

Ceramic Screw with center hole

Use ceramic screw hole as „port to the brain“ for...

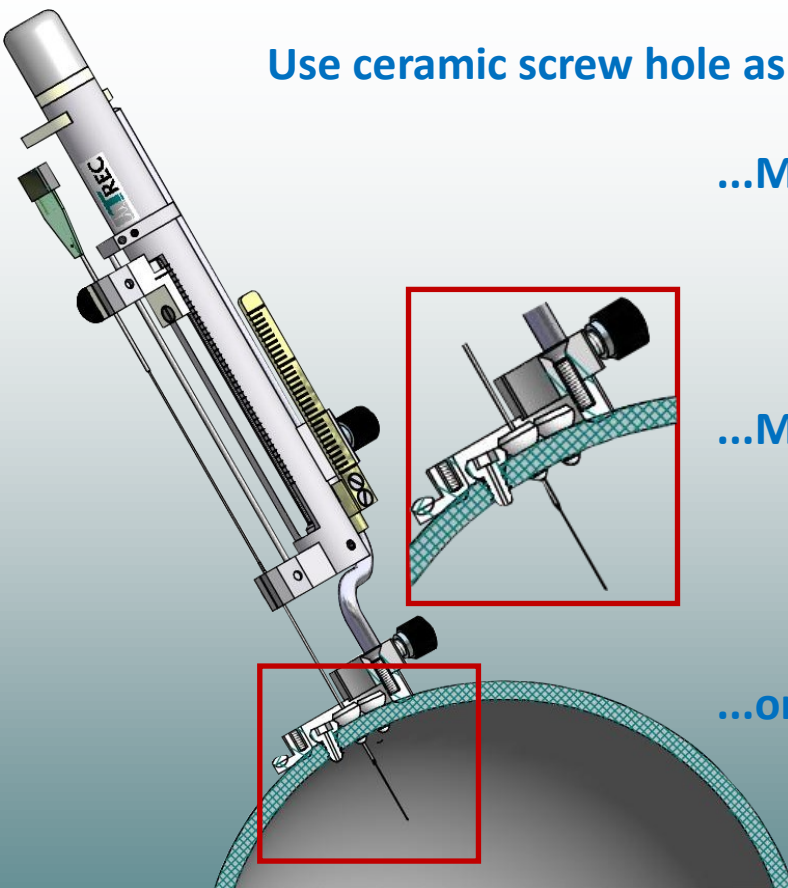
...Microdrive guide tube,...

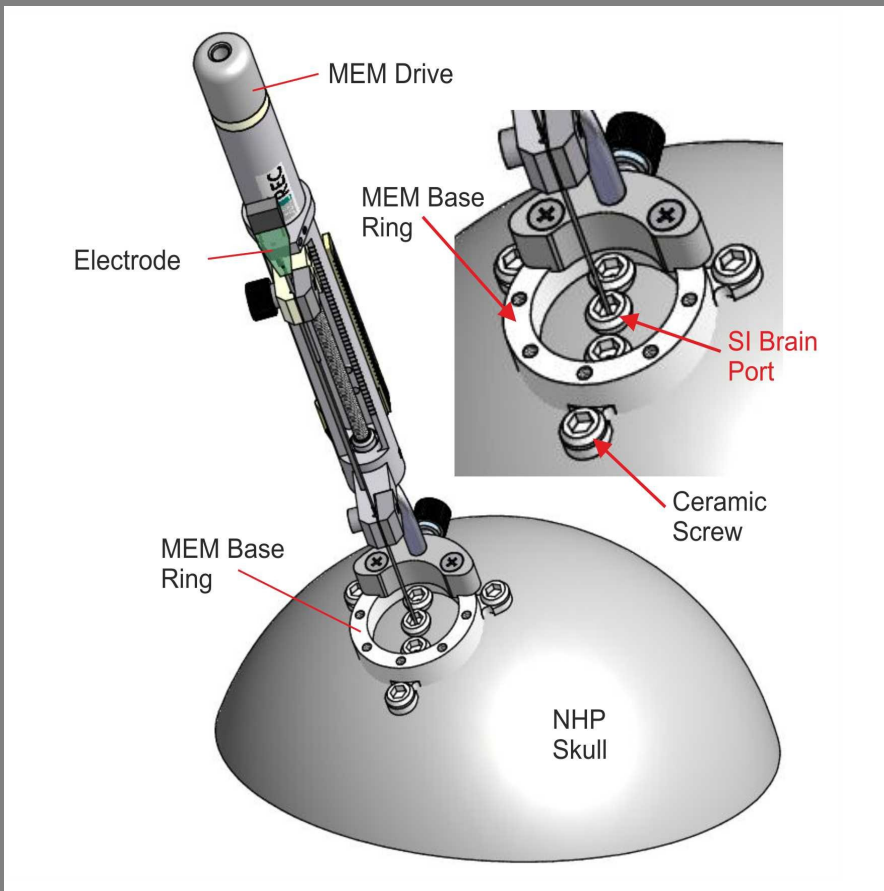
...Injection Cannula,...

...Microelectrode,...

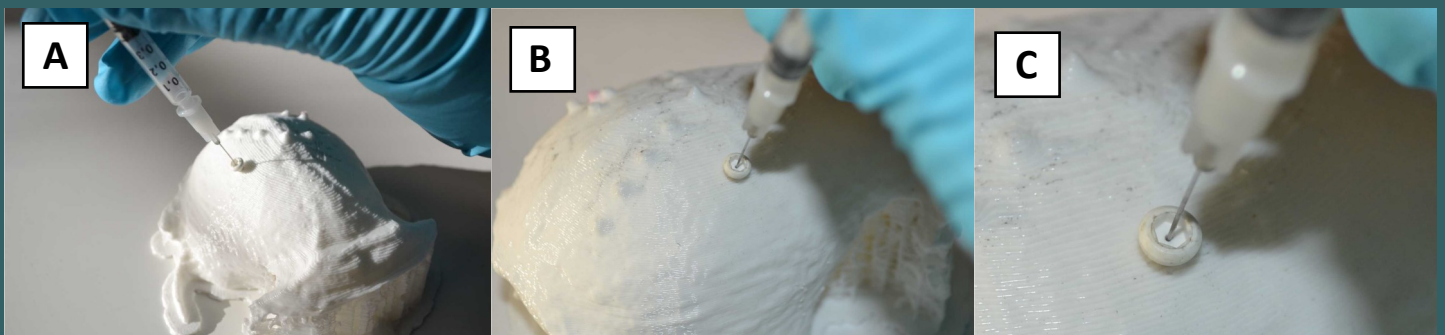
...Optical Fiber,...

...or Stimulation Electrode.





The Ceramic screw with center hole is usable as a port to the brain in animal research experiments. The left picture shows an application where a plastic base plate is fixed to the skull of a non-human primate (NHP). Three ceramic screws with center hole (SI Brain Ports) are screwed into the skull inside the base ring. A Thomas MEM microdrive is mounted to this base ring. The guide tube of the MEM is introduced into the center hole of one SI Brain Port. Using a SI Brain Port is less traumatic compared to larger craniotomies (usually required for typical recording chambers) and therefore reduces the risk of infection.



Beside the aforementioned MEM microdrive application, the SI Brain port can be used for many other neurophysiological acute or chronic applications, where one needs to introduce a microelectrode, microinjection cannula, optical fiber or a microstimulation electrode into the brain of an animal. The picture above shows the drug injection using a standard syringe with 400µm diameter through the center hole of the SI Brain Port. For the implantation of the SI Brain Port and our other ceramic screws we offer easy to use tools which are adapted to our SI ceramic screws.

SI Brain Port - the world's smallest implantable recording chamber

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