

NANO STAGE

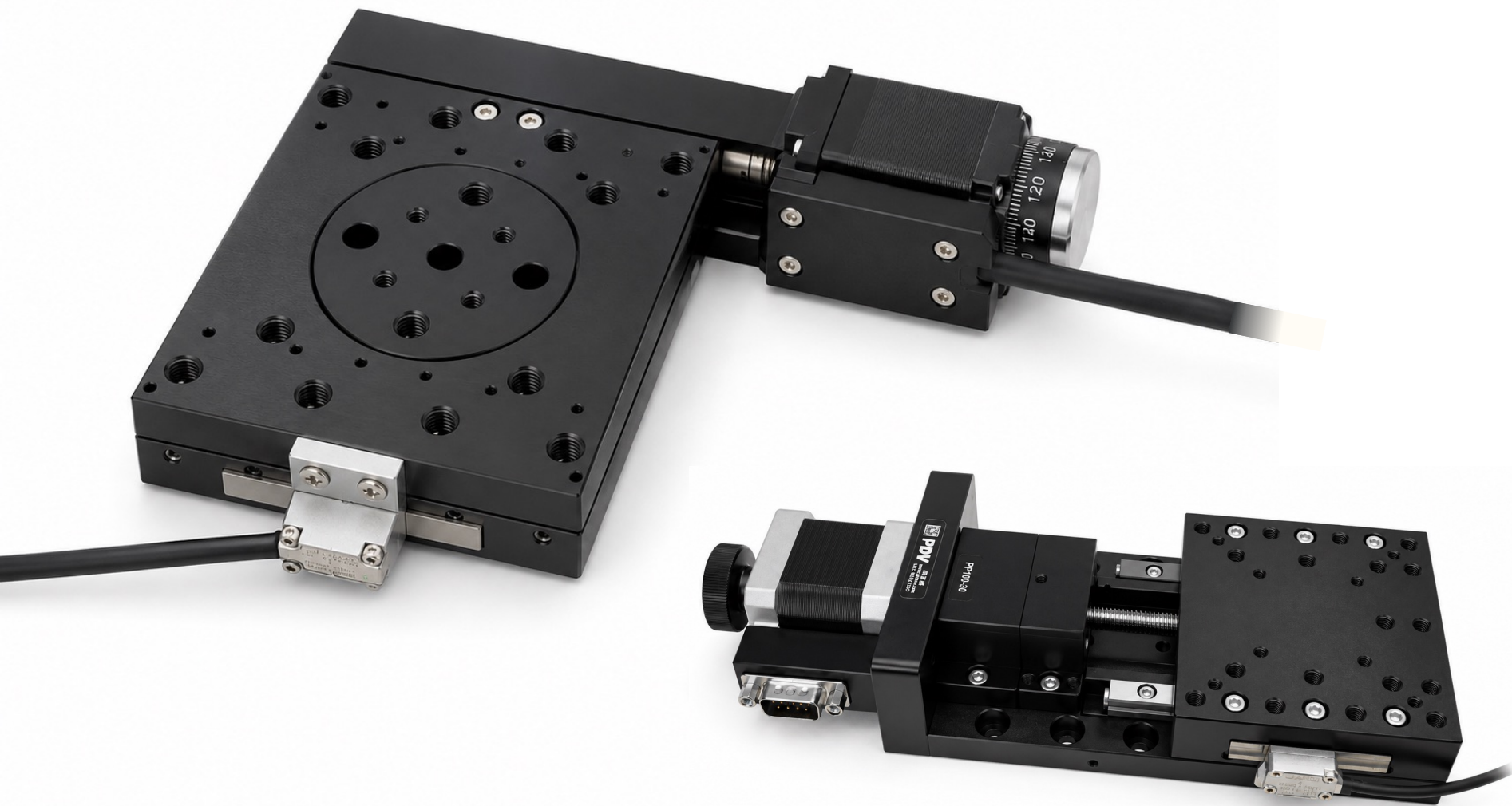
with LONG-TRAVEL RANGE

PDV01, ST01





Nano Stage With Long-Travel Range



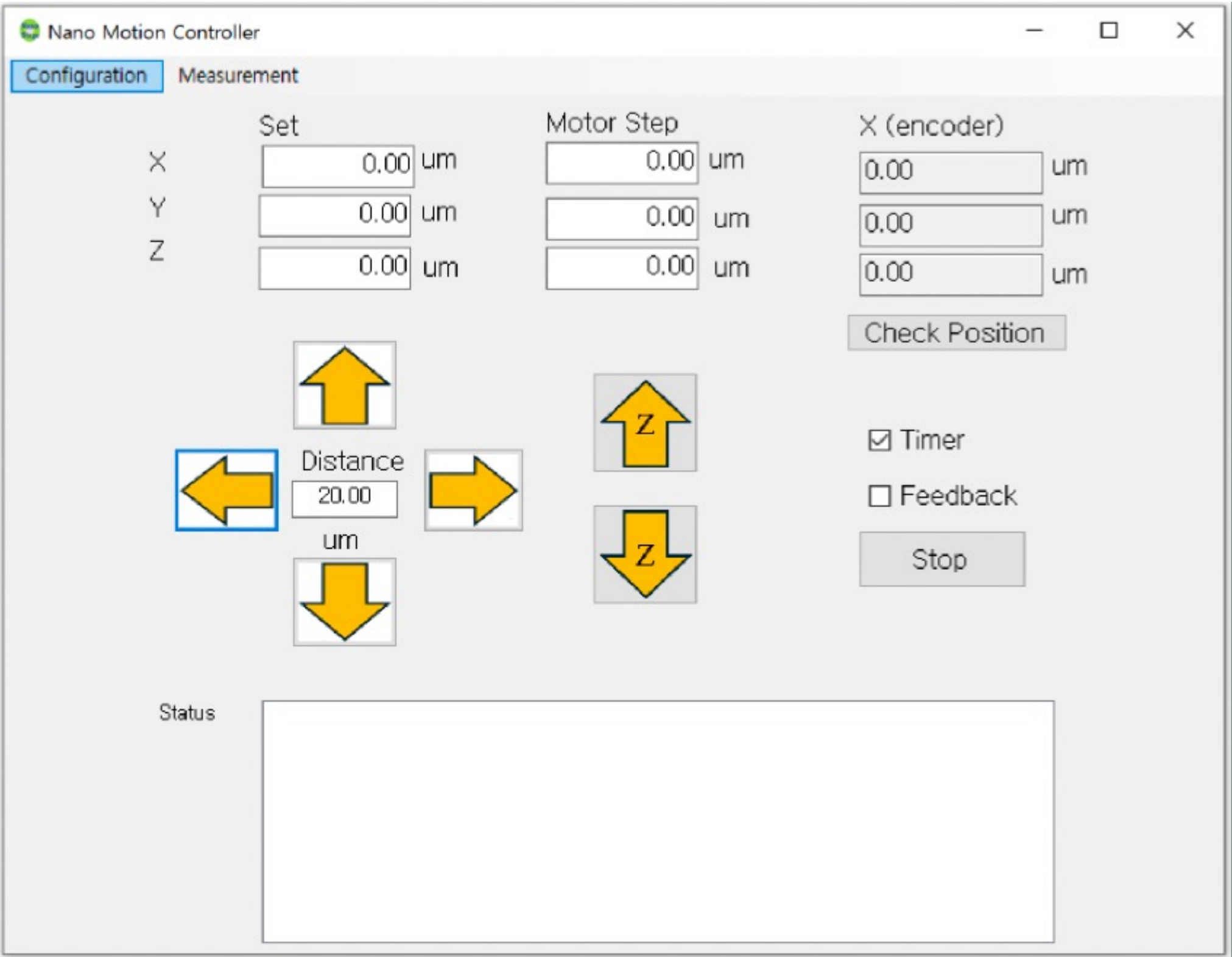
Nano Motorized Stage

with Long-Travel Range

ST01, PDV01

Product Information	Features	Specification	Performances
Motorized stage based on Step motor and encoder feedback control for 10 nm resolution Motorized Stage + Nanometer Controller Simple interface based on USB connection Step motor based long range stage controlled by encoder-based driver Affordable price: ~\$3,400 (ST1), ~\$2,600 (PDV1) Reliable performance	USB interface with pc Windows application as a Control panel User interface through UART standard Coding: support all languages (C, C++ C#, python, etc.) Serial Commands: Text-based ASCII Commands provided for full control by user application No acoustic noise: high performance step motor driver	Two models: ST1, PDV1 (drawings) Supports all combinations: X, XY, and XYZ XY model: synchronized for vector scanning Minimum Resolution: 10 nm Stability: 20 nm (ST1), 60 nm (PDV1) Repeatability: 20 nm (ST1), 60 nm (PDV1) Travel range: 25 mm (ST1), 30 mm (PDV1) Step motor & lead screw type Feedback control No Backlash - compensated y feedback No Creep - eliminated by feedback control Feedback control: Microcontroller Setting time: <100 ms	Encoder 1MHz, 10 nm (by Renishaw) Max speed: 600 um/s Step motor full step: 0.125 μm 256 micro-step Scan range: 25 mm x 25 mm Applications Optical experiments Lab-made lithography Microscopic Mapping experiments Alignment for wafer, mask, optics, etc. Profilometer 3D nano-scanner 3D nano-printer

Control App



- Real time position monitoring indicator from encoder read
- Arrow Keyboard touch for long distance motion
- Mouse click for stepwise motion
- Number insert for precise position control
- Speed control in configuration
- Feedback control parameter setting
- Real time status information notice
- Compatible for Windows 10, 11, etc

Controller

- USB interface for PC, Mac, etc.
- Compact size: 18cm x 20cm x 5cm
- 3 axis motor connection: X, Y, Z
- 3 axis encoder connection: X, Y, Z
- Power supply: 220V

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Best Cost- Performanc e Research Device Fabrication System

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- Standard USB interfaces allow easy connection to external devices.
- Enables low-cost fabrication of various experiments for small-scale labs, Industrial research laboratory, and R&D center of a major company.

Toward Independence in Research Equipment.

- Standardized components are used to allow researchers to freely modify the system for specialized research purposes.
- Built on an open-source platform, enabling customization and specialized research applications.
- Software libraries are provided so users can modify programs according to their specific needs.
- Program modifications reflecting individual user requirements are available as a paid service.
- We provide a 1-year free warranty service and support software updates for up to 10 years when PCs are replaced.

