

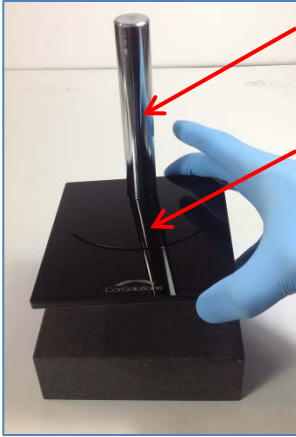


PDMS Port Creator

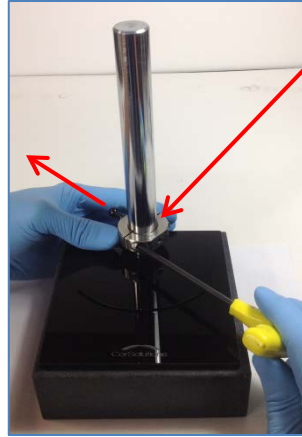
Operation Manual



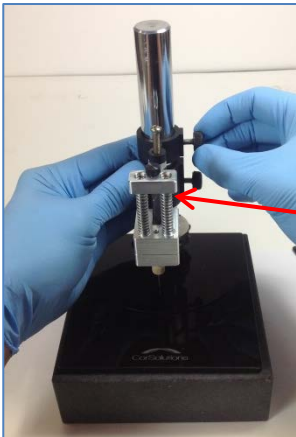
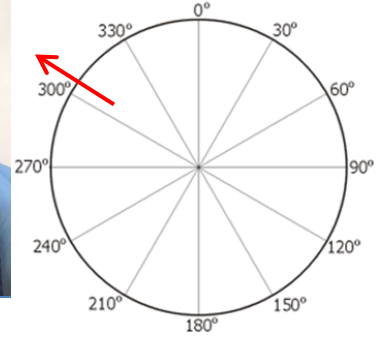
PDMS Port Creator Installation Steps



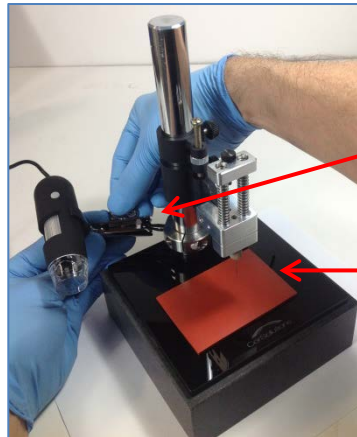
1. Install post on base
(Do not over tighten)
2. Install substrate support swivel plate



3. Install camera mount with a 3/16-inch Allen wrench - positioning swivel ball to ~310 degrees

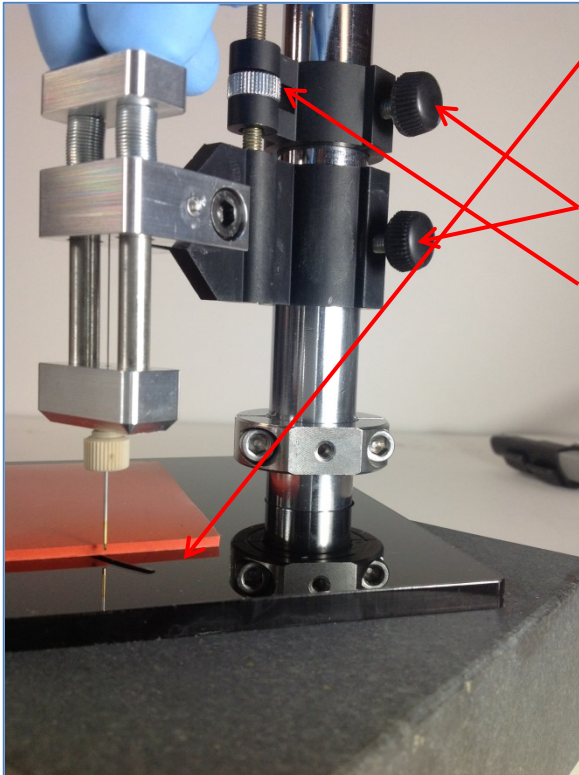


4. Install Port Creator Head Unit on the post and tighten thumb screws

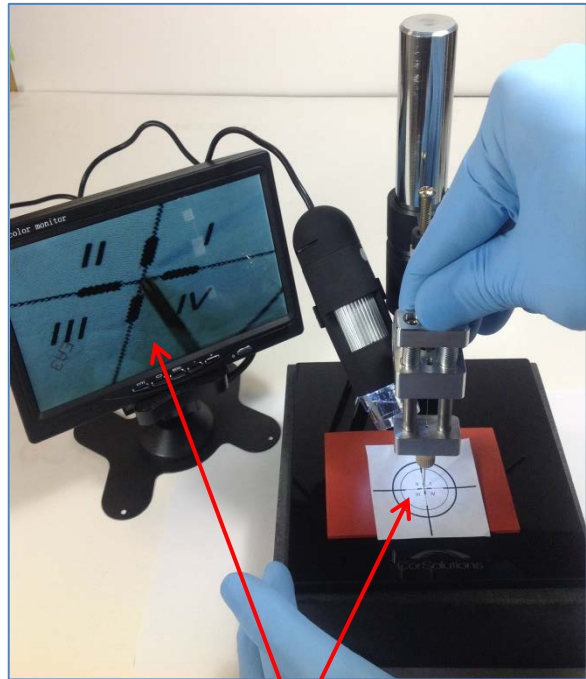
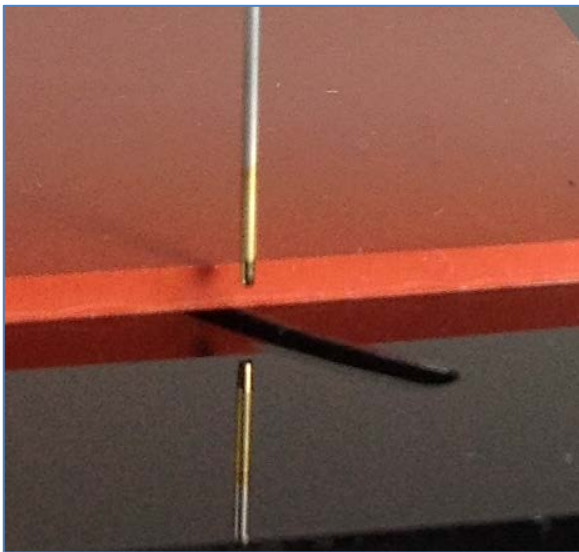


5. Install the camera on the swivel ball mount
6. Place the flexible Support Mat on the swivel base plate

PDMS Port Creator – Adjusting the Needle Height Correctly



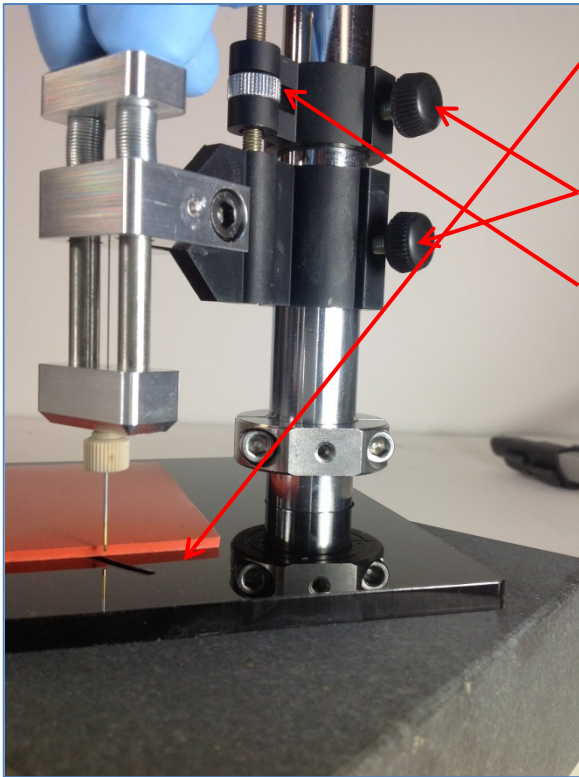
1. Rotate the plate to allow the needle to be viewed in the full down position
2. With the top Thumb Screw Secured, Loosen the Bottom Thumb Screw
3. Use the Z-positioning collar to adjust the height (Repeat as necessary making small changes at a time)



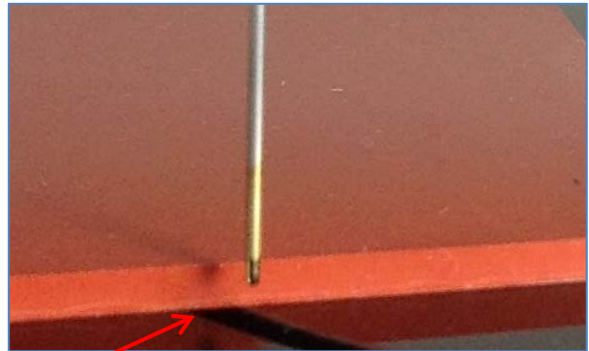
4. Position the camera as so the image is centered in the monitor with the needle in the piercing position

****Note: Adjust the Needle to a depth of ~half the flexible Support Mat thickness when in the fully downward position***

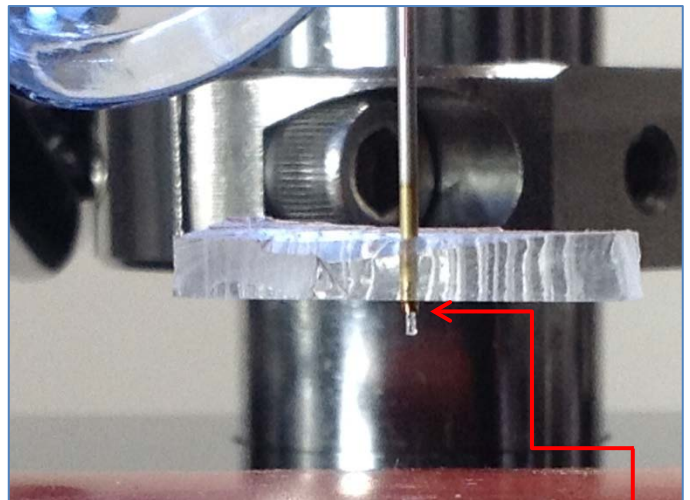
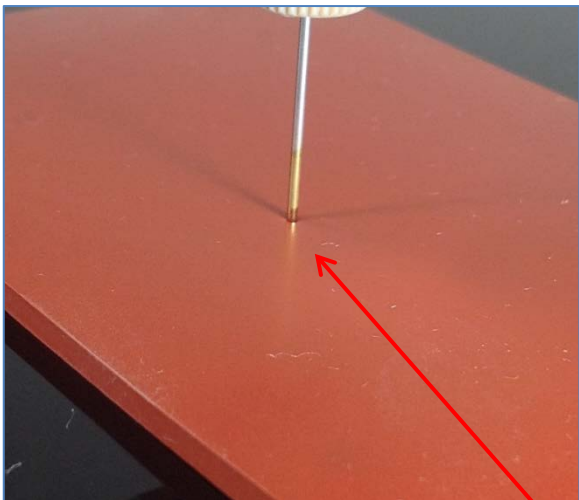
PDMS Port Creator – Adjusting the Needle Height Correctly



1. Rotate the plate to allow the needle to be view in the full down position
2. With the top Thumb Screw Secured, Loosen the Bottom Thumb Screw
3. Use the Z-positioning screw to adjust the height (This may take several times)



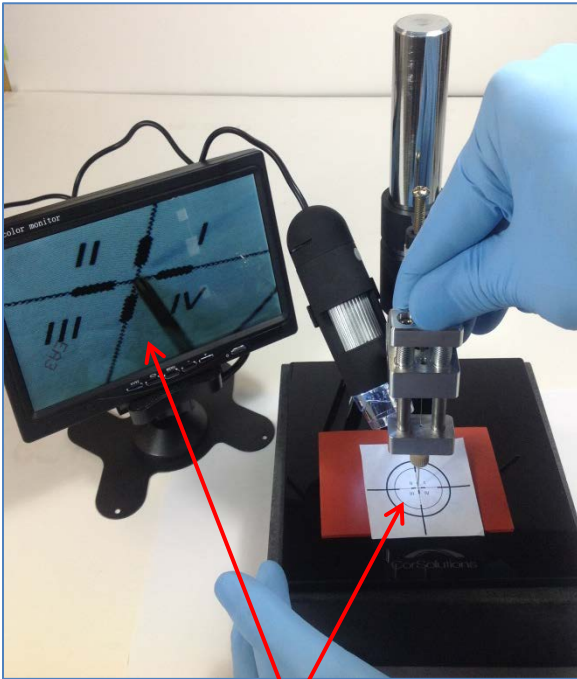
****Note: Adjust the Needle to a depth of ~half the flexible Support Mat thickness when in the fully downward position***



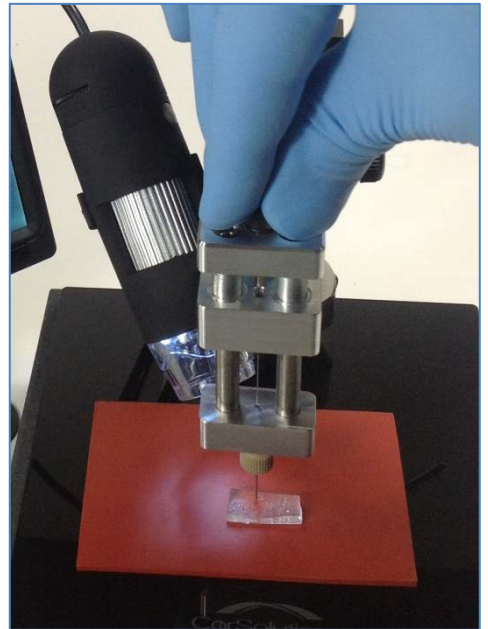
When adjusted correctly:

1. The needle will dent the Support Mat but not penetrate the Mat.
2. The needle will fully penetrate through the PDMS substrate

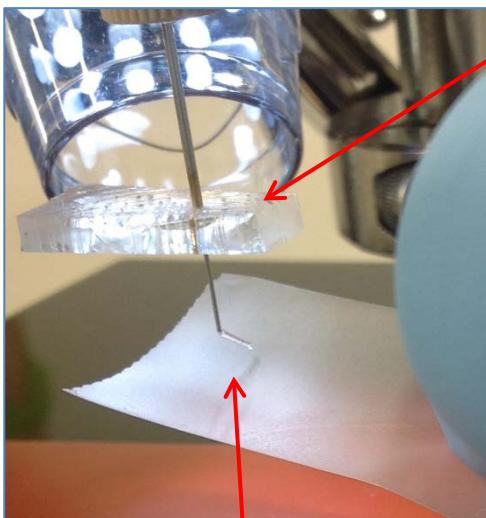
PDMS Port Creator – Creating Ports



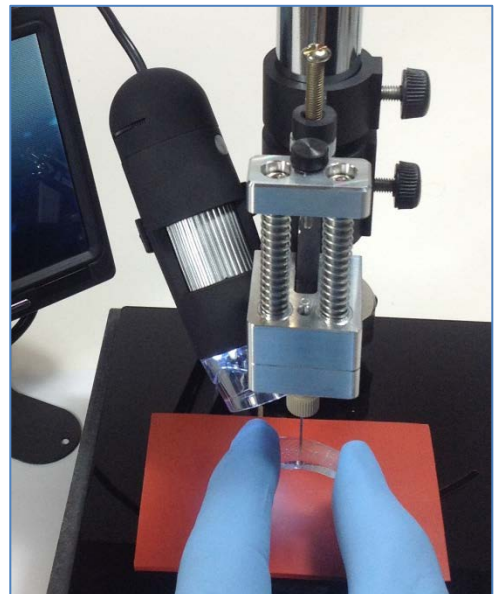
Position the camera as so the image is centered in the monitor with the needle in the piercing position



1. Position the PDMS and press the needle support all the way down
2. Allow the PDMS substrate to retract with the needle to the full upright position .

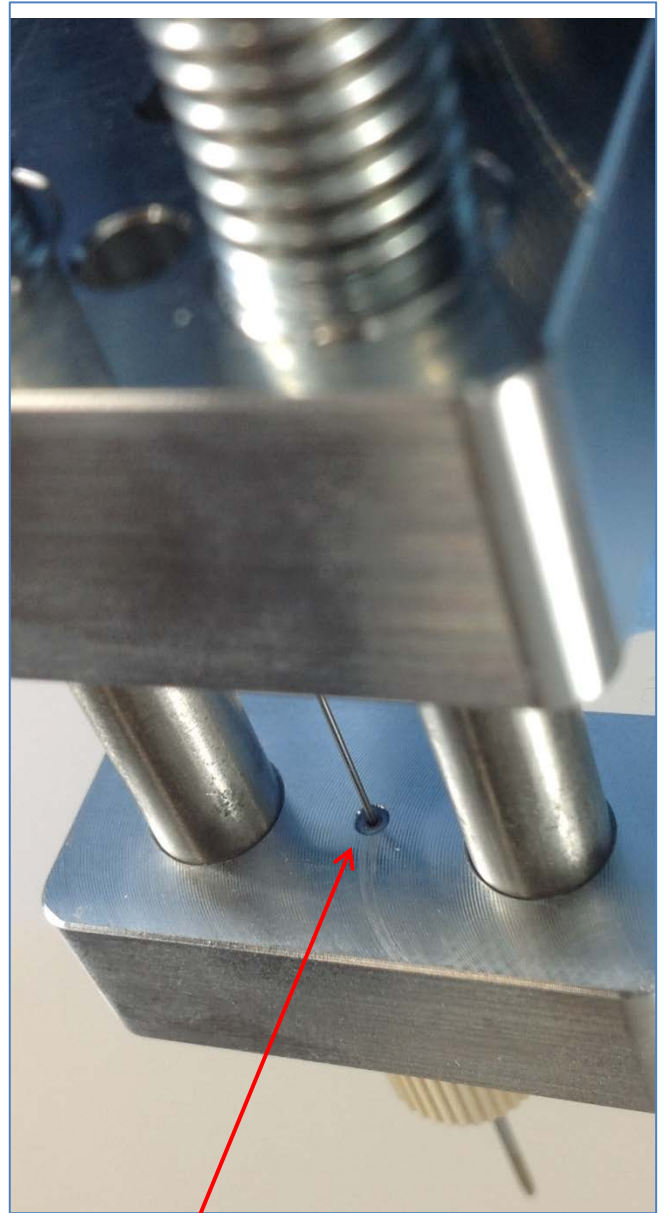
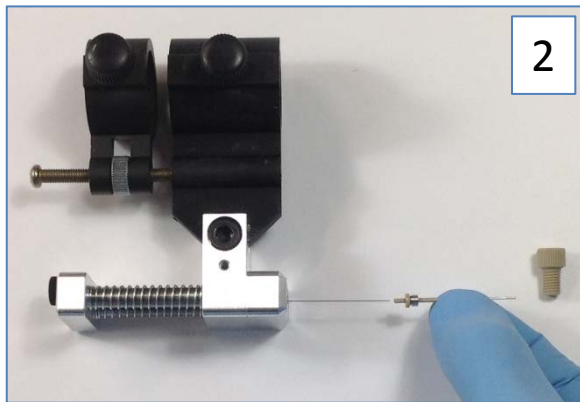
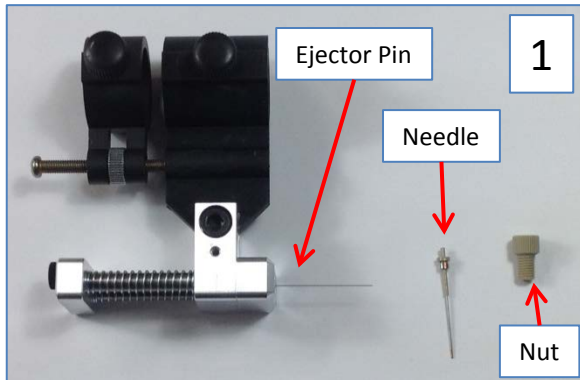


3. Optionally remove the ejected PDMS from the ejector pin with a piece of tape (sometimes the PDMS plug will stick to the bottom of the substrate)



4. Remove the PDMS substrate by gently pulling it from the needle

PDMS Port Creator – Replacing the Needle



****Note: Make sure the Sleeve and Needle are flush with the surface of the Needle Support Block***