



OPEN-DESIGN MICROSCOPE WITH
MOTORIZED FOCUS NOSEPIECE

OPTIMIZED TO ALLOW *IN VIVO* AND
IN VITRO EXPERIMENTATION ON ONE
SETUP

QUICKLY CONFIGURABLE BASED ON
EXPERIMENTAL NEEDS

OPTIONAL WITH MANUAL OR
MOTORIZED TRANSLATOR, OR
MOTORIZED XY STAGE



NAN™ OPEN-DESIGN UPRIGHT MICROSCOPE

The Sutter NAN™ — A focusing nosepiece microscope designed for electrophysiology. The microscope frame has been reimagined around our highly-stable adjustable MT-70 manipulator gantry stands; this design choice allows for many possible configurations to match the ever-expanding applications in the field of electrophysiology.

The NAN is manually height adjustable, with a range of 75 mm, which allows a single microscope to be coarsely re-positioned in Z within a few moments to switch between slice work or *in vivo*. There are two overall height variants of NAN, determined by the nosepiece that is selected. The focusing nosepiece, with 25 mm of motorized travel, can be configured with either a single objective nosepiece (Sutter made) or an Olympus 2-position swinging nosepiece. The height of the gantry stands is 15.25 cm (6") or 22.86 cm (9") for the single nosepiece or 2-position swinging nosepiece, respectively.

The epi level can be configured with a single filter cube or a complete Olympus epi-illuminator.

The transmitted light system is available with a single white light LED or dual white light and IR LED. LED transmitted light illumination uses the Olympus Oblique Coherent Contrast (OCC) condenser, or IR-DIC components for the available contrast methods. The LEDs are driven by the TLED controller and are capable of being triggered with a digital signal. This eliminates the need for shutters, and adds the ability to photostimulate from the trans location. In experiments where transmitted light is not desired, the LED, condenser focus mechanism and condensing optics are easily removed as a single assembly. Additionally, the transmitted light path is shorter than in other systems, allowing the microscope body to sit significantly lower than a conventional microscope. When the microscope is shorter, there is more stability, increased ergonomics, and ease of use.

The NAN can be configured with trinocular eyepieces for visualization, or alternatively, with a tube lens and C-mount if only a camera is desired.

An important detail to consider with the NAN is whether to translate the microscope, or move the sample and manipulators together on a large platform stage, or finally, translate the microscope but mount the sample and manipulators on a fixed platform stage. For the XY motion, all combinations of manual and motorized motion are available with the NAN. Here are the three general configurations:

- Manual or motorized translator with manipulators mounted on individual gantry stands
- Manual or motorized translator with manipulators mounted on a large platform stage
- Motorized XY platform stage with the microscope fixed to the tabletop

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 MADE IN USA

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NAN-21 with MPC-78 stage



NAN-12

APPLICATIONS

- Patch clamp electrophysiology
- *in vivo*, *in vitro*, and slice
- Whole-cell recording
- Intracellular recording
- Material science

FEATURES

- Optional with manual or motorized translator, or motorized XY Stage
- Open-design microscope with motorized focus
- Quickly configurable based on experimental needs
- Optimized to allow *in vivo* and *in vitro* recording experimentation on one setup
- Designed for use with Olympus objective lenses
- Free Multi-Link™ software coordinates movement with micropipette positioning of MPC-200
- Oblique Coherent Contrast (OCC) or Differential Interference Contrast (DIC)
- Epi-fluorescent illumination