ECHO
A BICO COMPANY

REVOLUTION

Simplify Advanced Microscopy

Upright

Ideal for viewing and scanning slides.
Clean approach to oil immersion applications.
Useful for Water Dipping Applications.
Works with optional high resolution condenser.

Inverted

Designed for viewing and scanning live samples in fluidic chambers such as dishes and well plates.
Allows for easier manipulation of samples.
Ideal for Long Working Distance applications.

Transmitted Light

Stunning detail. Perfect Color.
Brightfield - Polarized Light - Phase Contrast.
5MP CMOS camera.
HD Video.

Fluorescence

Exceptional Performance.
No Darkroom required.
5MP monochrome sCMOS camera.
Overlay multiple wavelengths

Stage Top Incubation

Maintains optimal conditions for viability.
Stable temp./CO2 levels throughout experiment
Auto-focus finds and tracks best z-planes for focus (Critical for long-term experiments).

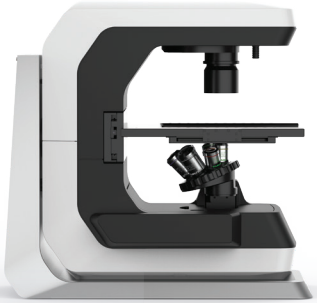
Multi-Dimensional Imaging

Automated time-lapse for live samples.
Stitch to form large FOV Hi-Res images.
Stack images at multiple focal planes.
Set mult. acquisition points to view and revisit.
Hyperscan for ultra high-speed image stitching.

Meet Revolution

The first and only fully automated hybrid microscope that easily transforms between upright and inverted configurations. We're putting advanced multi-dimensional microscopy at your fingertips with an intuitive, easy-to-use touch-based platform on our stunning 28-inch display.

Upright



Inverted

Finally, an Automated Microscope that your entire lab can use.

Microscopes are very powerful tools, essential for research and discovery. However, most advanced systems on the market today are overly complicated and highly application specific.

Revolution can accomodate a variety of core imaging techniques. Its unique, automated hybrid design provides you with more capability than any other widefield microscope.

Multi-Dimensional Imaging

Time-Lapse Imaging

Multi-Point Scanning

Mosaic Creation

Mutli-Channel Acquisition

Z-Stack Capture

Automated Microscopy

XY Stage: Fast, quiet, linear shaft stage with 0.1µm encoders

Hyperscan high-speed image stitching

25mm Z-focus drive with 0.1µm resolution

Cameras

Brightfield

- 5MP CMOS Color camera
- 2448 x 2048 (Pixel Size 3.45µm)

Fluorescence

- 5MP sCMOS Monochrome camera
- 2448 x 2048 (Pixel Size 3.45µm)

Display

28" PixelSense Touch Display

4500 x 3000 (192 PPI) Resolution

Adjustable, tilting display

Data Transfer

USB

Seamless integration with file sharing and cloud storage apps (Dropbox™)

Stand

UPRIGHT and INVERTED observation modes

Motorized, X, Y, Z and Fluorescent Turret

Intelligent Nosepiece informs software which objective is in use

Control by touch screen, mouse, or joystick

Repeatable camera and LED light settings

Optics

Optical components by Olympus®

1.25x – 100x (dry and immersion available)

Plan Achromat, Plan Fluorite, and Plan Apochromat options

Brightfield, Darkfield, Phase Contrast, and Fluorescence capabilities

Extra Long Working Distance (ELWD) condenser available

High Resolution (High N.A.) condenser available

Software

Touch interface for microscope and camera, and incubation control

Customizable image overlay tools

Simple online update process

Motorized Epi-Fluorescence Turret

Ultra-bright LEDs with 50,000-hour lifespan

Mercury-Free Illumination

Outstanding long-term stability with precise Illumination control

5 Imaging Channels
- 4 Epi-Fluorescence + 1 Transmitted Light

Sample Protect Mode – Allows the user to control sample's exposure to excitation light

Incubation

Optional Accessory

Fanless: eliminating vibration for easy imaging

Easy access to samples with magnetic door

Clear visibility for sample management

Superior Optical Performance.

Microsoft Surface
13.5 Million Pixels
28" Touchscreen

OLYMPUS
High Performance
Objective Lenses

CHROMA
Sputter Coated
Optical Filters

To build your own Revolution or request a demo visit discover-echo.com/revolution