CorSolutions

Connecting Science & Innovation

PDMS Port Creator

Perfect PDMS Ports

The CorSolutions PDMS Port Creator allows ports to be made quickly and easily in PDMS microdevices. Using the camera and monitor, simply align the microdevice, and then extend the coring needle. The system automatically removes the cored material from the port and ejects it from the coring needle. If different port sizes are needed, just remove the head of the Port Creator from the mounting post, and replace it with an additional head having the desired coring needle size.



Features

The PDMS Port Creator Includes

- Head with one coring needle
- Camera and monitor
- Base and mounting post
- Mounts for the head and camera

Options for the Port Creator

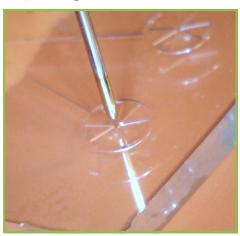
- Replacement coring needles of various sizes
- Extra heads
- Dual camera and monitor
- Coring mats

Coring Needle Sizes

- 500 microns
- 600 microns
- 700 microns

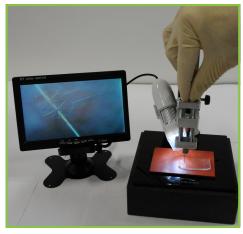
Steps to Create Ports in PDMS Microdevices

Step 1. Align PDMS Device



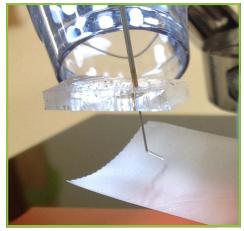
Using the camera and monitor, align the PDMS port under the coring needle.

Step 2. Extend Coring Needle



Extend the coring needle into the PDMS device.

Step 3. Retract Coring Needle

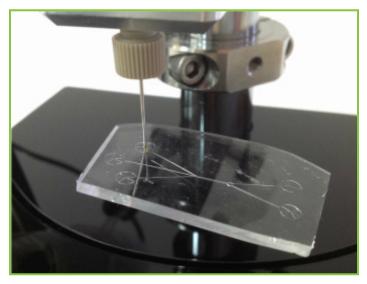


Allow the coring needle to retract. The device will remain impaled on the needle. The core of material removed is automatically ejected. Expanded views are shown below.

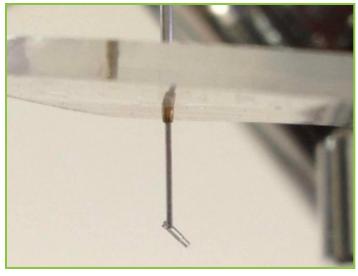
PDMS Port Creator

Steps to Create Ports in PDMS Microdevices (continued)

Step 3. *Retract Coring Needle* (Expanded)

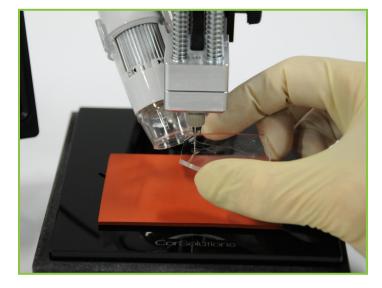


An expanded view of Step 3 shown above. The coring needle has impaled the PDMS device and the plug of removed material has been ejected from the needle.

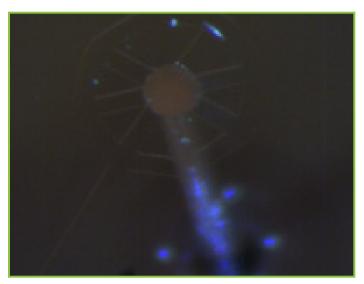


Another expanded view of Step 3 shown above. The plug of removed material has been ejected from the coring needle and hangs from the needle's end. Tape or tweezers can be used to remove the plug prior to gently pulling the device downward off the needle, as shown in Step 4.

Step 4. Remove PDMS Device



Gently pull the PDMS device downward, dislodging it from the needle.



A 500 micron diameter port made in a PDMS device.



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