

Inexpensive ASI stages on eBay

By admin · September 2, 2015

As I mentioned in a [previous post](#), old Illumina GAIIX sequencers have a bunch of nice microscope parts in them. In particular, they have an ASI XY stage, Z stage, and filter wheel, all run by a single controller. [This person](#) on eBay occasionally sells these parts as a unit, guaranteed to work, for about \$2000. I've bought two sets of these ASI parts from him, one to upgrade the previous [manual system](#) we built, and one to upgrade an AZ100 I'm building a light sheet system on. In the first case, we used both stages but not the filter wheel; in the second case we used the XY stage and filter wheel but not the Z stage (yet).

The LX-4000 controller in these systems is an OEM unit and uses a slightly different command set than the commercial ASI controllers, but it's been reverse engineered and incorporated into the [Micro-Manager](#) driver, so setting up these stages for control by Micro-Manager has been very easy. There is a lot of good detail on setting them up in [this thread](#) from the Micro-Manager listserv.

The main drawbacks that I have seen are that the XY stage isn't encoded and is a little smaller than a standard ASI stage. It also doesn't come with a joystick, so there's no easy way to move it without going through software. The stage mounts to the microscope or table with four 1/4-20 screws, so it's easy to construct an adapter to mount it anywhere you might want. I've drawn up a stage insert for it that can be 3D printed and screwed to the stage to hold a slide; it's also easy to adapt this for any other samples you want to hold. The stage insert and an adapter to attach the XY stage to an AZ100 are in the [3D printing section of the NIC wiki](#).

I haven't seen any of these systems on eBay in a few weeks, but they're worth keeping an eye out for if you're looking for an inexpensive stage.