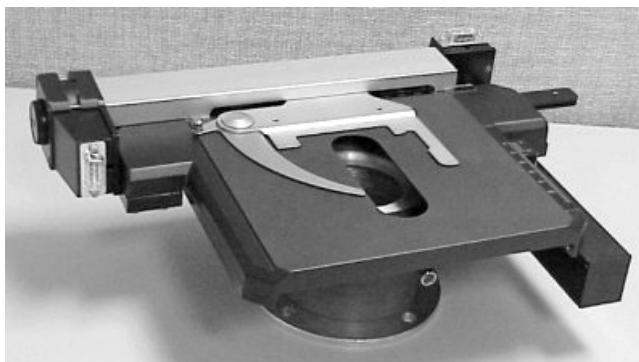


# TOFRA, Inc. (Tools for Research Automation)

microscope automation ♦ filter wheels ♦ focus drives and limits ♦ scanning stages ♦ RGB LED light sources

## Stages

The motorized stage provides high resolution and repeatable movement of microscope slides. It could be used as part of automated microscope systems with various commercial step motor controllers.



## Key Features

- Low cost.
- Low weight and balanced weight distribution. Most of the weight is on the mounting side.
- Convenient access to the slide.
- 1 mm pitch leadscrews and 1.8 deg. step motors allow high resolution positioning.
- The stage is based on a manual microscope stage.
- Two mechanical limit switches are provided for each axis.

## Specifications

(Tests were performed with IM483I microstepping controller from Intelligent Motion Systems, Marlborough, CT)

Resolution	From 5 um (full step) to 0.04 um (1/128 microstep)
Backlash	In X direction - 3 um, in Y direction - 8 um
Repeatability (unidirectional)	In X and Y direction - 3 um
Speed	7 mm/sec (at 0.3 um resolution)

## Stage Switchstick

[Stage switchstick](#) is an assembly of switches which is used to provide intuitive control of stage direction and speed. A motor controller can interpret the switch combinations as direction and speed. Exact values of slow and fast speed may be changed by computer depending on magnification. Stage switchstick allows to control stage with or without a computer.

## Ordering Information

<i>Part number</i>	<i>Description</i>	<i>2008 Price (USD)</i>
006-02	Motorized Stage for Olympus BX	2000.
006-03	Motorized Stage for Nikon E600	2000.
006-92	Cables (set of two)	80.

Specifications are subject to change without notice. Delivery 4-6 weeks ARO.