

Gonzalo Marin's in vivo neural recording setup

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The whole idea is to slide a tube inside another, using a resin or silicone to provide friction, so the electrode do not move as the bird moves around, but you can push it or pull it to change its position. I adapted the method from a paper that used tungsten wires embedded in silicon (KWIK-Sil, WPI), changing it for electrodes glued inside metal tubing and using the resin that comes with the typical Glue Gun instead of silicone. In the original method you moved the electrodes with a forceps, but that is too inaccurate. By gluing the electrode inside a tubing (a needle) which is bent in the extreme (the tip of the needle) you can push or pull the electrode with a micromanipulator. In that case, though, the bird has to be placed back in the stereotaxic. I had some mini-bolts attached to the skull so I could fix the head to the stereotaxic to move the electrodes, without the need to anesthetize the animal.

