

Sam Student Materials and Tool List - MOTM 2025

Materials

Instead of a set kit, I bring materials for us to use and tally up what you are spending along the way.

This includes:

22k sheet for bezel strips, gemstones, and everything else mentioned in the list below. Students are welcome to bring their own materials and stones they want to work with and can get a sense of what is needed from the material list. Generally students spend \$100-\$400.

22k Gold Sheet 26-30 gauge

I use different thicknesses depending on the project and how much a piece will wear.

For settings that will be made into rings or bracelets, that take more wear and tear, something thicker like 26 or 28 gauge is nice.

I find 28 or 29 gauge nice for pendants and earrings.

I use 30 gauge for earrings as well, but you might want to start out a little thicker so you have more wiggle room when cleaning up the settings. With the thinness of 30 gauge you have to be very careful you are not removing much material when sanding them clean.

Using these thinner gauges allows us to get those tight corners when making settings for geometric shaped stones or something pointy like a long tear drop shape or kite shape.

I buy larger sheets and cut my own bezel strips. This way I can group some gems into similar heights and work off a strip for multiple stones. This also allows me to get just the right height of bezel I need.

18k Gold Sheet 28-30 gauge

This is if you want to do a piece in all gold. I mainly use 28 gauge sheet to cut strips for interior bezels or seats for faceted stones and the bases to my settings. This will give the settings strength and structure.

I like to use 18k palladium white gold for the bases of many settings so the color of the transparent stones doesn't change color. Sometimes yellow gold looks good behind stones.

Tools

People are welcome to see and try out my tools if they don't have something or prefer to see something in action before buying them.

Flex Shaft

There are flex shafts available at Wildacres but there may not be enough for every student. Please bring one if you can.

Bench Pin

There are bench pins available at Wildacres but there are not enough for all students. Please bring one if you can.

Pliers

These are my main tools for forming all the bezels, so please bring all you have along. Flat 5mm wide and 3mm wide are what I use most. Half round. Chain nose. Round/Chain Nose are some of my favorite pliers; they have the round spike on one side and a tapered flat shape on the other side. Otto Frei part #146.113 \$26.95 Currently out of stock, but they said they have an order in for more.

Solder Snips

(Otto Frei part #153.805 \$7.95 or #153.804 \$15.95 I use these for snipping solder, but also to trim the tops of bezels around rough, raw, or uneven surfaces of gems or pearls. I also use these to trim the bases off the settings after soldering.

Saw Frame & Blades

I like 3/0 blades in general.

Files

Flat 6" with a handle for cleaning up the bases after trimming

Needle files. Half round, round, triangle, square are what I use most. I like a 4 cut on these, but other cuts will work. We don't want them to be too aggressive though.

Sanding Sticks

220, 400, 600. Any other finishing abrasives for the flex shaft are handy too. I like the 3M radial wheels in 200 and 400. If you want to make rings you'll want the appropriate finishing items for the inside.

I tend to do a somewhat more matte/brushed finish to my work which I will discuss. If you want a higher polished finish, you'll need to bring some wheels and compound.

I use a brass brush like Otto Frie #116.311 \$20.35. I like the plastic handle rather than the wood because it doesn't warp over time like the wood can and it lasts much longer. I use this with dish soap for my final finish unless my pieces are going into the magnetic tumbler.

Hammers

Goldsmithing hammer

Chasing hammer if needed for use with setting tools

Nylon dead blow hammer if you like those for forming ring shanks

Setting Tools

Bezel roller, that mushroom slice looking one

Steel setting punches, whatever you like to use.

Burnishers

Scribes are useful as well

Mandrels

Round Super Mini if you want to do real small settings, I'll bring mine with. Otto Frie #143.008 1.5mm-5.0mm \$18.95 Round Bezel Mandrel Otto Frie #143.069 2.0-12mm \$22.50 I use this all the time.

Ring Mandrel with no grooves or markings. I don't remember where I got this, but it is handy to have.

The only other shape I use once in a while is the square bezel mandrel and I'll bring mine for people to use. If you already have one might as well bring it along.

Steel Block

3" or 6" I like to lay stones on these to measure them for heights. Also handy if you need to planish the back sheet flat.

Dividers. Calipers.

Good dividers are important for finding heights of bezels and interior seats for faceted stones. I use these to mark the height of bezel strips I cut from the sheet metal.

Tweezers

I like the 00 stainless steel tweezers from Otto Frie #157.075B \$2.75. I use these a lot for marking bezel lengths and for solder picks, placing solder, pushing inner seats out of settings,

and all sorts of things. They're cheap so I grab new ones if the ends get crusty, but they hold up for a long time.

Serrated gem tweezers like Otto Frie #157.929 \$10.20 or #157.934 \$7.95 are handy for small gems that won't go flinging out of your tweezers as easily. Not necessarily needed, but if you have some bring them along.

Cross Locking Tweezers and Third Hand. These are needed if you want to solder ring shanks onto settings for stacking rings. Otherwise they are optional, but they can be handy if you need to hold down a setting and move something around during soldering.

Soldering

I like the solderite boards Otto Frei #154.200 \$11.35 6x6" I find they reflect the heat nicely under the settings. I scribe a grid into the corners for lining things up and keeping things straight while soldering pieces together or lining up ring shanks onto settings and keeping everything square. They last for quite a while and when they get crusty and burnt up you can flip it over and use the other side.

I like to use fine paint brushes for flux brushes, a number 2 and 00.

I personally use the European blow torch for soldering. I'll probably bring mine along and some extra mouth pieces if people are unfamiliar and want to try it out they are welcome to.

Miter Jig

If you have one do bring it along. They aren't always cheap, but I use mine for tube setting stones. Looks like there are some less expensive ones, but this is what I have and am familiar with. Otto Frie #126.499 ASIC French made \$209.00

Now I'm curious though #126.485 for \$62.00 might work just fine for this trick.

Burs

I mainly use stone setting burs for adjusting inner seats for faceted stones (it's not that often if we are doing them right, but good to have just in case) and for tube setting stones. If you have some bring them, but I will also have some extras. 1.5mm, 2.0mm, 2.1mm, 2.5mm, 3.0mm are the most common sizes I use.

Sanding discs

I like Moore's sanding discs for clean-up. The medium grit is what I use most, but the fine grit is also nice - Otto Frie #111.928 & #111.927 \$3.80. They snap onto these mandrels for the flex shaft - #110.741 \$5.95 sold in a 3 pack. I like to keep one with the grit up and one with the grit down. I'll bring some extras along.