The Tilt from Mizar Imaging is a modular light sheet illumination system designed to image living samples longer and faster than previously possible with minimal photobleaching or phototoxicity. Mounting to most inverted microscopes and having the ability to use high NA/high magnification objectives, the Tilt enables high spatial and temporal resolution light sheet imaging to be easily added to an existing or new microscope system.

Using the patented Lateral Interference Tilted Excitation (LITE) microscopy technique (Fadero, et al., 2018), the Tilt light sheet imaging system employs a specialized light sheet illuminator that is compatible with most inverted microscopes, most detection objectives, including high NA objectives (1.4 and greater) and a wide variety of sample types. Together, LITE allows for higher spatial and temporal resolution imaging of both larger samples as well as tracking intracellular dynamics all without significant photobleaching and phototoxicity. The Tilt system includes the LITE illumination module and an X,Y, PiezoZ substage, enabling light sheet imaging to be performed on a standard inverted microscope.

### 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

### 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
- Compatible with most imaging software packages
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 and/or joystick
- Z type: Piezo
- Z travel range: 300 microns
- Z control: Serial interface, analog voltage or joystick
- Fiber input: FC/APC or FC/PC

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.