

Hand-Forged Tools & Materials List

Most of the items are available at your local hardware or home improvement stores unless otherwise noted by a linked source. Many items have links to show you exactly what you are looking for. You can either purchase them from that link or just use the link as a photo reference to make sure you get the right supplies.

There may be an incidental item or two that I will recommend as the course goes along. Also, any other items you may need that are not listed here are basic household items that you'll already have on hand.

*****BE SURE TO READ THE STUDIO SET UP PORTION AT THE END OF THIS LIST TO MAKE SURE YOU HAVE EVERYTHING ON HAND FROM AROUND YOUR HOUSE THAT IS NOT ON THE SUPPLY LIST.***

Things that you'll need for this course:

Sheet Metal:

A piece of brass, copper, or nickel 6" x 6" should give you plenty for the project as well as a little extra for the learning curve. :)

These metals are all very receptive to the processes we will be working with in this course with slight variations in pricing. If you do not have an allergy to nickel, it makes a wonderful stand in for sterling if you are looking for the silver color.

You can purchase all of these metals in custom lengths at [Thunderbird Supply](#) or packages of 12' x 6' pieces from [Rio Grande](#).

Brass strips; .016 x 1/4 x 12"

It would be ideal to have about 5 on hand. These can be purchased individually packaged online [here](#) or you may be able to find them at your local hardware store or hobby shop. (The manufacturer is K&S Metals and the dimensions listed above will get you the ones you need. They should cost between 1.00-1.50 each).

Butane Micro torch

The [Roadpro Torch](#) or the [Blazer Torch](#) will work great. You may be able to find more cost effective alternatives which are fine. Just make sure to purchase a micro torch and not a pencil torch which is inadequate for the work we will be doing.

Butane refill canisters

You can purchase refills at any home improvement or hardware store for around \$5 or less. I suggest you purchase just one canister to start with until you have a better idea how fast you use it. A single canister should last you quite a while.

Heat protective surface

I use the 59 cent 12 inch square ceramic floor tiles from the home improvement center. Having a couple of those will give you more places to set hot things as you're working while protecting your work table.

Fire brick

You can use a "real" metalsmith's fire brick like this [magnesium block](#) or you can purchase a yard/paver brick also from the home improvement center for around a dollar or two. The yard brick will retain heat a little longer which is not problematic. It will only cause your solder to set a little more slowly if you've been doing a lot of soldering in a short amount of time and the brick is hot.

Lead free, solid wire solder

IMPORTANT: Do NOT buy “rosin core” or “acid core” or any solder that says it has flux in it already. It’s all nasty stuff to work with and breath and it will not work for you the same as the solid wire solder. I strongly prefer the Lowe’s brand “[Lenox Lead Free Solid Wire Solder](#)” (which may be a little cheaper in the actual store rather than through this link) but other brands should work. Plumber’s solder as well as stained glass solder is all fine. Just make sure it’s lead free, solid wire. My experience has been that the Lenox brand (with the purple label, not the blue) is more consistent in it’s flow and is able to be built up a bit thicker with fewer pocks than other brands.

Lead free water soluble paste flux

I also prefer the Lenox brand water soluble, lead free, paste flux sold at Lowe’s (purple label). By using a water soluble paste flux, you will only need soap and water or baking soda and water to clean it off AND you will not be breathing in a leaded flux. Blech. A paste flux holds up better under the heat of the torch than a liquid flux does so I used a paste flux most of the time. If you cannot find this flux, just use whatever paste flux you can find as well as whatever remover may be required to clean it off. I recommend you look at a stained glass supply shop

Flux brush or an old, stiff paintbrush that you don’t mind surrendering to a good cause.

anvil or steel block (check your local steel fabricator for 1/2" + thick scrap steel)

hammer

tin snips - I prefer the Fiskars brand [Titanium Nitride Shop Snips](#).

wire cutters - I like a [flush cutter](#) like found here but you can use any kind of cutter that works for you.

needle-nose pliers – short for wire working

I recommend that you use a pair that does not have teeth on the clamping edge. Teeth can often mar the metal/wire you are working with.

needle nose pliers or tweezers – long for soldering

I LOVE my [cross locking tweezers](#) for delicate work. Their very small but very strong and striaght clamping point and wooden handle will help you have good control without too much of the heat of your project-in-the-works traveling up the tool.

round nose pliers

***A kit like [this one](#) will give you all the basic pliers/wire cutters you need for this class for a reasonable price.*

flat or triangular metal file

Something along the lines of [this set](#) will be great. The wooden handles make for more comfortable working time and the wider filing edge will make the work go a bit faster. You should be able to find something like this at a hardware or woodworkers supply store. Look for “fine tooth”.

ruler

awl - Something like [this](#) will work great but so will a big nail to start. ☺

center punch

You’ll need this to prepare to drill through metal. The slight dent it will make in your project when used will give the drill bit a little divot to settle in while grabbing the metal. This prevents the drill bit from sliding around on your work and marring the surface.

There are two kinds of center punches: the kind you place on your work and hit with a hammer to create a dent like [this](#) and the kind that is spring loaded like [this](#). Either will work but I prefer the traditional one that you hit with a hammer. I find that it usually gives me a slightly deeper dent to start with. YOU CAN ALSO JUST USE A LARGE NAIL.

Brass, copper or sterling wire

All will solder well so which ever you prefer for the look and the cost is fine.

Get yourself at least 5-10 feet each of:

18 ga.

22 ga. (optional)

Most hardware stores will carry small rolls of copper and brass which are very cost effective when learning the soldering techniques we'll use those for. Purchasing wires from a hardware store versus a craft store will increase your odds of finding raw metals (no patina or special finish on the wire) which is important for the techniques we're going to be doing.

1 sheet each of 220 grit and 400 grit wet/dry sandpapers.

(these are usually black and sold with the other sandpapers in the painting section of the hardware store).

2-3 green Scotch Brite scrubby pads

You can find these in the cleaning section of any major department store.

Novacan Black Patina

You can purchase this [here on Amazon](#) or at [cheaper at Glassmart](#) as well. (Novacan Black is also available at stained glass supply stores) There is no need to purchase this if you do NOT like a darkened, patina'd look to your metals.

Baking soda (like you use to cook with)

Toothbrush (don't plan on using this on your teeth)

Dousing cup or bowl (glass, metal, storage plastic, disposable...whatever you have on hand)

Rubber stamps

You'll need the kind with the traditional red rubber surface, not the clear acrylic stamps. Any textural or pattern stamps are great as are stamps with bold designs.

Drill or Dremel tool

At some point you may want to create holes in your work for connections other than the solderable connections I will be teaching early on in the class.

The dremel is easier to use for what we will be doing but if you already have a drill gun on hand and don't want to invest in a dremel right now, it will work well enough. Any type of dremel will work. Here is a good little affordable [cordless Dremel](#) that will last you a good long while and is very useful for many things.

1/16 inch drill bits

Available at your local hardware store.

Beads, Found objects, and miscellaneous ribbons and fibers

OPTIONAL:

Brass Bezel cups

Though you'll only need one for the final project, I recommend you buy 4-6 to have on hand to practice

with or to make more than one version of the project as you go along. I like oval in about a 1" or slightly larger size in the widest measurement but it can certainly be a bit smaller or larger depending on your preference. [Here is a listing on Etsy](#) as an example of what to look for (you want brass, not brass plated).

To purchase a kit from Stephanie, email her at stephanieleestudios@gmail.com for information.

Essentials Kit Includes:

Butane Torch
1.7 oz tub of water soluble paste flux + flux brush
1 sheet of 6" x 6" sheet brass
1/2 lb. roll of lead free, solid wire solder
1 lightweight fire brick
1 pair of Tin Snips
4 Brass Bezel Cups
4 Brass Strips

Kit Price: \$110.00 + shipping

Basics Kit Includes:

1.7 tub water soluble past flux + flux brush
2 sheets of 6" x 6" sheet brass

1/2 lb. lead free, solid wire solder

Kit Price: \$54.00 + shipping

Studio Set Up

The studio or working space set up that you will need is fairly simple and straight forward.

1) First and foremost is a space with good ventilation (but not strong wind.) This could be in a room with a windows or doors on both sides of the room, a room with one window and a fan, or an outdoor space.

2) Secondly, you want to create a nice buffer of fire-safe space around you. Don't set up near your fabric stash or paper collection. I'm just sayin.

3) Having water nearby is always handy. This could be in a neighboring room with a sink or as a tub of water near your workstation.

4) A sturdy table is good. You want one that isn't going to wobble much when you're hammering. I like to put an old washcloth or folded paper towel underneath my steel block to buffer the sound and vibration when I hammer. There are official steel block [leather sand bags](#) to serve as a sound buffer that are great. They do make a big difference in the sound of your hammering as well but a rag or cloth will serves you well enough too.

5) Fire extinguisher. Have one handy. Just in case. I've never had to use mine. In fact, I need to relearn HOW to use it, but it's important to have one on hand just in case...especially if you forget #2. This also goes for a first aid kit. Keep aloe vera, lavender oil or your favorite healing ointment on hand in case you burn yourself. It's not likely, but it is possible.

6) Protect your surface. This is where those tiles come in. I have two big ones on my table side by side with the fire brick on top of one of them. This way, if I accidentally overshoot my brick with the torch or set something VERY hot off the brick, I'm sure to keep my table safe. I'll be showing you my studio set up so you'll have a better idea of what works for me and how it might work for you.

7) Keep you're tools and supplies handy. It's so much easier to have a nice efficient flow when you have what you need on hand. Creativity and inspiration likes efficient flow.