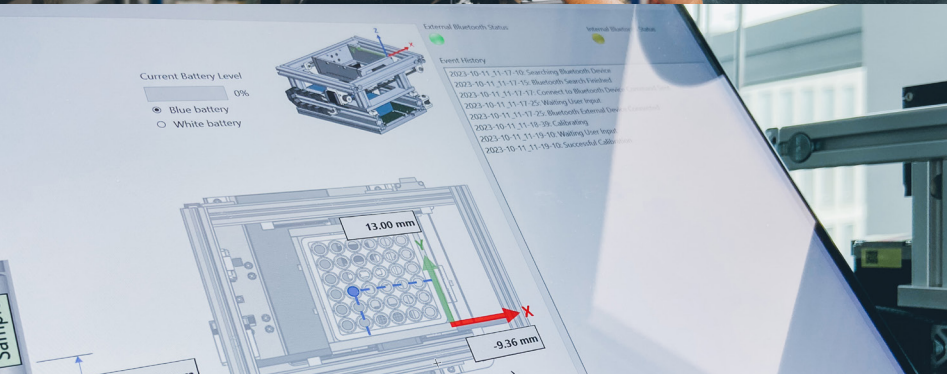
The Xploraytion Sample Changer array can be adapted to fit even more than 6x6 samples, thus potentially making an even higher sample throughput feasible.

## Smooth transitions and no vibrations!

Transitioning between samples is a breeze with the XY positioning motors. The sample array can be effortlessly adjusted above the experimental rotating table. This ensures that the "active" sample aligns perfectly with the rotation axis. And vibrations are effectively reduced through an advanced solution, providing stable conditions for reliable measurements.

## Easy integration and simple connectivity

Robots for sample changing are already being used at synchrotron beamlines. However, these systems require a significant amount of space and are cost-intensive. The sample changer seamlessly integrates with most µCT synchrotron beamlines and table-top instruments, eliminating the need for extensive modifications. Control is at your fingertips with the convenience of Bluetooth or wireless LAN connectivity using our instrument-independent software.

The improved automation with the Xploraytion Sample Changer significantly reduces setup times from minutes to just seconds per sample. Within this brief timeframe, the mechanism efficiently removes the previous sample from the beam path and positions the next sample accurately along the rotation axis of the rotating table.

Enhance your µCT research workflow with the reliable and precise Xploraytion Sample Changer now. Simplify your processes, optimize efficiency, and unlock new possibilities in your scientific endeavors.

# µCT SAMPLE CHANGER FACT SHEET

**Dimensions in base position**
width: 200 mm; length: 264 mm; height: 136 mm
**max rotation radius**
190 mm

**Sample change**
- sample change takes only 10 s
- 6x6 sample array can be prepared off-site before experiment (mail-in experiment)
- sample array highly adaptable for even more samples
- complete array change in 2-3 minutes

**Sample fixation**
- vibrations reduced to less than <0.6 µm*
- grid directs straight upward motion during sample change
- High positioning accuracy in all spatial dimensions

**Control**
- Bluetooth (arduino) and wireless LAN connectivity
- Synchrotron beamline or instrument-independent control software
- Integration/interface to experiment control software possible for even higher automation

*µCT measurement at 0.6 µm voxel size using sample changer and control measurement without sample changer showed no difference.

## Get a quote now!