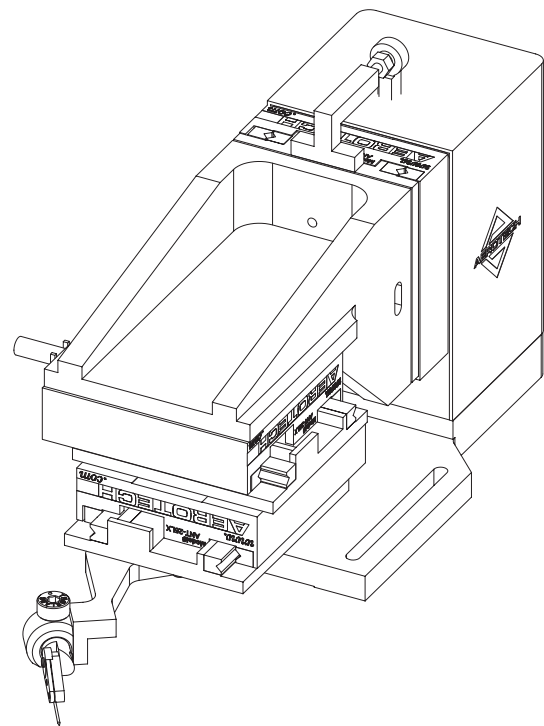


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Project Showcase



Nematode Poker Robot

This xyz-stage provides a *C. elegans* nematode (worm) with a mechanical stimulus for the subsequent observation of neural activity by a microscope. It does so, by making a thin glass needle prod the worm with a precision lunging motion of a few tens of

micrometers. The employed stages have sub-micrometer positional accuracy while having a comparatively large one-inch range of motion. Thereby they are able to both provide the small range of motion for the stimulus of the worm and can move the needle safely out

of the way, when the microscope has to be loaded with specimens.

Client: Janelia Farm Research Campus of the Howard Hughes Medical Institute.

Employed technologies: real-time motion control, high-precision translation stages, coordinated motion,