

## Stone Setting

### With Curtis Arima tools and materials list.

This is a list of tools and materials for the stone setting workshop. I am giving you several options for each tool. Choose the ones that are best for you. Please contact me if you have any questions.

Bring 2/0 saw blades

Your favorite saw frame and any of your favorite files

Burlife or other wax for burs and saw blades

Bring in any stone setting challenges or problems solving you want to discuss on the second day. Unresolved pieces with gems and/or stones you don't know how to set.

I look forward to working with you.

### For stone setting kits:

#### **Loupe 10 x**



Any 10 loupe is fine, but here are a bunch of choices.

<https://www.ottofrei.com/Otto-Frei-18mm-Diameter-10X-Triplet-Loupes-With-Rubber-G>

<https://www.ottofrei.com/Bausch-Lomb-Hastings-Triplet-Loupes>

<https://www.riogrande.com/searchresults#q=loupe%2010x&t=products&sort=relevancy&layout=card&numberOfResults=36>

<https://www.ottofrei.com/search?keywords=loupe%2010x>

#### **Beading tools set,**

this is for beading and pave. You will need only one set. Here are some options



This is the complete set.

Very basic sets

<https://www.ottofrei.com/Glardon-Vallorbe-Swiss-Beading-Tools-Set-of-12>

Or Complete set.

<https://www.ottofrei.com/Glardon-Vallorbe-Beading-Tool-Set-24-Pieces>

## Gem Tweezers

These are special tweezers to hold gemstones



Value line diamond tweezers \$2.39

<https://www.riogrande.com/product/locking-diamond-tweezers-medium-tip/115092>

Or

Quality tweezers

<https://www.riogrande.com/product/regine-locking-stainless-steel-diamond-tweezers-medium/115505>

## 2 Burnishers

I will show you how to make burnishers. You can purchase 2 of these pin pushers and we can make them into burnishers.



<https://www.ottofrei.com/Pin-Pusher-With-Wooden-Handle>

## Calipers

I recommend the digital calipers, but if you are on a budget you can get the less expensive brass ones.



<https://www.ottofrei.com/6-Inch-150mm-Electronic-Digital-Caliper>

or

<https://www.riogrande.com/product/stainless-steel-digital-fractional-caliper-6/116417>



<https://www.ottofrei.com/search?keywords=Caliper%20brass>

**Graver** for bead setting

QC-4 or QC-5 or QC-3



[https://www.ottofrei.com/GRS-Pre-Cut-Quick-Change-High-Speed-Steel-Onglette-Gravers?quantity=1&custcol\\_of\\_xc\\_size=3532](https://www.ottofrei.com/GRS-Pre-Cut-Quick-Change-High-Speed-Steel-Onglette-Gravers?quantity=1&custcol_of_xc_size=3532)

<https://www.riogrande.com/product/grs-high-speed-steel-quick-change-onglette-qc-3-graver/118216>

[If you want a starter sharpening stone this looks good.](#) Otherwise I can just show you how to sharpen with a mizzy wheel and sandpaper and or polishing wheels. I will have other tools for shaping and sharpening gravers.

## Graver handles.



<https://www.ottofrei.com/Lutz-Comfort-Fit-Graver-Handle>

## Ways to hold metal while setting not essential for the workshop but helpful for your studio

You will need a way to hold your metal in place while setting. Just a ring clamp and bench pin is fine for a basic setup. I listed other possibilities if you want to add more tools to your collection.



Ring clamp this is a must have

<https://www.ottofrei.com/search?keywords=ring%20clamp>

<https://www.riogrande.com/searchresults#q=ring%20clamp&t=products&sort=relevancy&layout=card&numberOfResults=36>

Bench vice this is highly recommended

<https://www.riogrande.com/product/durston-small-vice/113404>

<https://www.ottofrei.com/Swivel-Bench-Vise-With-2-Smooth-Jaws>

Below are not essential, but very helpful.

GRS system amazing, but expensive and not essential.

<https://www.ottofrei.com/GRS-004-832-BenchMate-Encore-QCX-Stone-Setters-Package>

Ball vice amazing, but expensive and not essential. This is used for engraving too.

I found mine used for less than half price.

<https://www.ottofrei.com/GRS-003-531-Standard-Engraving-Block-With-Attachment-Set>

## **This page is a list of materials and consumables you will need for the Stone Setting Workshop.**

### **Burs needed for Stone Setting**

You will need to purchase packages of these different kinds and sizes of burs for stone setting. They come in a package of 6. I like to buy several packages at a time so I always have them on hand. This can be a bit expensive, so if you are on a budget, just buy one of each unless otherwise listed.

At first glance the stone setting bur and the heart look the same, but they are not. Ball burs are easy to recognize, as named they are shaped like a ball (sphere). The stone

setting burs have straight edges and the heart burs have a sharp knife edge. You will need both kinds of burs.

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**1 or more packs    1 mm ball bur**

**1 or more packs    1.5 mm ball bur**

**1 or more packs    2mm ball bur**

You will need all sizes listed above. Below are different brands and qualities. They all work, but the expensive ones are the best.

These are the best, but also expensive.



[https://www.ottofrei.com/Fox-Round-Carbide-Burs-3-32-Shank-30mm-2-30mm?quantity=1&custcol\\_of\\_xc\\_bur\\_size=18](https://www.ottofrei.com/Fox-Round-Carbide-Burs-3-32-Shank-30mm-2-30mm?quantity=1&custcol_of_xc_bur_size=18) or

These two work fine

<https://www.riogrande.com/product/Busch-Tungsten-Vanadium-Round-Bur-1mm/341280> or

[https://www.ottofrei.com/Busch-Fig-1-Ball-Burs-0-25mm-3-70mm?quantity=1&custcol\\_of\\_xc\\_bur\\_size=18](https://www.ottofrei.com/Busch-Fig-1-Ball-Burs-0-25mm-3-70mm?quantity=1&custcol_of_xc_bur_size=18)

**1 or more packs    2mm setting bur**

You will need 2 mm setting burs. Below are two options of where to purchase them.



[https://www.ottofrei.com/Busch-Fig-413-Setting-Burs-1-00mm-3-70mm?quantity=1&custcol\\_of\\_xc\\_bur\\_size=38](https://www.ottofrei.com/Busch-Fig-413-Setting-Burs-1-00mm-3-70mm?quantity=1&custcol_of_xc_bur_size=38) or

<https://www.riogrande.com/product/Busch-Tungsten-Vanadium-Stone-Setting-Bur-2mm/341547>

Cross cutting bur

1mm one pack



<https://www.ottofrei.com/products/fox-fig-21-cylinder-square-cross-cut-burs-60mm-2-70mm>

## Round Cubic zirconia (CZ) for practicing setting.

CZ are great for practicing, as they are very hard and do not scratch or break easily. If you are a bit more advanced, garnets are a good stone to practice, as they are hard, but not as hard as CZ's and you can test your ability to prevent cracking or chipping a stone. I would not recommend anything softer than a 6.5 on the mohs scale. It will add difficulty to learning.

You can use any round gemstone in the same size listed below, but be careful that the stones are cut correctly as well as consistent in size and shape. Most gemstones are not cut well and are not consistent. This will cause extra frustration and make it more difficult to learn stone setting. Machine cut gems tend to be cut well and consistent. Many companies have options of matching stones shape, size, and color. Take advantage of these options, it saves time and frustration.



<https://www.riogrande.com/product/cz-round-machine-cut-faceted-stones/91120gp>

You will need these two sizes for your projects

1 pack	2 mm round CZ pack of 100	91124	\$12.00
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These are other sizes that are good for practicing larger setting. Not required for class.

1 pack	3 mm round CZ pack of 100	91128	\$16.00
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1 pack	5 mm square CZ pack of 10	69483	\$11.75
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1 pack	6.5 mm round CZ pack of 20	91136	\$18.00
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## Stock for rings

If you can afford it I recommend sterling silver. Practicing using silver will allow you to understand how it behaves and you will get used to working with it. This will help you when you start to sell your work. Silver has a higher perceived value, and is in much more demand than copper or brass. If you can not afford to use silver, you are welcome to use other metals.

You can purchase your ring sock at any supplier. I like Hoover and Strong, because they are 100% recycled metals and do not participate in new mining. They have a great variety of sizes. If you can not find the exact size just go up in size a bit. For example if you can not find the 2mm x 2.5mm just order more of the 2mm x 3mm.



**You should come to the workshop with 3 finished rings to practice setting one to two 2.5 mm wide by 2 mm thick in any size.**

**One to two 3 mm wide by 2 mm thick any size.**

Hoover and Strong

<https://www.hooverandstrong.com/quickorder/search/SWF>

SWF Flat sizing wire

1 or 2 pieces of                      2mm x 2.5 mm sterling silver 12 inches

1 or 2 pieces of                      2mm x 3 mm sterling silver 12 inches

Rio Grande does not have the exact dimensions. If you need to purchase from them or another supplier that does not have the above size, I would purchase 8 or 10 gauge square wire and hammer it flatter to get a close dimension. Please contact me or for individual help. The size and shape of your stock will also depend on what kind of studio setup you have.

<https://www.riogrande.com/product/Sterling-Silver-Square-Wire-10-Ga-Dead-Soft/100510>

### **Copper, bronze, brass, or silver sheet for practicing.**

Hopefully you have some scraps already.

Not essential, but helpful to have 3 to 5 sheet metal pieces to practice on. I would use 14 gauge minimum, 12 g (2mm) is ideal, 18 g can work.

**Sandpaper 320,400,600,1500 grits.** One or more sheets for each grit wet/dry sandpaper. I like the 3M brand papers, but any brand is fine. Do not get sandpaper for wood. Wet dry for metal.

### **Sanding and polishing tools for the flex shaft:**

These are suggestions to bring, but not essential for the workshop.



Split mandrels

<https://www.ottofrei.com/Split-Slotted-Mandrel-Straight-Type-3-32-Shanks-Packs-of-6> \$5.95



**Polishing wheel kit**

<https://www.ottofrei.com/Ottotech-by-EVE-Silicone-Polishing-Kit-of-90>

This is my go to polishing kit. I buy a couple of them a year. It has a great variety of grits from very rough to polishing. It has shapes that can fit in most situation- Curtis



**Mizzy wheels great for grinding gravers in the right shape**

<https://www.ottofrei.com/Mizzy-Heatless-Wheels>