How I made my steel snake
By
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Laser Pointer...

The laser tool is made from the following list of medals...

1/2" square tubing x 1/16" wall thickness x 14" long

3/4" square tubing x 1/8" wall thickness x 16" long. I drilled a 9/32" hole and welded a 1/4"-20 nut on the side to except a 1/4"-20 thumb screw.

The main upright rod is 1/2" x 13 3/4" long and the tube it slides in is 5/8" OD machined to except the 1/2" rod and is 1-3/4" long. I drilled a 9/32" hole through one side of the tube and welded a 1/4"-20 nut to the side for a 1/4"-20 thumb screw.

The solid stock that supports the laser is made of 5/8" round stock, I machined the tube to fit the laser I bought at Office Max which is this laser pointer...Item # 21511491. The laser's tube is 0.503 OD and the tube I made was machined to 0.512 ID, the size of the hole will press the "on" button once its slid into the holder and keep the laser on until you pull it out. The laser will not fall out because the size of the hole's ID and the pocket clip want let it slid through either.

Snake...

The snake is made up of two things, 1" square stock and 1/4" x 1" flat bar. I used 3/8" shouldered bolts to put it together and I used teflock nuts to secure it so I wouldn't have to worry about the nut's backing off or

becoming lose. The two piece's of 1" sq. stock are both 4 1/2" long, the flat bar's set's are 3", 6", and 10" long, two to each set. I used a "V" drill bit to drill all my holes for the 3/8" shouldered bolts, reason being, a 3/8" bolt is 0.375" and a "V" bit is 0.377", so you have a very snug fit with out any slop or wobble.

The front piece of 1" sq stock is bored to fit "my" Sorby swan neck hollowing tool, which is 0.630 OD on the shank. It is also drilled and tapped for two 1/4" set screws to lock my hollowing tool in place about an inch apart. The back is drilled with the "V" bit for the shouldered bolt. In the middle and on top I drilled another hole for the laser tool, here I used a 12.8mm bit for a snug fit for the laser tool and drilled it 7/8" of the way through, I didn't want to go all the way through, I wanted enough left to create a shoulder for the round stock to set on. On the side and right where the 12.8mm hole is I drilled all the way through the 1" sq. stock with a # 7 bit so I could tap it for a 1/4"-20 set screw, one on each side to lock the laser tool in place.

Edited... I first wrote I used 1" sq tubing, that is incorrect, I used 1" solid sq. stock for the snake, not the tubing.

Snake tail stock stand...

The base is made from 1/4" x 4" flat bar, 5" long. I drilled a 7/8" hole about an 1 1/2" from the end one end of the plate and welded a 1" x 1/8" wall thickness sq. tubing 5 1/2" long over the 7/8" hole. I drilled a 11/32" hole in the sq tubing and welded a 5/16" nut over the hole for my adjustment knob. I used 3/4" round stock for my adjustment bar that moves up and down inside the 1" sq tubing, I drilled it in the top to except a 5/16" thread from the 3/8" shouldered bolts. On the other end of the flat bar I drilled a 25/64" hole about 2" from the end for my T-nut knob. As far as the "T-nut" goes, it will depend on what machine you are

making this system for, I machined my own to fit my Jet 1220VS mini lathe.

Pictured below is my snake with the 6" flat bar's I spoke of above in the Snake section.

The only difference between this snake and the one Chuck (Recon) has is I didn't add the other round tubing to the laser stand just below the vertical tubing where the round stock is seen in the photo. I found out afterwards it wasn't needed.

needed.