

HaloC 375™

Revolutionize your ophthalmic research with the world's first visible-light optical coherence tomography for small animal anterior segment imaging.

The Opticent HaloC 375 research system is a free-standing visible-light optical coherence tomography (vis-OCT) imaging platform for imaging the anterior segment of the eyes in small animals (e.g., mice and rats). The optical design provides for the addition of multiple modules for specific applications, higher resolution lens assembly for microscopic imaging, or

standard lens assembly for a balance between field of view, imaging depth, and lateral resolution. HaloC 375 can be configured to be operated on a stationary or programmable mobile platform based on a small-footprint robotic arm, providing flexibility to meet different research needs.

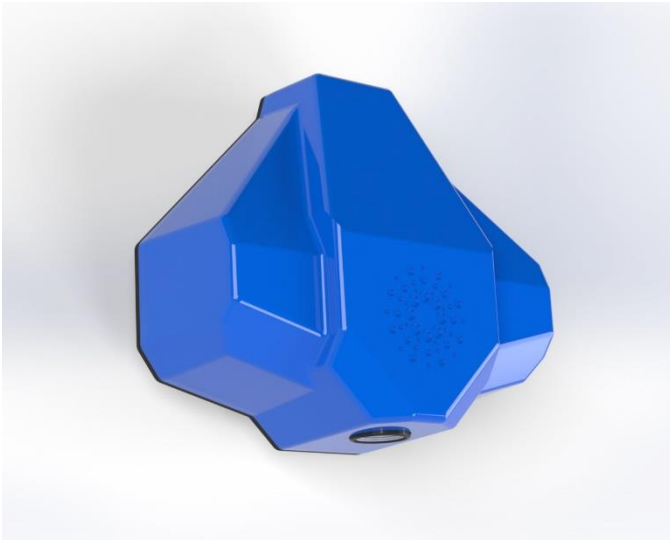


Figure 1: Rendering of the HaloC 375 imaging head.

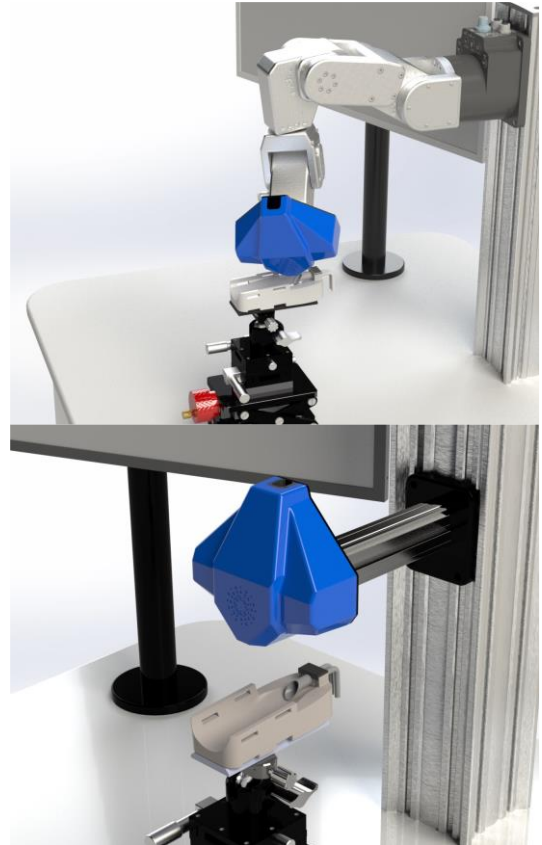


Figure 3: Comparing HaloC 375 system configurations with robotic arm (top) and stationary (bottom) support.



Figure 2: Rendering of the HaloC 375 complete system on a mobile cart, where the imaging head is mounted to a robotic art support, which enables freeform three-dimensional imaging. Cart height: 110 cm; width: 65 cm; depth: 65 cm.

HaloC 375 key imaging capabilities

Ultra-high-resolution anatomical imaging in live animals, tissue samples, and nonbiological samples

Complete anterior segment imaging

Corneal imaging

Outflow pathway imaging, including collector channels and Schlemm's canal

Limbal OCT angiography (OCT-A)

Free-form imaging with robotic arm

HaloC 375 specifications		
	Standard resolution model (optimized for <i>in vivo</i> imaging)	High resolution model (optimized for tissue & nonbiological sample imaging)
Axial resolution	1.3 μm in tissue	1.3 μm in tissue
Lateral resolution (FWHM)	7.1 μm	2.7 μm
Depth of imaging	1.5 mm in tissue	1.5 mm in tissue
Working distance	23 mm	10 mm
Field of view	7.2 mm	2.2 mm
Depth of focus	405 μm	60 μm
Maximum A-line rate	80 kHz (125 kHz or 250 kHz for an additional cost)	80 kHz (125 kHz or 250 kHz for an additional cost)
Spectral range	510 nm - 610 nm	510 nm - 610 nm
Angiogram mode	2-5 repeats	2-5 repeats
Speckle reduction mode	Up to 10 volume repeats	Up to 10 volume repeats
Mobile cart dimension	110 cm height; 65 cm width; 65 cm depth	110 cm height; 65 cm width; 65 cm depth

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