

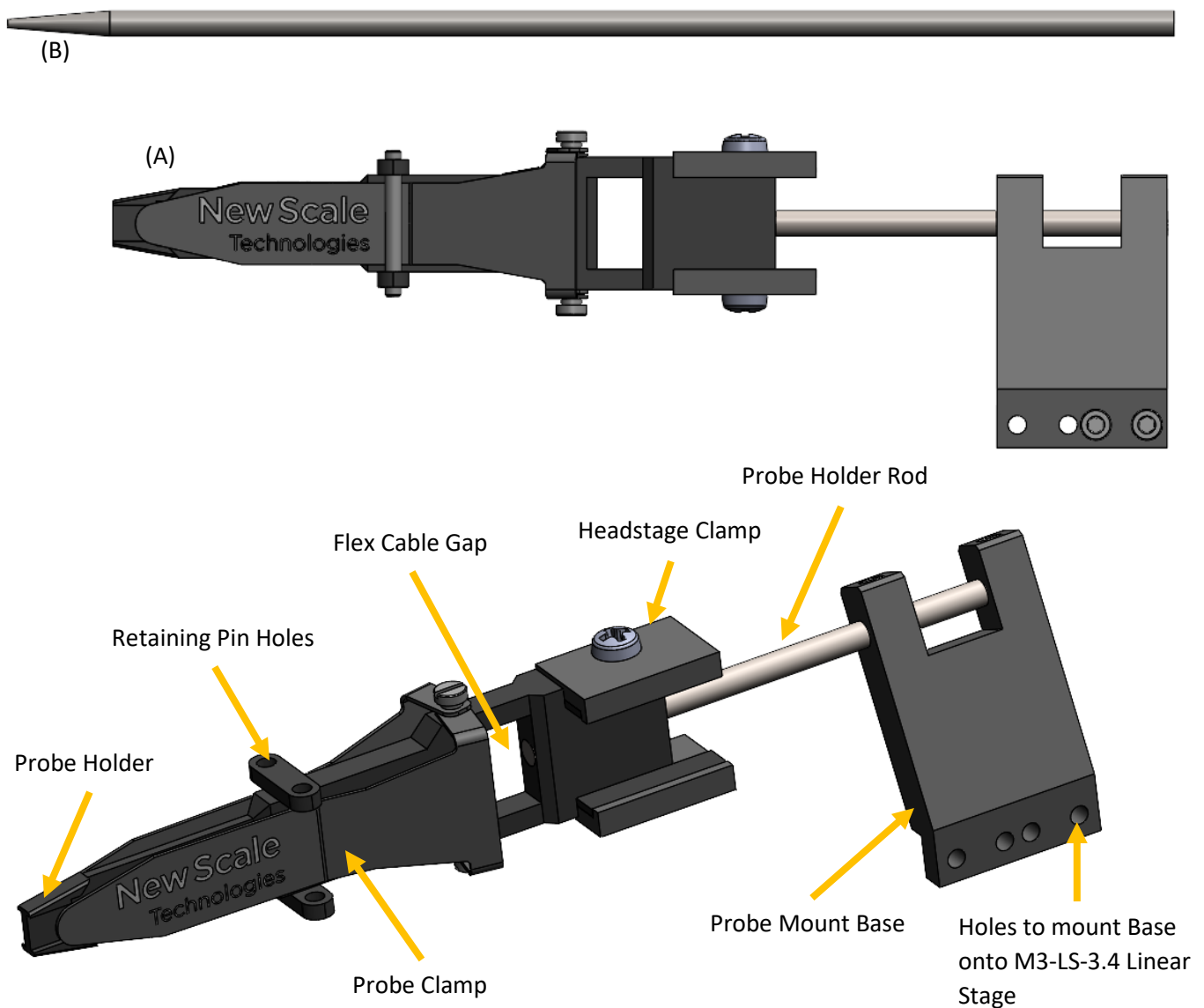
MPM-Probe Mount-NP2a

Item # 07480-3-0000

Description: A hardware kit that mounts a NeuroPixels Neural Probe (not provided) to the Z-axis stage of a New Scale M3-LS-3.4-XYZ-MPM assembly, for use with a Multi-Probe Micromanipulator 4 Degree of Freedom Arm (MPM-4 DOF Arm-Upright and/or MPM-4 DOF Arm-Inverted).

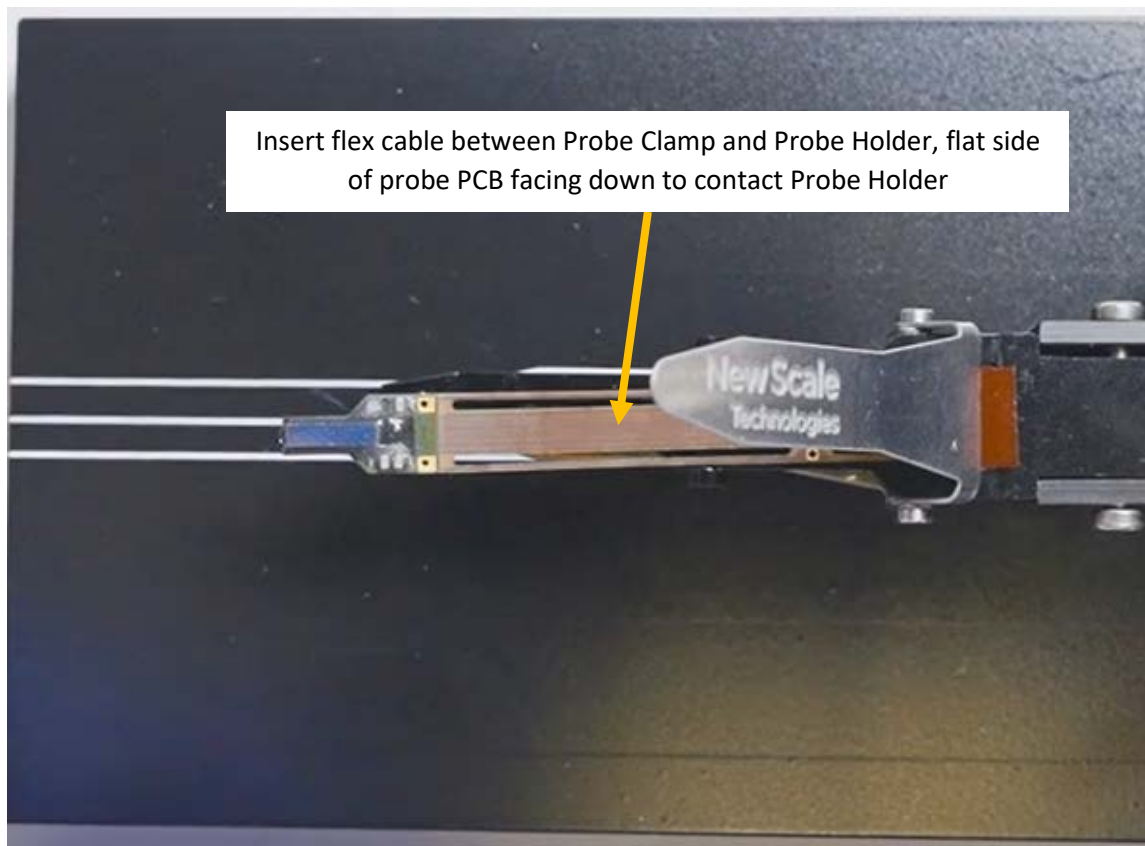
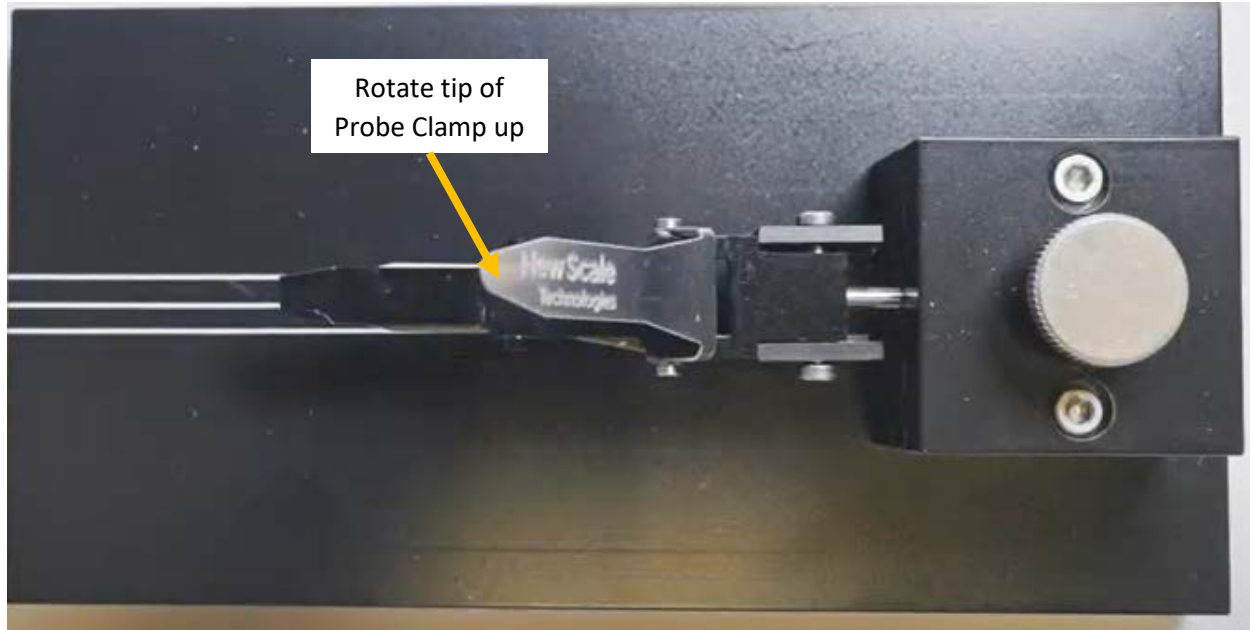
This Probe Mount is designed for Neuropixels 2.0 Neural Probes (Alpha phase) and is NOT compatible with a dovetail cap.

MPM-Probe Mount-NP2a
(A) Probe Mount NP2a and (B) steel reference probe

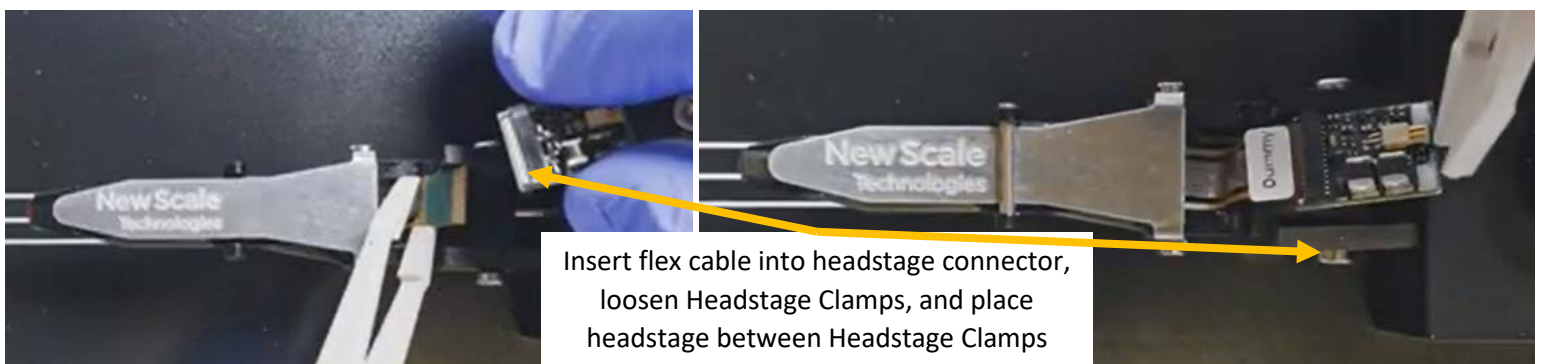
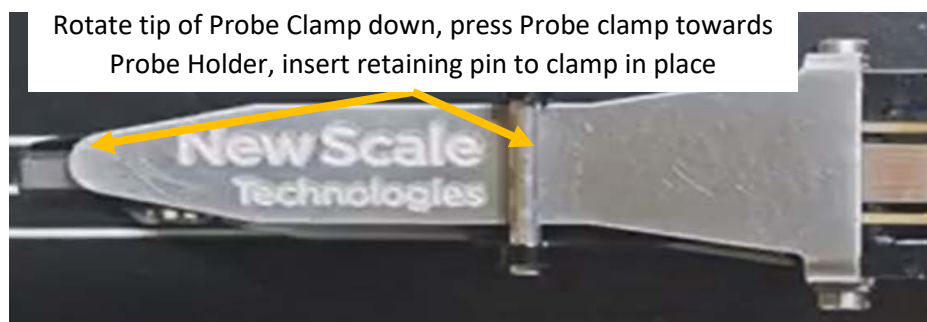
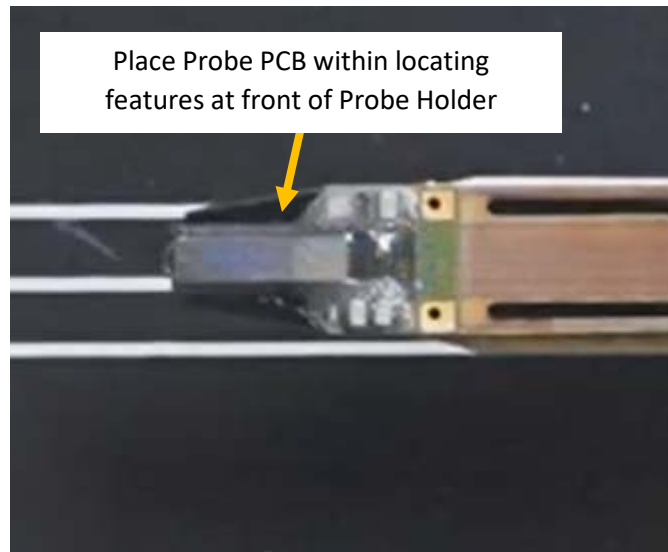


Install a single probe into MPM-Probe Mount-NP2a

Install a Neuropixels 2.0 alpha phase probes into the probe mount. It is highly recommended to use a 07680-3-0000 MPM-Probe Mount-NP2a Alignment Fixture as shown to aid in this process.

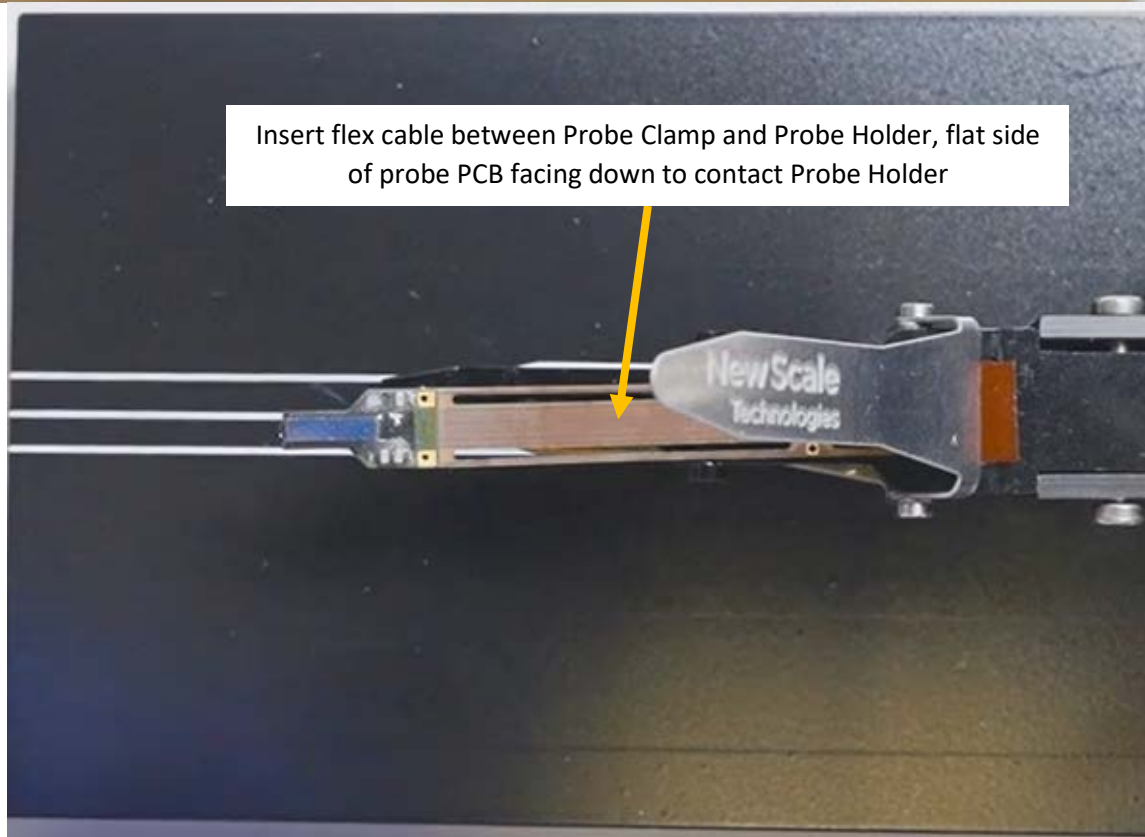
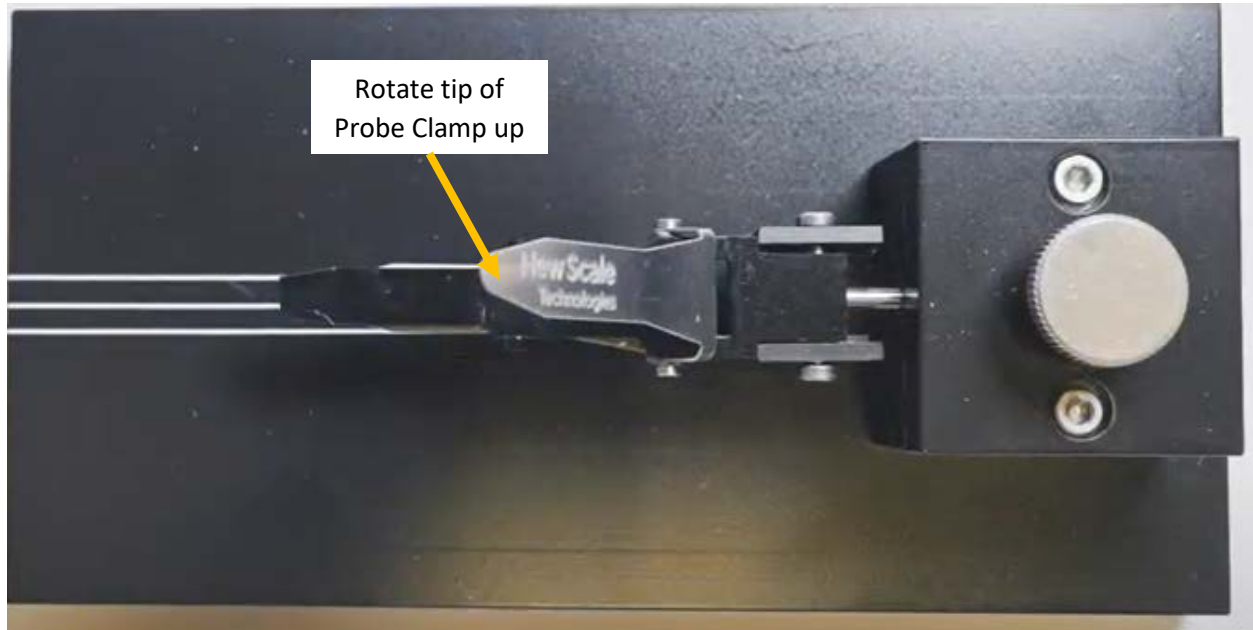


Install a single probe into MPM-Probe Mount-NP2a (continued)

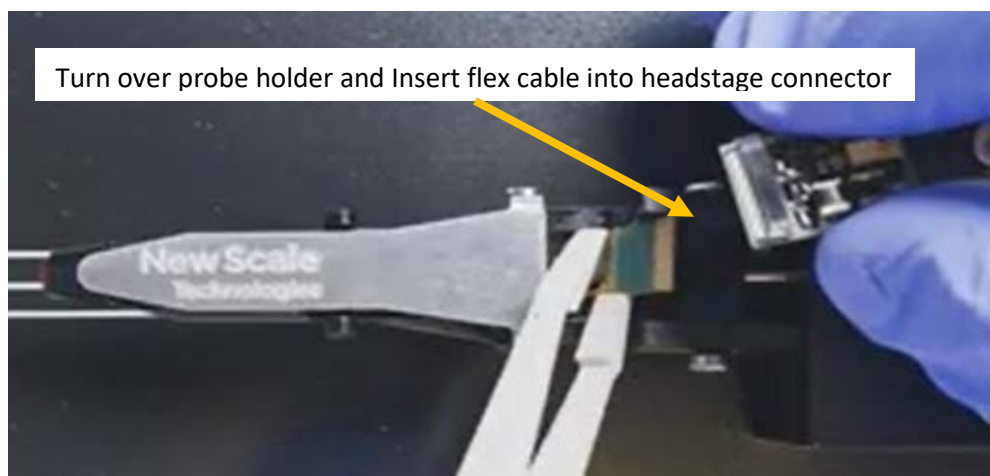
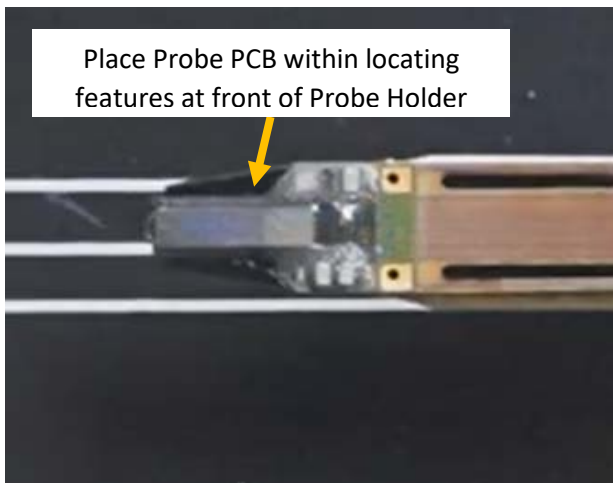
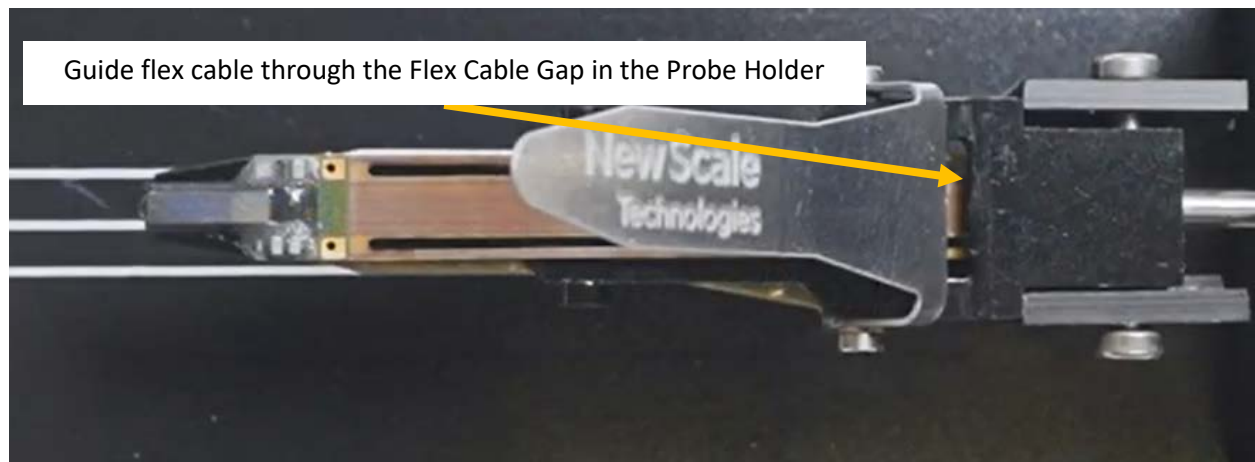


Install (2) probes into MPM-Probe Mount-NP2a

MPM-Probe Mount-NP2a can hold up to (2) probes and (1) headstage. It is highly recommended to use a 07680-3-0000 MPM-Probe Mount-NP2a Alignment Fixture as shown to aid in this process.



Install (2) probes into MPM-Probe Mount-NP2a (continued)



Now follow the steps starting on page 2 to install the second probe and secure the headstage.

Install MPM-Probe Mount-NP2a onto M3-LS-3.4-XYZ-MPM assembly

Use the included mounting screws to mount the MPM-Probe Mount-NP2a to the carriage of the Z-axis stage of the M3-LS-3.4-XYZ-MPM assembly for the default position, as shown. Holes on the Probe Mount Base are provided to install in an alternate position closer to the target if needed.

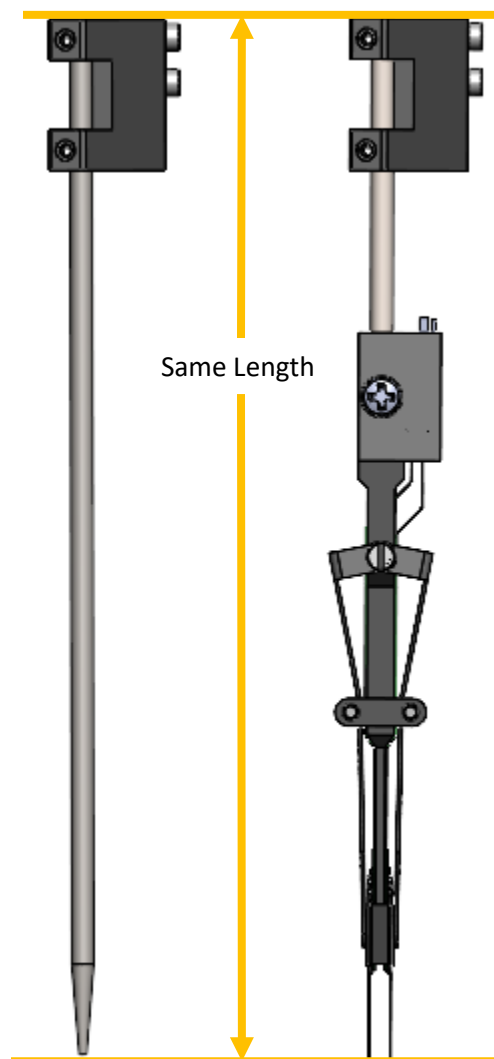
NOTE: See 07480-8-0000, MPM-Probe Mount-NP2a specification drawing for more information.



Using the Reference Probe to Pre-Align the MPM-4 DOF Arm

A steel reference probe is provided to allow pre-alignment of the MPM-4 DOF Arm without risking damage to the probe. To make the best use of the steel reference probe, the distance from the base to the tip of the probe should be known and constant. The steel reference probe is used as follows:

1. Remove the probe holder rod from the base and replace it with the steel reference probe as shown.
2. Adjust the steel reference probe to the same length as the NeuroPixels probe as shown.
3. With the Arm in the down position, complete pre-alignment of the MPM-4 DOF Arm's vertical, horizontal and insertion angle adjustments to place the steel reference probe tip at the correct insertion angle and starting location.
4. Move the Arm to the up position and replace the steel reference probe with the probe holder.
5. Move the Arm to the down position and operate XYZ manipulator to place probe and begin recording.



For questions and support, please contact:

New Scale Technologies
121 Victor Heights Parkway
Victor, NY 14564

Phone: 585-924-4450

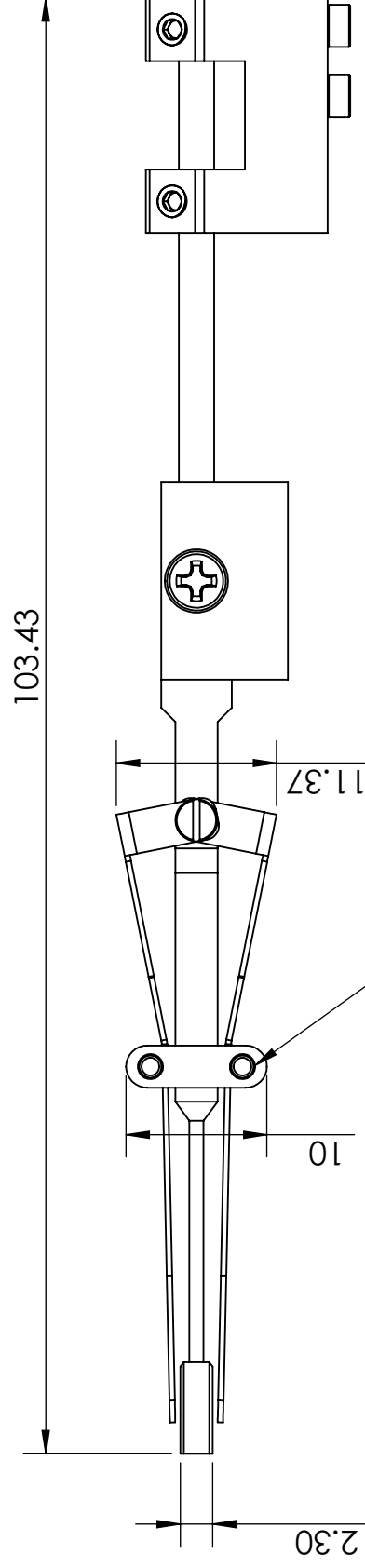
Online: www.newscaletech.com

Revision History

Revision	Description of changes	Release Date
A	Initial Release	Oct 29, 2021

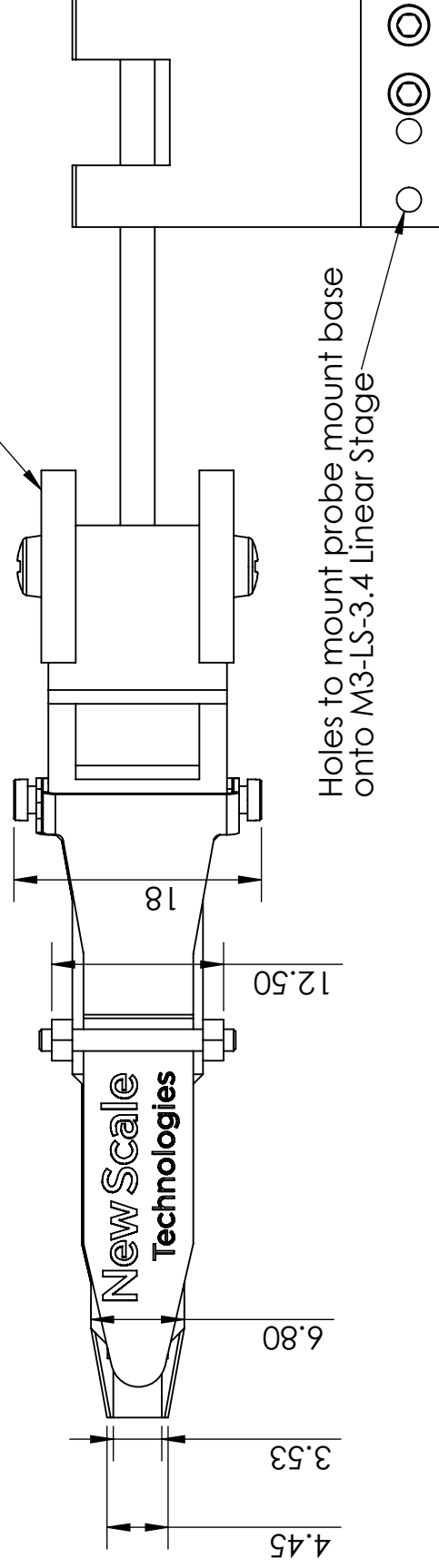
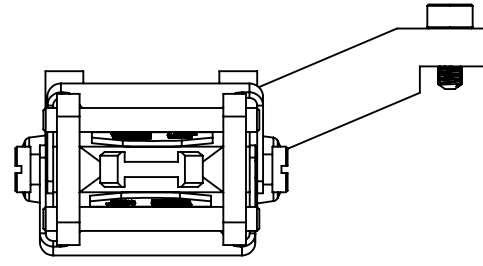
REVISIONS				
REV.	DESCRIPTION	DATE	APPR'D	Change #
1	Initial design		AS	N/A
2	Made probe PCB slot wider to allow more alignment adjustment; reduced width of pivot points of sheet metal clamps	10/22/2021	AS	N/A
A	Initial Release	10/29/2021	AS	513

Probe Mount Specifications	
NST Item #	07480-3-0000
Probe quantity that can be held	1 or 2
Orientation	Upright / Inverted
Weight (Probe Mount Only)	TBD
Total Weight with User Probe and Cabling	MAX 20 grams

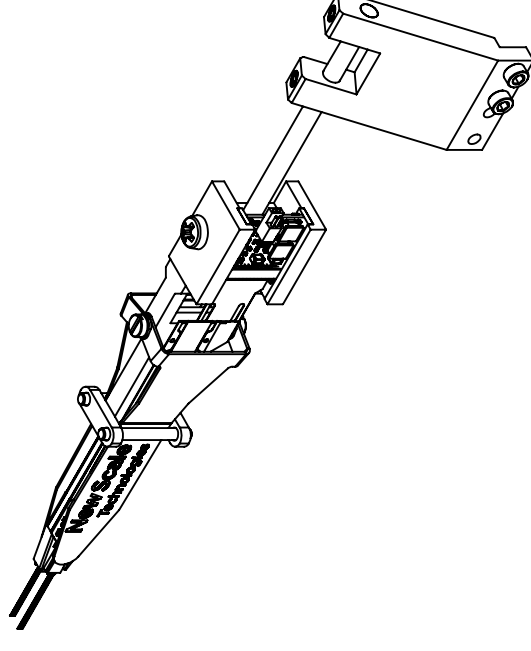


Holes for probe clamp retaining pins

Headstage PCB clamp/holder



Holes to mount probe mount base onto M3-LS-3.4 Linear Stage



NOTE: PROBE MOUNT IS DESIGNED FOR NEUROPIXELS 2.0 (ALPHA PHASE) NEURAL PROBES (SINGLE SHANK OR MULTI SHANK), WITHOUT A DOVETAIL CAP. NEURAL PROBES NOT INCLUDED. PROBE MOUNT SHOWN WITH RETAINING PINS AND MOUNTING SCREWS INSTALLED.

CONTACT NEW SCALE TECHNOLOGIES IF DIFFERENT PROBES ARE REQUIRED.

SEE 07480-M-0000 MPM-Probe Mount-NP2a Manual FOR MORE INFORMATION.

THESE DRAWINGS AND SPECIFICATIONS ARE THE EXCLUSIVE PROPERTY OF NEW SCALE TECHNOLOGIES, INC.

DRAWING NOTES:

THIS DOCUMENT CONTAINS THE PRODUCT SPECIFICATION FOR NST ITEM NUMBER 07480-3-0000

THIRD ANGLE PROJECTION	DRAWN: AS
	DATE: 9/27/2021
Compliant to RoHS Directive 2002/95/EC	CHECKED: MAD
	ENG: QX
ALL UNITS mm	MFG: JA
	MARKETING: DH
DO NOT SCALE DRAWING	SCALE: 1:1

New Scale
Technologies

PRODUCT: MPM-Probe Mount-NP2a

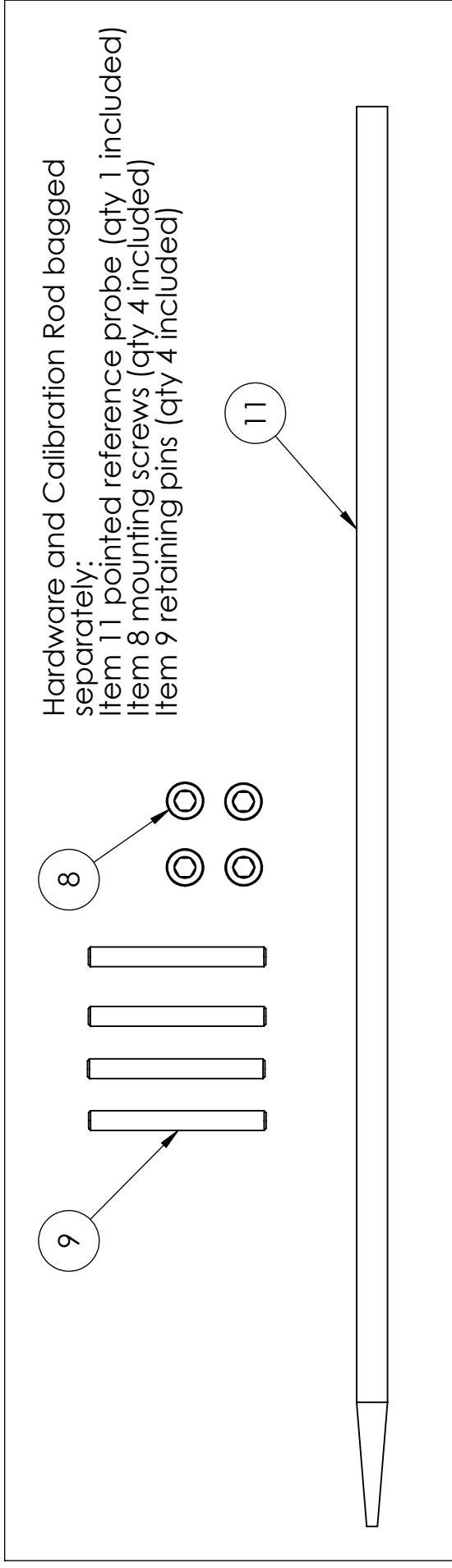
DESCRIPTION: MPM-Probe Mount-NP2a

PART NO:

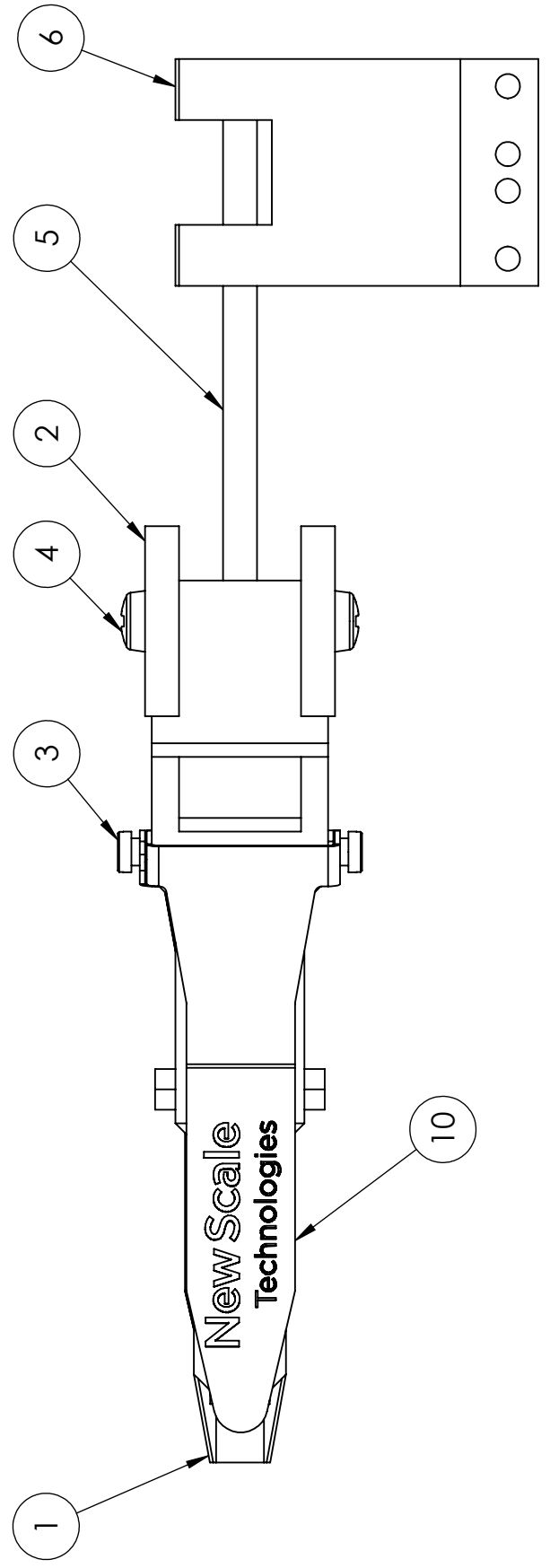
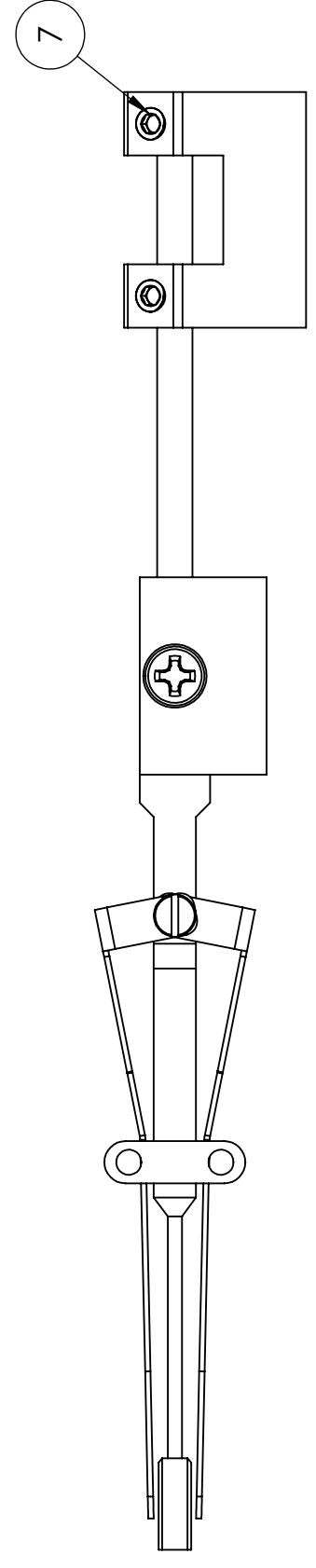
A3 **07480-8-0000**

REV **A**

SHEET 1 OF 2



B B



A A

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	07500-0-0001	Probe Holder, MPM-Probe Mount-NP2a	1
2	07501-0-0000	Headstage Clamp, MPM-Probe Mount-NP2a	2
3	07263-0-0000	Scr, M1.6x0.35x3.2mm Lg, Shoulder	2
4	01945-0-0144	SCR, CHS, M2.5x0.45 x 4mm, 18-8SS	2
5	06474-0-0002	303 SS Rod, 2.49mm Dia. X 51.43mm Lg	1
6	07502-0-0000	Base, MPM-Probe Mount-NP2a	1
7	01945-0-0127	Scr, FPS, 4-40 x .125", .050" Hex, SST (94355A130)	2
8	01945-0-0080	SCR, SHC, SS, M1.6 X 4mm	4
9	01031-0-0042	Pin, Dowel, 1/16" x 9/16"	4
10	07499-0-0002	Probe Clamp, MPM-Probe Mount-NP2a	2
11	06475-0-0001	Shaft, 114.41mm Length, pointed	1
12	07645-0-0000 (for Probe Mount NP2a)	Foam, 1/32" thick, 12"x12", adhesive backed	2

PART NO: **A3** REV **A**
07480-8-0000

SCALE: 1:1 SHEET 2 OF 2