# **92 Y ART CENTER** GILDA AND HENRY BLOCK SCHOOL OF THE ARTS

Gold II:

- Basic Prong Setting (September Session)
- Chain-making (October Session)
- Introduction to Mechanisms (November Session)

#### **BASIC PRONG SETTING MODULE (September Session)**

#### MATERIALS

- a round or oval cabochon stone that you would like to set (recommended size is between 8-12mm or so) - cadmium free hard, medium, and soft solder in the karat of gold that you intend to work in

The exact amounts of gold sheet and wire required for this project will differ depending on the specifications of your individual stone. This will be addressed in the first class and you can then buy materials accordingly. For general planning purposes, you will need:

- 18 or 16 gauge round wire in your preference of 14kt or 18kt yellow gold for the prongs and bail

- 20 or 18 gauge sheet in your preference of 14kt or 18kt yellow gold for the seat of the stone (height of the strip of sheet can range 3-5mm; you will need enough to account for the inner circumference of the cabochon).

- 20 or 18 gauge round wire in your preference of 14kt or 18kt yellow gold to attach the bail to the setting
 ~ estimated total cost for the gold alone is will be in the \$150-\$175 range but is subject to vary significantly depending on the size of your stone and subsequent amount of gold used.
 TOOLS

# Essential Toolkit (required):

- safety glasses \*
- optiVISOR in desired strength if you require magnification to see small objects
- saw frame
- 2/0 saw blades
- beeswax or burlife
- millimeter gauge or caliper
- scribe
- fine tip sharpie

- wet/dry sandpaper in grits 240, 320, 400 (one sheet of each is enough-can be purchased by the sheet at Allcraft)

- set of needle files with flat, half round, round, square, and triangular heads
- chain nose pliers
- flat & round nose forming pliers
- flat nose pliers
- empty glass or hard plastic jar/container and small flat paint brush to collect gold sweeps and filings
- stainless steel precision tweezers
- charcoal board or solderite pad
- shears for snipping your solder pallions
- flux brush
- soldering pick
- bezel pusher

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- bezel roller

\* Please note: Safety glasses are not suggested but absolutely required when using any rotary tools or machinery. Students will not be permitted to use the communal safety glasses in the jewelry studios in consideration of Covid-19 related safety protocols, so you must purchase your own and bring them to class. Thank you for your cooperation with this procedure!

#### Deluxe Toolkit (recommended but not required):

- dividers
- 1.2mm or 1.4mm cup bur (depending on the gauge of your prongs)
- 1mm or 1.2mm krause bur (depending on the gauge of your prongs)
- assorted rubber wheels flex shaft attachments
- flat nose parallel action pliers

- Dandix flux if you do not wish to share communal studio flux (I highly discourage the use of handy flux or other fluxes containing fluorides)

#### Found in Studio (no need to purchase):

- torch
- pickle and quench bowl
- polishing machine and polishing compounds
- steel shot tumbler
- guillotine shear
- steel blocks
- dapping tools
- various types of steel hammers
- rawhide and brass mallets
- rolling mill
- draw plates
- vice
- double stick tape & wooden blocks
- steel ring, bracelet, and bezel mandrels
- masking tape
- pitch bowls
- various wooden dowels and pieces of scrap base metal collet blocks

#### CHAIN-MAKING MODULE (October Session)

#### MATERIALS

- 14kt or 18kt round (or square if preferred) yellow gold wire; the thickness (or gauge) you need will vary on what type of chain you intend to make, and the amount will depend on how long you would like it to be...these topics will be covered in demonstrations in the first class so you can buy gold wire accordingly
- 14kt or 18kt round (or square if preferred) yellow gold wire in 16 or 14 gauge thickness to make the clasp, which will also depend on the exact specifications of your design

- cadmium free hard, medium, and easy solder in the karat of gold that you intend to work in TOOLS

- safety glasses \*



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- optiVISOR in desired strength if you require magnification to see small objects
- saw frame
- 2/0 saw blades
- millimeter gauge or caliper
- beeswax or burlife
- scribe
- fine tip sharpie
- flux brush
- soldering pick
- charcoal block or solderite pad
- shears for snipping your solder pallions
- empty glass or hard plastic jar/container and small flat paint brush to collect gold sweeps and filings
- stainless steel precision tweezers

- wet/dry sandpaper in grits 240, 320, 400 (one sheet of each is enough-can be purchased by the sheet at Allcraft)

- set of needle files with flat, half round, round, square, and triangular heads chain nose pliers
- flat & round nose forming pliers
- flat nose pliers

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## Deluxe Toolkit (recommended but not required):

- stainless steel cross-lock tweezers

- Dandix flux if you do not wish to share communal studio flux ( I highly discourage the use of handy flux or other fluxes containing fluorides)

- assorted rubber wheels flex shaft attachments
- flat nose parallel action pliers
- rotary brass brush

## Found in Studio (no need to purchase):

- torch
- pickle and quench bowl
- polishing machine and polishing compounds
- steel shot tumbler
- guillotine shear
- steel blocks
- dapping tools
- various types of steel hammers
- rawhide and brass mallets
- rolling mill
- draw plates
- vice



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- double stick tape & wooden blocks
- steel ring, bracelet, and bezel mandrels
- masking tape
- pitch bowls
- various wooden dowels and pieces of scrap base metal
- collet blocks

## **INTRODUCTION TO MECHANISMS MODULE (November Session)**

# MATERIALS

## For the mechanism component:

- cadmium free hard, medium, and easy solder in the karat of gold that you intend to work in - 18 gauge round 14kt yellow gold wire for earring posts (1 3/4 inches); estimated cost \$21.40, based on gold price at \$1974 per ounce

- 20 gauge round 14kt yellow gold wire for rivets (1/2 inch) ; estimated cost \$3.82, based on gold price at \$1974 per ounce

- 3mm wide strip of 20 gauge 14kt yellow gold sheet for the clasps (1/2 inch)..can also be purchased as 14K Yellow Gold 3 x 1mm Rectangle Sizing Stock on Riogrande.com; estimated cost \$22, based on gold price at \$1974 per ounce

- 8 gauge 14kt yellow gold round wire for the hinges (1/4 inch); estimated cost \$30, based on gold price at \$1974 per ounce

~ The exact amount/type of other gold required for this project will differ depending on the specifications of your individual hoop design, so the cost of gold for this portion of the design can vary greatly. This will be addressed in the first class and you can then buy materials accordingly.

# TOOLS

# Essential Toolkit (required):

- safety glasses \*
- optiVISOR in desired strength if you require magnification to see small objects
- saw frame
- 2/0 saw blades
- 4/0 saw blades
- beeswax or burlife
- millimeter gauge or caliper
- scribe
- fine tip sharpie
- wet/dry sandpaper in grits 240, 320, 400 (one sheet of each is enough-can be purchased by the sheet at Allcraft)
- set of needle files with flat, half round, round, square, and triangular heads
- chain nose pliers
- flat & round nose forming pliers
- flat nose pliers
- empty glass or hard plastic jar/container and small flat paint brush to collect gold sweeps and filings
- stainless steel precision tweezers

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- charcoal board or solderite pad
- shears for snipping your solder pallions flux brush
- soldering pick
- equaling escapement file
- 20 gauge (sometimes referred to as #67 or .81mm) steel twist drill bit
- 22 gauge (sometimes referred to as #61 or .66 mm) steel twist drill bit

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## Deluxe Toolkit (recommended but not required):

- flat nose parallel action pliers

- Dandix flux if you do not wish to share communal studio flux (I highly discourage the use of handy flux or other fluxes containing fluorides)

- flat edge and/or drum shaped rubber wheels in black (medium abrasiveness), and blue (fine abrasiveness) Found in Studio (no need to purchase):

- torch
- pickle and quench bowl
- polishing machine and polishing compounds
- steel shot tumbler
- guillotine shear
- steel blocks
- dapping tools
- various types of steel hammers
- rawhide and brass mallets
- rolling mill
- draw plates
- vice
- double stick tape & wooden blocks
- steel ring, bracelet, and bezel mandrels
- masking tape
- pitch bowls
- various wooden dowels and pieces of scrap base metal
- collet blocks

#### **Suggested Suppliers**

\*Be sure to call ahead for supplier's hours-many are not open on the weekends and close early on Fridays, or have amended their operation schedules due to the Covid-19 pandemic!\*

Myron Toback (for silver) 545 5th Ave. #1000 212-398-8300

Rio Grande \*online only (for tools, metal, & stones)



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www.riogrande.com 800-545-6566

Allcraft (for tools) 135 West 29th Street 212-279-7077

Dikra Gems (for stones) 56 West 45th Street, suite 1005 212-869-6332

R Gems (for stones) 48 West 48th Street, suite 210 212-302-3388

#### **Student Guidelines & Studio Rules**

Studios are open 15 min before the start of class.

Do not enter any studio without your instructor present.

Do not enter a studio until the previous class has ended and all the participants have left the room and your instructor is present.

Students must leave studios after their class is over.

Do not use any tool that you are unfamiliar with as it could permanently damage the tool particularly hammers. Only use hammers that you are familiar with like a "hardware hammer" if it doesn't look familiar don't use it you will ruin it.

Exhaust fans must be turned on when torches are being used or any materials is being melted.

Tools & Torches are coded with six different colors which denote the studios they belong in and their use; Blue S353

Yellow S355

Red S352

Orange S350

LIGHT BLUE INSTRUCTOR'S BOX NOT FOR STUDENT USE.

Green children's classes

If you borrow a tool from another room return it at the end of class time. Library books are for reference only please return them in their proper order.

Students are responsible for cleaning the space they have used including the soldering station and bricks and returning tools at the end of class.

This is a communal studio please help us make your time here productive by following the above guidelines.