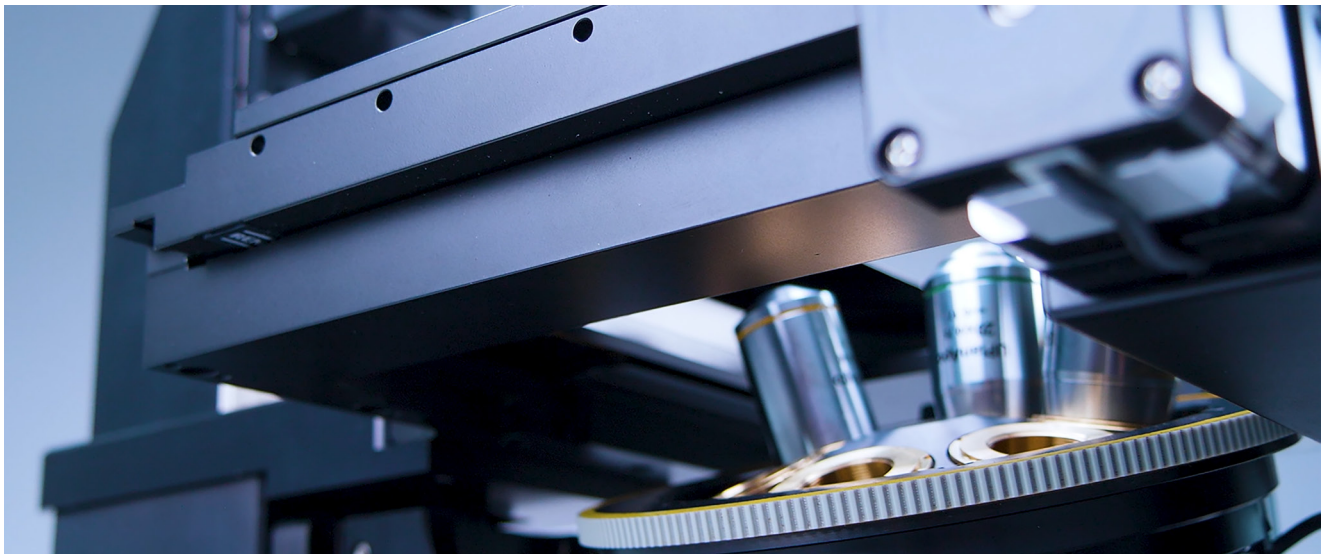
PRIOR
Scientific

OpenStand®

Modular imaging platform

Custom microscopes, optical imaging systems and more

Fast-track imaging systems



Custom system for your application

Prior Scientific's OpenStand offers a working platform to build OEM solutions and one-off customizations with excellent value for money and reduced development time.

Whether developing new automation techniques and software or new imaging methods, OpenStand is a flexible and fully customizable system suitable for optical microscopy and imaging.

Designed to solve traditional development challenges, OpenStand offers a streamlined path from concept to production. Instead of choosing between expensive custom builds or restrictive standard systems, you can now access a fully motorized, adaptable platform that reduces time-to-market and development costs.

The platform offers unique benefits including rapid prototyping capabilities, guaranteed component compatibility, integrated development support, parallel software and hardware development, and cost-effective customization.

Offered in multiple formats, OpenStand supports diverse applications from industrial inspection to life science research. Each variant provides modular features such as episcopic and diascopic illumination, motorized stages, automated objective changers, and versatile camera mounting options.

Above: Production-ready instruments developed using OpenStand.

“The most significant advantage of OpenStand is that we can get a working prototype to our customers fast. They can start developing their application straight away, reducing their development costs and time to market significantly.”

Thomas Freda - CEO, Prior Scientific

Reduce your time to market

With OpenStand, you get a working system to start developing your application immediately that can also be easily adapted during your development phase. The four base formats are compatible with hundreds of components, meaning you can choose and customize the right configuration for your application.

Our collaborative process begins with an in-depth consultation, where product managers work directly with you to understand specific application requirements and tailor each OpenStand solution to your precise needs.

By keeping development and production under one roof, Prior Scientific ensures seamless communication and rapid iteration, transforming OpenStand from a concept to a production-ready solution.

Why start with OpenStand for customized solutions?

Cost Efficient - reduce your costs by only purchasing the components you need.

Speed to Market - get a complete system in one purchase with a short lead-time.

Easy Automation - choose what you need from our vast portfolio of motorized and automated components.

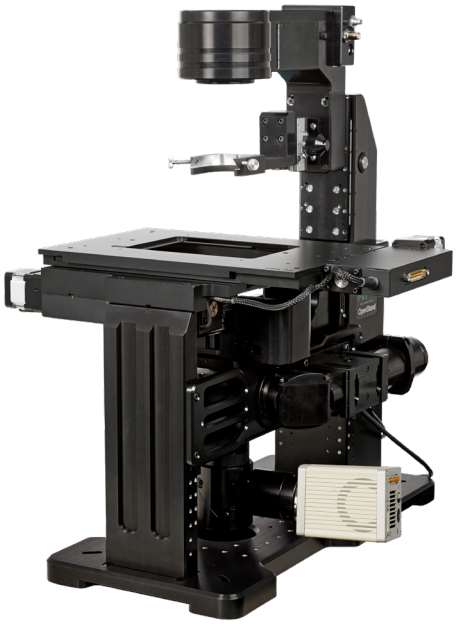
Customized Components - specific requirements can be designed by our in-house team.

Expandable - add components as your needs grow or only keep the ones you need for an OEM design.

Future Proof - software developed on OpenStand is portable and easily integrated.

OpenStand formats

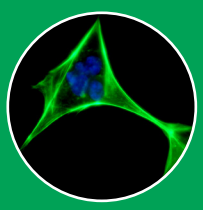
OpenStand-V
Inverted Microscopy Platform



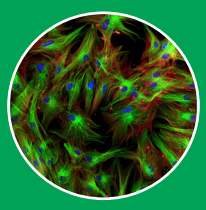
- Ideal for high-content screening, well plate scanning, slide imaging.
- Multiple light source inputs, multiple cameras, and infinity space access ports available.
- Customizable optics for non-visible wavelength imaging.
- Laser autofocus provides real-time focus for long time-lapse imaging.

OpenStand-L
Large Format Microscopy Platform

- Large motorized stage options support 12-inch wafer scanning or industrial sample inspection.
- Dual 145 mm coarse focus and 20 mm fine focusing axes with optional encoding.
- Laser autofocus for industrial scanning without volumetric imaging.
- Diverse array of reflected light imaging options.

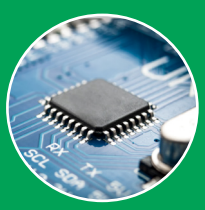


Live cell imaging



High-content screening

Semiconductor inspection



Industrial inspection

OpenStand-U

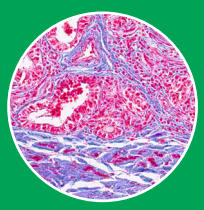
Upright Microscopy Platform

- Versatile configuration for transmitted and reflected light.
- Adaptable to applications as diverse as industrial inspection or confocal microscopy.
- Can be configured with stage or nosepiece focusing.
- Adaptable laser autofocus provides real-time focus for different samples.

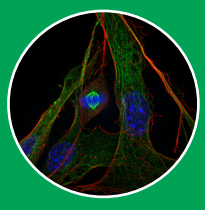
OpenStand-M

Small Format Microscopy Platform

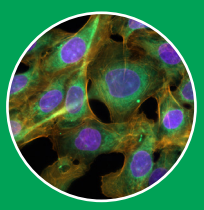
- Customizable for upright microscopy and dedicated reflected light configuration.
- Compact design for easy integration into larger assemblies, minimizing product footprint.
- Adaptable episcopic illumination system with interchangeable illumination ports.
- Low profile provides enhanced stability in uncontrolled environments.



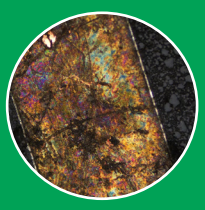
Slide scanning



Confocal microscopy



Fluorescence microscopy



Metrology

How to start your customization

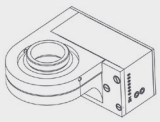
Contact us

for consultation on how we can build your solution and software compatibility:

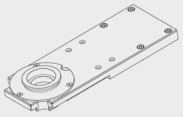
prior.com/contact

email: inquiries@prior.com

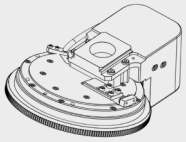
Piezo objective positioner

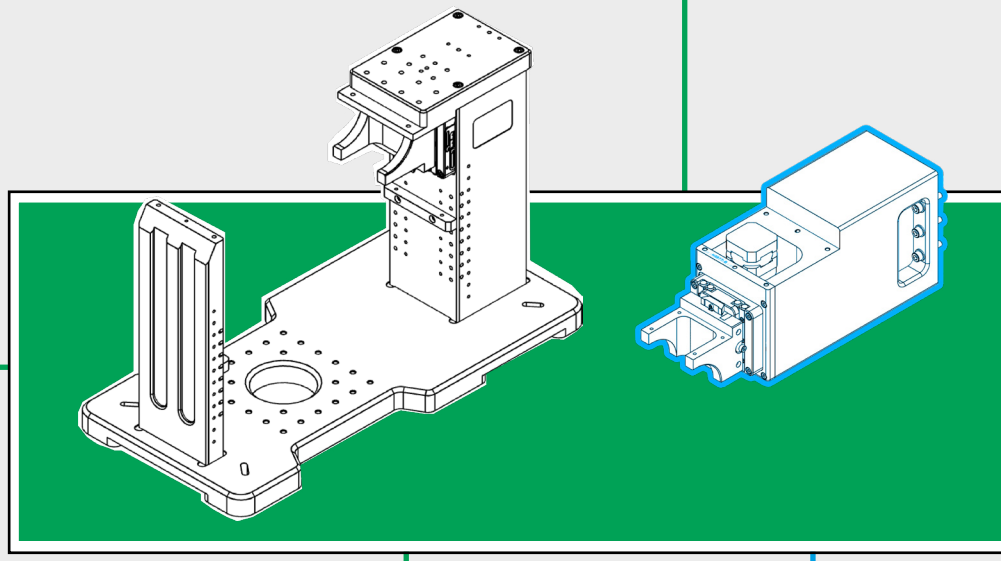


Nosepiece mount

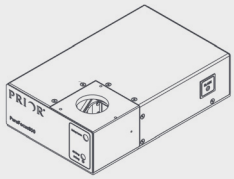


Nosepieces

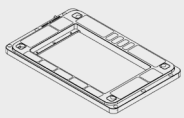




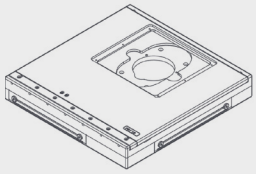
Hardware Autofocus



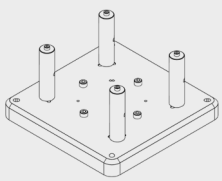
Piezo



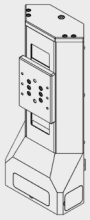
Motorized stages



Stage mounts

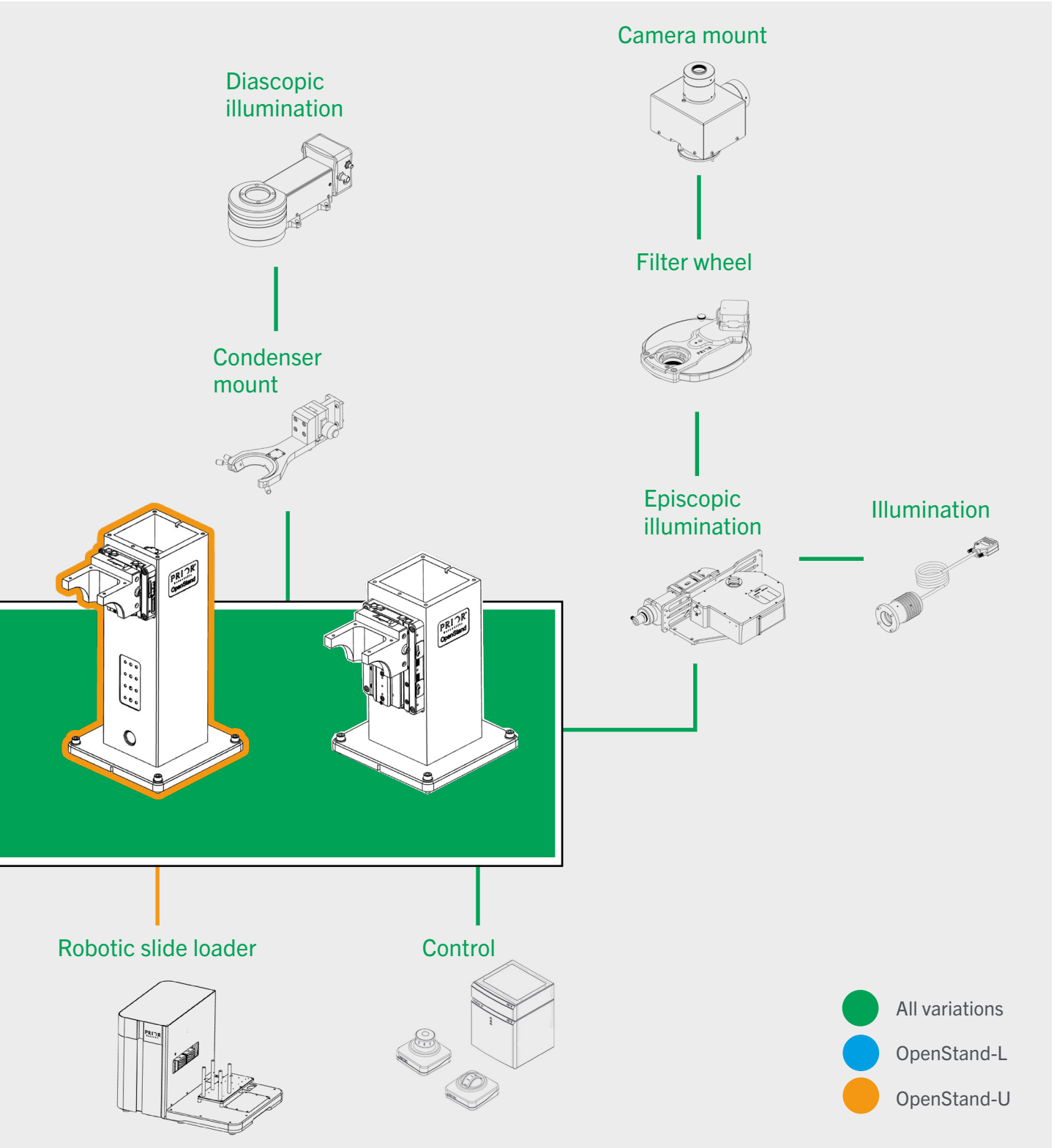


Large format stand



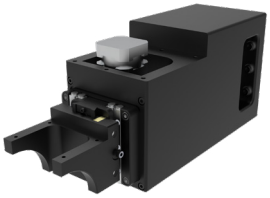
> *Adding only the components you need for your application brings significant savings to the final instrument.*

Simon Bush - Product Manager, Prior Scientific



Available modules

OpenStand Frames



Customize your OpenStand build with one of four frames that offer 20 mm or 40 mm travel with options for encoded or non-encoded variations.

Each frame suits a different OpenStand build ranging from inverted, large format, upright, or small format microscopy platforms.

Large Format Stand

The large format stands provide coarse focusing for OpenStand-L systems. Manual and motorized versions are available with up to 145 mm of vertical travel.

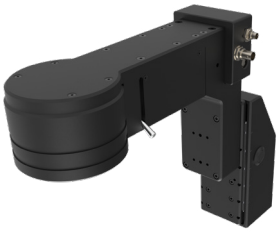
The stands mount directly to a 6 mm or 1/4-20 breadboard and are highly customizable to work with large or irregular samples.

Stage Mounts

Prior offers various mounting ranges for different types of objectives, focus methods, and sample thickness.

Our stage mount options offer excellent stability for your application.

Transmitted Light Systems



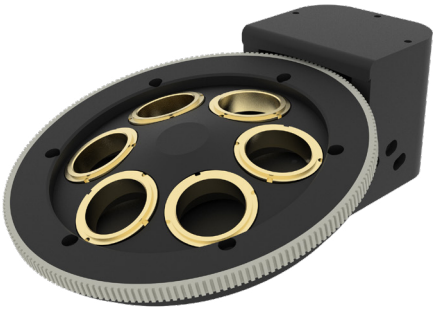
Diascopic illumination can be added to the OpenStand to image a wide variety of specimens. Options are available for critical or Köhler illumination designed to provide excellent flatness and underpinned by Prior or third-party light sources.

Development of more complex diascopic options is also available.

Nosepiece Mounts

A variety of nosepiece mounts are available that are compatible with Prior, Nikon, Evident, and other brands.

Nosepieces



Choose from 1, 2, 5, or 6- position nosepieces that work with most microscope objectives. Nosepiece options that are compatible with Evident, Nikon, and Mitutoyo objectives are available.

Typically configured as motorized to offer greater automation for OEM optical solutions and custom microscopes, with manual options available for smaller budgets.

Condenser Mounts

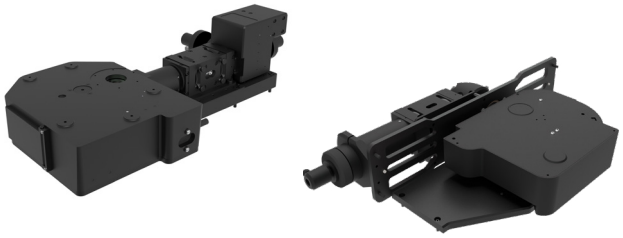
Prior offers a range of condenser mounts that work with upright and inverted condensers, including larger universal condensers for techniques such as phase contrast and dark field.

Laser Autofocus

Real-time laser autofocus system with rapid automated focus recovery for numerous applications, including industrial and life science microscopy.

Easily adapted to any infinity optical system, both upright and inverted, it offers sample detection, dynamic power adjustment, and long focus recapture range.

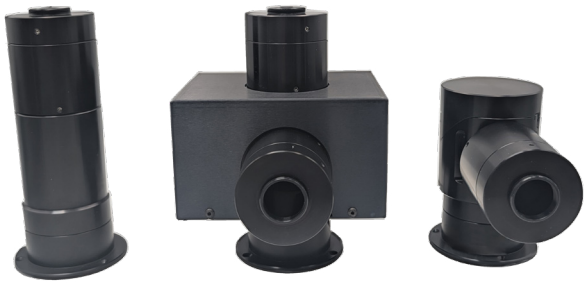
Reflected Light Systems



An episcopic illumination pathway with a multi-position turret facilitates widefield fluorescence or reflected white light imaging.

The path is designed to provide as wide a field of view as possible with commercially available objectives. Options are available to adapt the path to enable laser injection or provide a dual light source input.

Camera Mounts



Our camera mounts feature a built-in tube lens which can be changed depending on the objectives being used, to optimize image quality.

Many Prior camera mounts feature folded optics, improving the stability of the camera and reducing the vertical footprint of the imaging system.

C-mount, F-mount and T-mount options are available.

Motorized Stages

Each OpenStand format is compatible with several of our motorized stages to suit a variety of applications including high content screening, well plate scanning, slide imaging, wafer inspection, industrial samples, and other automated microscopy requirements.

Illumination

We provide white light illumination, or a combination of single wavelength LEDs for OpenStand systems.

We can also support with integrating third party light sources with access to more channels or intensity.

Controllers and Joysticks

Our universal multi-axis microscope automation controllers and joysticks for X, Y, and Z axes are easily integrated into third-party software.

Prior ProScan and OptiScan controllers and CS200 Series Joysticks feature a compact, space-saving design.

Accessories

In addition to our own components, we can source a variety of additional peripherals from other suppliers to ensure we meet the specific requirements of your application.

Nanopositioning

Our nanopositioning piezo objective and sample scanners offer fast step and settle times with ranges from 200 µm to 800 µm.

The stages ensure exceptional repeatability and resolution and, with a wide range of available adapters, can be fine tuned for specific applications.

Introducing Filter Wheels for OpenStand

The slim design of our filter wheels for OpenStand enables easy integration of fast wheels for fluorescence without compromising the field of view.

The high-speed filter wheel holds up to eight 32 mm filters and allows users to simply and quickly tailor illumination to suit specific requirements.

Discover more...

Queensgate Nanopositioning

Piezo-driven, flexure guided positioning stages for high-speed, high precision applications.

Design and Manufacturing

End-to-end image system design and manufacturing services for customized products.

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