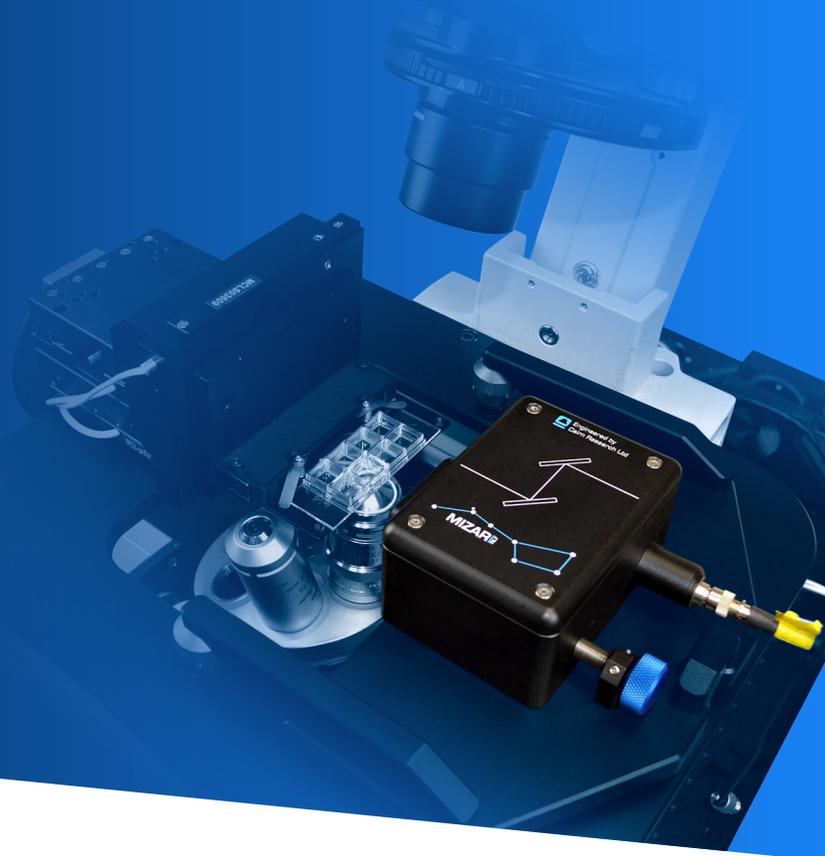




Tilt

High-Resolution Light Sheet Imaging



The Tilt from Mizar Imaging is a modular light sheet illumination system designed for high-resolution imaging. Mounting to most inverted microscopes, the Tilt enables light sheet imaging to be easily added to an existing or new microscope system.

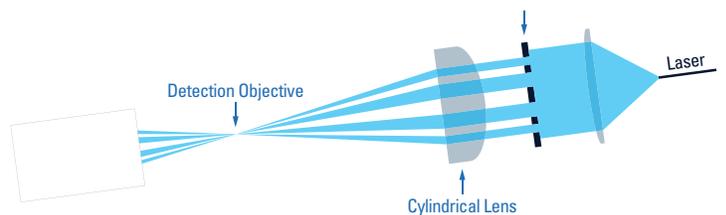
The Tilt brings Lateral Interference Tilted Excitation (LITE) microscopy (Fadero, et al., 2018) to the market. LITE microscopy eliminates the steric interference between illumination and detection objectives found in conventional light sheet illumination methods. Thus making it compatible with any detection objective, including high NA objectives (1.4 and greater). The Tilt system includes the LITE illumination module and an X,Y, PiezoZ substage, enabling high-speed, high-resolution, 3D light sheet imaging on a standard inverted microscope.

KEY BENEFITS

- Minimal photobleaching and phototoxicity
- Compatible with a wide range of sample types
- Adapts to most inverted microscopes
- Does not interfere with transmitted light and other modes of illumination
- Designed to work with both high and low NA objectives
- No image reconstruction needed
- Simple to use
- Accepts any single mode laser
- Compatible with any camera

APPLICATIONS

- Developmental biology
 - C. elegans*
 - D. melanogaster*
 - D. rerio*
 - X. laevis*
- Embryogenesis
- Intracellular dynamics
- Imaging of photosensitive cells and tissues
- Plant imaging
- Long term, live cell imaging



SPECIFICATIONS

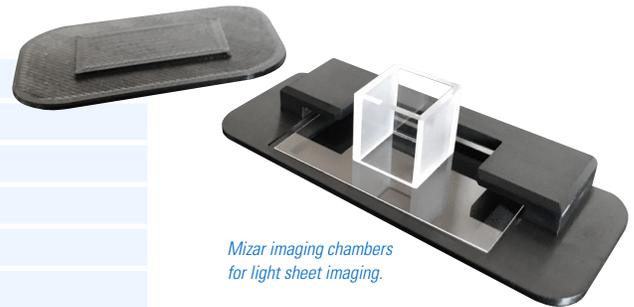
Light Sheet

Thickness	4.3 microns (FWHM)
Length	~ 300 microns
Wavelength range	400 – 700 nm

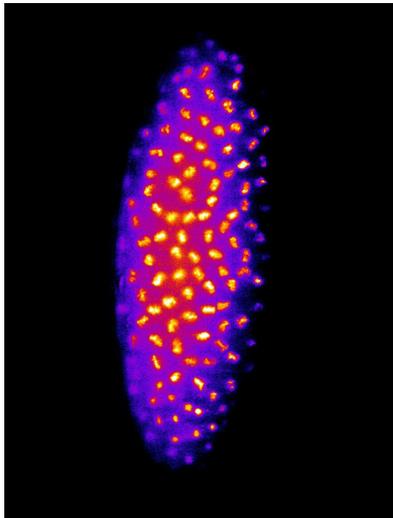
Stage

XY type	Encoded stepper motor
XY travel range	25 mm x 50 mm
XY control	Serial interface, control and/or joystick
Z type	Piezo
Z travel range	300 microns
Z control	Serial interface, analog voltage

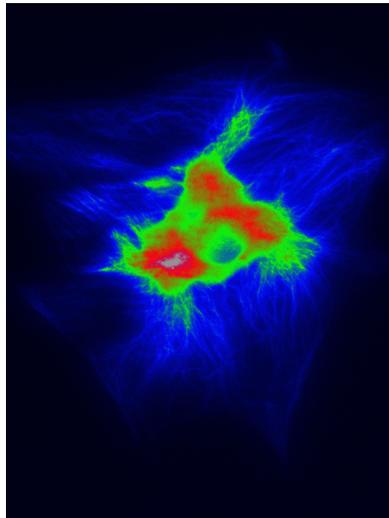
Fiber input	SM – APC (FC/PC available upon request)
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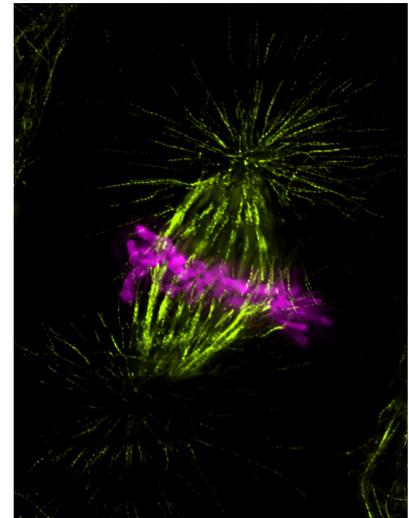
Compatible with a large range of organisms



D. melanogaster – RFP-H2B. Embryology 2018



GFP-labelled Microtubules in S3 cells. Embryology 2018



GFP-Tubulin, TO-PRO-3 – Expanded Cells. Vaughan Lab – University of Washington

Contact us for more information.