Extended Depth Whole Cell Imaging with Double Helix Optics’ Phase Mask
See deeper into your sample than ever before

Double Helix Optics’ library of EDOF phase masks delivers an extended depth of field without the traditional trade-offs of light or resolution, enabling single shot in-focus depth capture of more than 3x conventional optics. Matched with our computational optics algorithm you can achieve even greater resolution with depth.

- Capture deep into your sample without scanning in Z
- Increase depth of field without stopping down the aperture (greater f-stop) rejecting precious light or losing resolution
- Optimize masks to match your optical imaging system
- Reduce opto-mechanical complexity on your existing microscope or part of your OEM solution

EDOF phase masks can be used alone, but best performance is achieved with our optimized computational optics algorithms available as part a familiar Fiji/ImageJ plug-in, or as a Windows, Mac, or Linux compatible dynamic libraries.
Extend depth of field of your microscope with the award winning SPINDLE®

Easily combine extended depth of field imaging with your existing widefield microscope with our SPINDLE® family of products. SPINDLE, SPINDLE® and 3DTRAX™ software are optimized to work with the Double Helix Optics’ phase mask library as one advanced system—delivering unprecedented precision with extended depth, all in an easy-to-use modular upgrade to existing microscope systems.

Modular design. Upgrade to any widefield microscope. Built-in bypass mode allows for easy return to conventional experiments.

About Double Helix Optics

Double Helix Optics enables visualization and data capture of objects at an unmatched depth and precision quality. Its Light Engineering™ point spread function-based technology is advancing the field of 3D imaging, allowing for new discoveries in research and new capabilities of promise to a range of applications. The SPINDLE®, SPINDLE® software and 3DTRAX™ software are currently in use by globally recognized scientists. Double Helix Optics is headquartered in Boulder, Colorado. Discover more at doublehelixoptics.com.