

## Kinetics

Kinetics refers to movement or motion. Making jewelry, you have multiple kinetic options to enhance your pieces, it all depends on what look you are trying to accomplish.

### Buckles

**Bar Buckle** - This type of buckle has a bar attached, either in the center of the buckle, a center bar buckle, or at the end of the buckle, a heel bar buckle. Attached to the bar is a kinetic prong, which passes through the belt material securing it in place.

Solder the bar in place, or create a small heel at the end of your buckle.

Create an extended b or d shape using a pair of round nose pliers.

Attach the prong to the bar, wrapping the loop around the heel or bar. Close the loop

**Loop and Hook Buckle** – This type of buckle has a kinetic bar or swinging loop, which the belt attaches to, and a hook on the other side of the buckle, which attaches to a hole in the belt, securing it in place.

Find a tube that fits the size of the wire you intend to use to create your swinging loop

OR Take a thin gauge of metal and form it around the wire

Solder your tube to the back of your belt buckle or secure your formed metal with rivets.

Create a swinging loop with a thick gauge of wire and a pair of pliers

Insert the loop into your tube or formed piece of metal. It will be secure with a tension fit or you can solder for added security.

### Hinges

**No Solder Hinge**- This hinge is tension fit, much like how we secured the swinging loop.

Always use a pattern, this will ensure that your hinge has no gaps and is tightly fit.

After cutting out your pattern, fold the metal for your first two knuckles over your hinge pin and fit tightly.

Pass the other side of the hinge under the hinge pin, which is still in the first two knuckles, and fold your metal over the hinge pin, remember to fit tightly.

Remove the pin and rivet the two folded knuckles down to the box. Repeat with other knuckle.

Insert hinge pin, which will hold due to tension, or flare out the top and bottom like a rivet for extra security.

**Basic Soldered Hinge** – Hinges must be precise and accurate to function correctly.

Make sure the hinge area is strengthened, attach a flat bar called a bearer.

File a 45° angle on each edge where you plan to attach the hinge. Make sure you file flat, uniformly and evenly.

To create a perfect seat for your tube, use a parallel round file the size of the tube you plan to use or a little larger. This creates a U shape and insures that your hinge will not move when soldering it.

Cut the knuckles for your hinge using a tube cutting holder, this will cut precise, accurate and uniform knuckles.

Place the knuckles in the U shaped grove you have created with the file and solder in place.

Insert hinge pin, tension fit or riveted for security.

## **Closures**

Closures or catches can be made simply with a snug, tension fit or more complex with hidden mechanisms.

**Ball & Wire Closure** – This closure is a tension fit closure that requires little to no soldering.

Take a piece of wire and bend it in a U shape.

Fold each side at a 90° angle using a pair of flat or chain nose pliers

Cut two pieces of tubing the size of each of the legs or make a pattern to create a tension fit that you will fold over the wire and rivet.

Solder or rivet on the piece designed to hold your bent U shape with the piece in it.

Ball up a piece of wire and solder or rivet it in place so the catch will snap on over it.

**Friction Bezel** – The walls should be thin, this does not affect the functionality of your closure. Friction is achieved as the bezel “leans” against the inside wall of the box or lid. Thin metal will spring back when opened, retaining its “lean”. If you used a thick metal, it would rub against the wall of the box or lid wearing down the lid. Think of an Altoids tin.