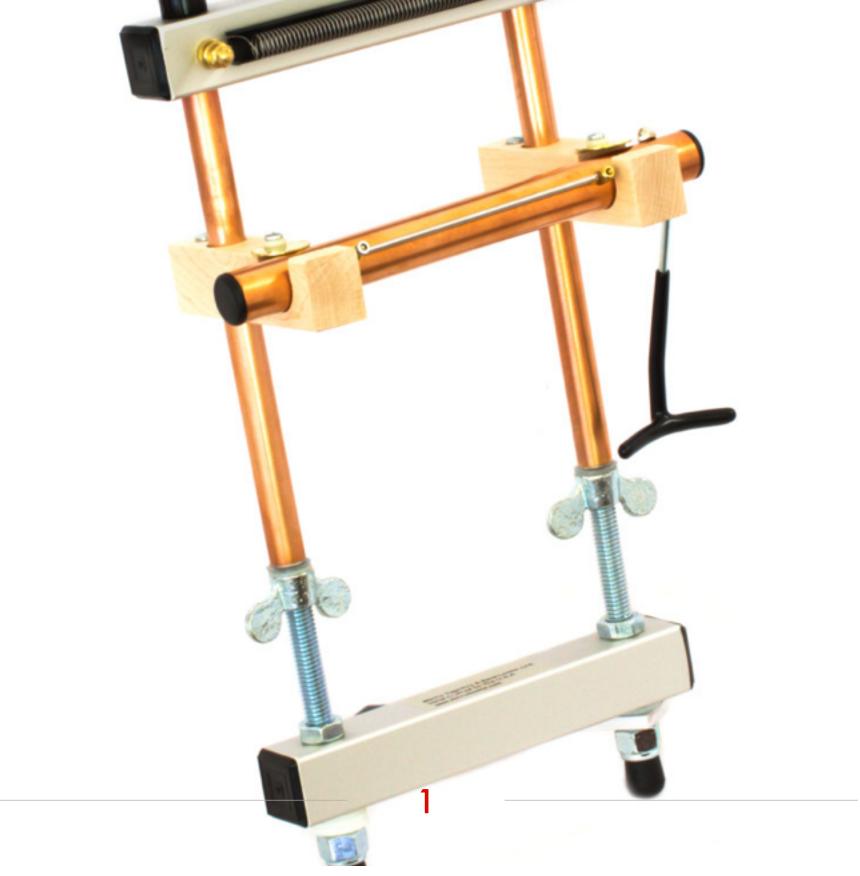


#### WARPING A MIRRIX LOOM FOR BEADWORK WITH THE SHEDDING DEVICE

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## LOOM SET-UP

#### Warping with a shedding device:

Traditionally, bead weaving is done by placing beads behind the warp and then sewing through those beads. Mirrix has come up with a method of weaving beads that involves placing the beads between two sets of warp threads and then, using the shedding device, securing the beads between those threads.

#### What you need to warp your loom:

- -Loom
- -Wooden Clips
- -One Warp Coil (also called a spring)
- -Warping Bar
- -Flat Wrench
- -Spring Bar
- -Shedding Device
- -Shedding Device Handle
- -Allen wrench
- -Heddles (these can be purchased or made)
- -Warp
- -A Pair of Scissors
- -A Measuring Tape
- -Phillips Head Screwdriver (this is not necessary for newer looms with wing-nuts on the clips)

Before you begin weaving on a Mirrix Loom, you need to choose the correct spring (also called a warp coil) to place on the top bar of the loom (or top and bottom if you are using a bottom spring kit). This spring sets the spacing of the warp threads on the loom. When choosing which spring to use for bead weaving, you want one that will set the spacing for the exact size of beads that you are using.

You can figure out which spring to use by doing this: Place the beads you plan on weaving on a needle and measure an inch. Then, count how many beads are in that inch. The number of beads minus one is the warp coil that will be used. There is some leeway in this, and depending on the beads you are using, it might not work out perfectly (numerically), just close. Using a smaller (lower number) coil is better than using a larger (higher number) coil.

#### Delicas:

8/0-9 per inch: Use the 8 dent spring

10/0-14 per inch: Use the 12 dent spring

11/0-19 per inch: Use the 18 dent spring except when doing very wide pieces, when you can use the 16 dent spring.

15/0-25 per inch: Use the 22 dent coil just in order to space the beads. That is the largest coil we can make.

#### Seed Beads:

15/0-24 per inch: Use the 22 dent spring.

11/0-14 to 15 per inch (sizes vary slightly depending on finish and manufacturer): Use the 14 dent spring.

8/0-12 per inch: Use the 10 or 12 dent spring depending on what size warp you are using. For example, when using the bead cord, because it is thicker, you will use the 10 dent spring. But if you are just weaving straight beads using beading thread as warp, you will use the 12 dent spring.

6/0-8 per inch: Use the 12 dent spring warped every-other-dent for 6 dents per inch.



**Warp:** The thread or yarn that is put on the loom to serve as the base for your weaving. Think of it as your canvas.

**Weft:** What you weave into the warp. This can be anything from beads to wool to silk to novelty threads . . . whatever your heart desires.

Warp Sett: The space between warp threads

Selvages: The four sides of your piece.

**Shed:** The space between a lowered and raised set of warps through which you pass your weft or your beads in order to weave them into the warp threads.

**Heddle:** A heddle attaches your shedding device to your warp threads. Used only when weaving tapestry and bead weaving WITH the shedding device, heddles can be either ordered pre-made or you can make them yourself!

**Top Beam:** The top beam of every Mirrix Loom is made of aluminum and has rounded edges.

**Bottom Beam:** The bottom beam of every Mirrix Loom is made of aluminum and has rounded edges. Looms size 28" and larger have double bottom beams for strength.

Copper Side Bar: Each loom has copper side bars.

**Threaded Rod:** Threaded rod that fits into the copper side bars allows you to adjust the height of your loom and tighten the tension.

Wing-Nut: Wing-nuts are used to adjust the tension on your warp and the height of your loom.

**Warp Coil Tray:** This tray (which is not on the Mini Mirrix or Sam Loom) holds your springs/ warp coils in place at the top of the loom.

**Wooden Clip:** Wooden clips (not on the Mini Mirrix or Sam Looms) have two functions: To hold your warping bar when warping and to (optionally) hold the shedding device.

**Fold-Out Leg:** These legs fold-out to allow your loom to stand steadily on any flat surface. The Mini Mirrix does not have legs, the Lani Loom has one and the rest have two.

**Shedding Device:** This device raises warp threads to make weaving tapestry or beads faster and easier. It comes standard on all looms 16" and larger, but does not have to be used.

**Shedding Device Handle:** This handle operates the shedding device. It can be replaced by an electric treadle if you are weaving tapestry.

**Warp Coil:** Warp coils (also called springs) space your warp threads. Choose different warp coils depending on the size or thickness of the beads or warp and weft you are using.

**Warping Bar:** This bar is what your warp gets tied to when warping. It also helps you to 'advance' your weaving to the back of the loom for more weaving room. This bar is not used for the "easy warp" method of warping.

Allen Wrench: This wrench loosens and tightens the bars on the shedding device.

**Flat Wrench:** The flat wrench is helpful for tightening and loosening the wing-nuts.



2

### WARPING

Warping for bead weaving with the **shedding device** is fairly straightforward, but we do recommend that the first time you warp, you warp a thin piece just to get the hang of putting heddles on. Once you get comfortable with warping, warping a wider piece will be easier to do!

If you are weaving a thin piece relative to the size of your loom, you will want to warp your piece on one side to keep the warping bar balanced. You can learn more about balancing the warping bar here.

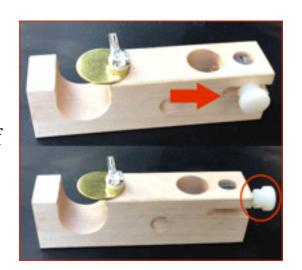


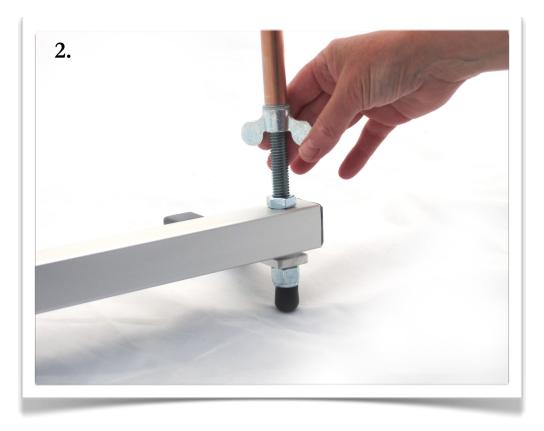
#### **Step One:**

Line up the wooden clips 2" to 3" from the bottom of the top beam, facing backwards so the longest part of the clip is behind the loom. You can loosen and tighten the clips to the copper bar using the white plastic screws on the back of the clips.

Newer looms may have clips with plastic screws on the side of the clip. To tighten the

clip to the loom, simply move the plastic screw to the back of the clip and tighten.







#### **Step Two:**

Adjust height of loom to accommodate the length of weaving you plan to make. Do this by rotating the wing-nuts (clockwise to shorten the loom and counter clockwise to lengthen the loom.) Make sure you have at least an inch of threaded rod exposed at the bottom in order to be able to adjust your loom for rotating the warp to the back. You can extend your loom to the point where the copper covers at least 4" of the threaded rod when warping on the 8, 12 & 16" looms and 6" on the 22, 28, 32 & 38" looms. Going beyond that point will potentially make your loom unstable. Make sure the loom is even on both sides.

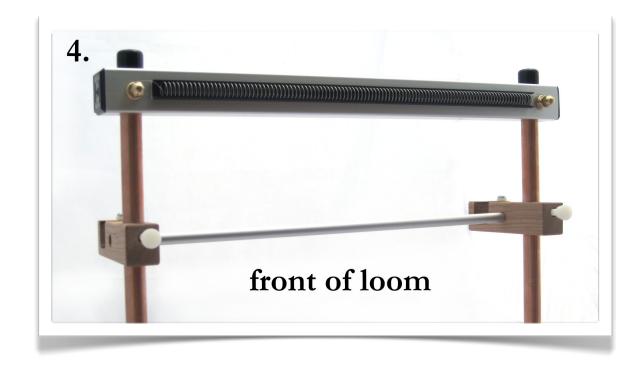
#### **Step Three:**

Attach the warp coil (spring) to top of the loom by hooking both ends around the brass nuts, making sure the warp coil (spring) lies flat in the black plastic tray.



#### **Step Four:**

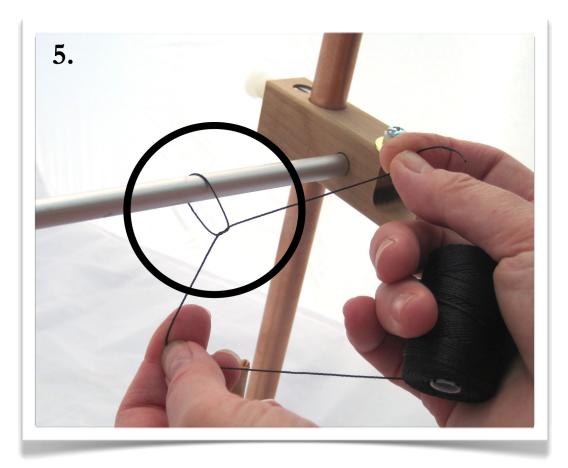
Place warping bar inside clips. Clips will be slightly off parallel in order to hold the bar. Push clips toward the bar until it is firmly held in place.





#### **Step Five:**

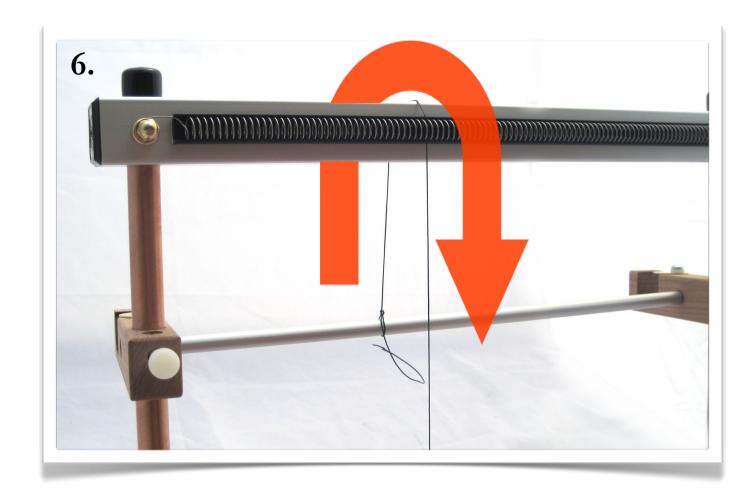
Use a square knot to tie your warping threads to the warping bar. Make sure you have enough room to accommodate the width of your piece. While warping the loom, you want to keep an even tension on your thread. You will adjust the loom when you are done warping to put a stronger tension on.





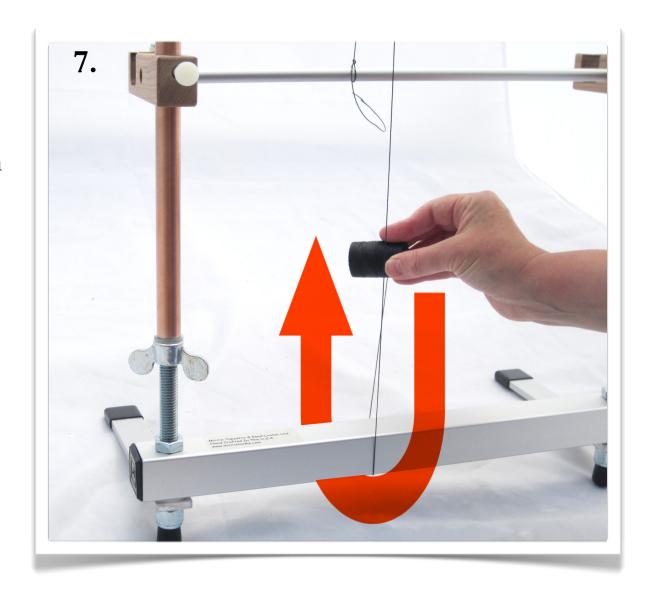
#### **Step Six:**

Take the thread up behind the loom and down through one dent (a dent is a space between each coil in the spring) in the warp coil (spring).



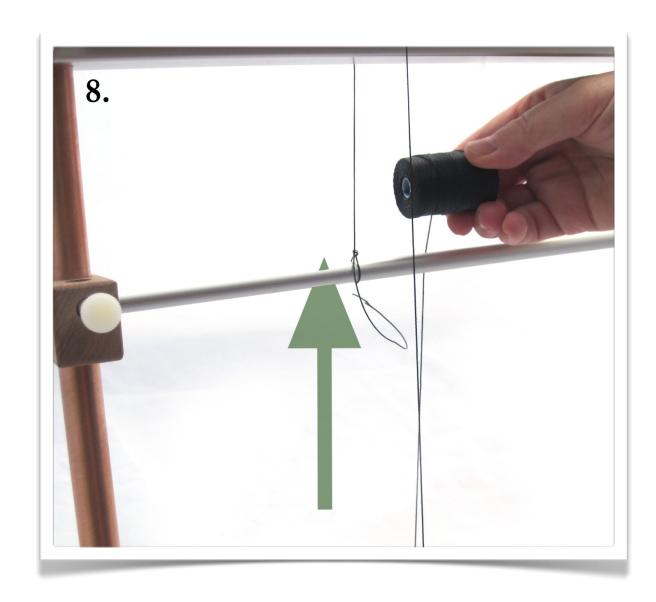
#### **Step Seven:**

Take the thread down the front of the loom and around the bottom beam.



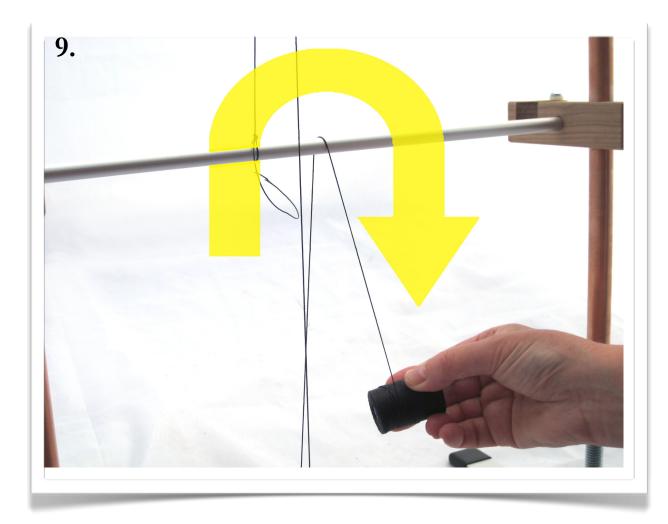
#### **Step Eight:**

Continue up the back of the loom until you reach the warping bar.



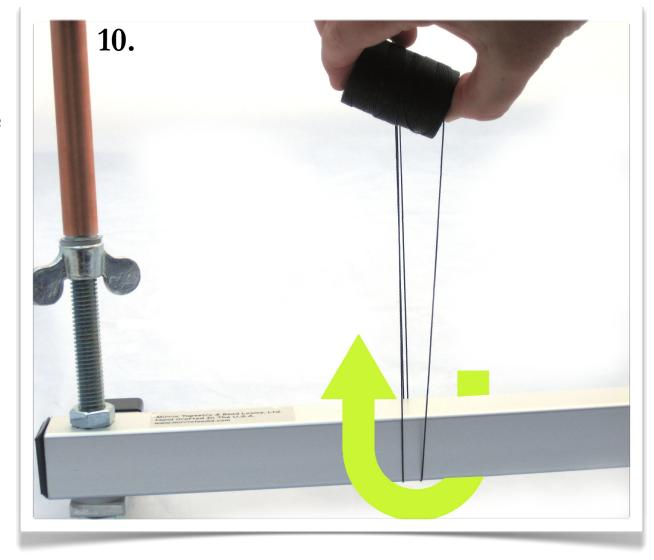
#### **Step Nine:**

Do a u-turn around the bar.



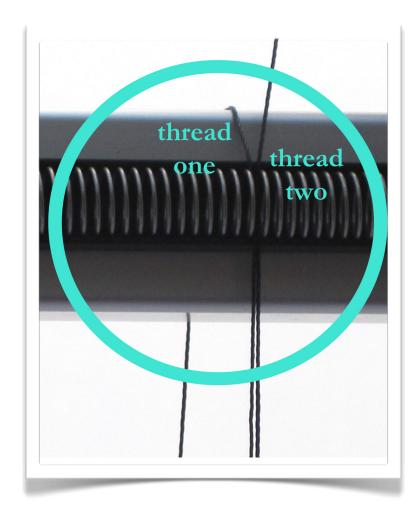
#### **Step Ten:**

Head back down the back of the loom and go under the bottom beam from the back.

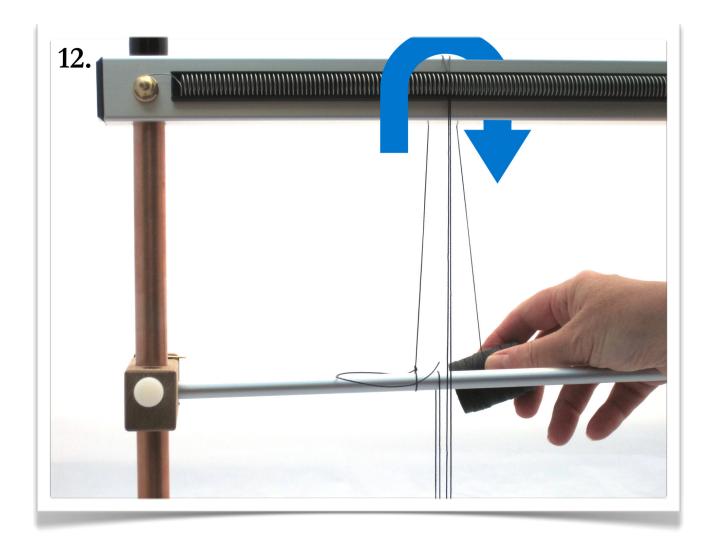


#### **Step Eleven:**

Bring threads up the front of the loom to the warping coil (spring) and into SAME dent you just placed your threads in. (You will have two threads in each dent.)





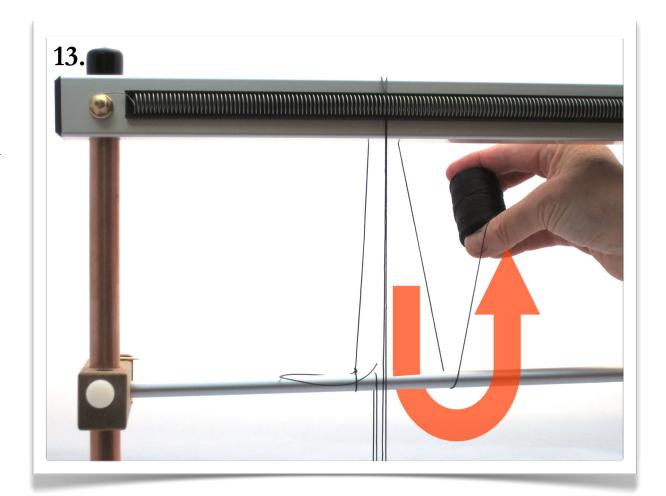


#### **Step Twelve:**

Go around the top beam and head down the back of the loom.

#### **Step Thirteen:**

When you reach the warping bar, do another u-turn and head up the back of the loom to the top beam.



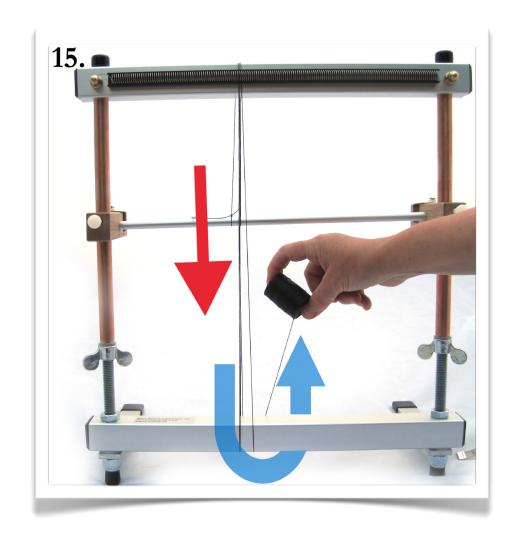


#### **Step Fifteen:**

Bring your thread down the front of the loom and around the bottom beam.

#### **Step Fourteen:**

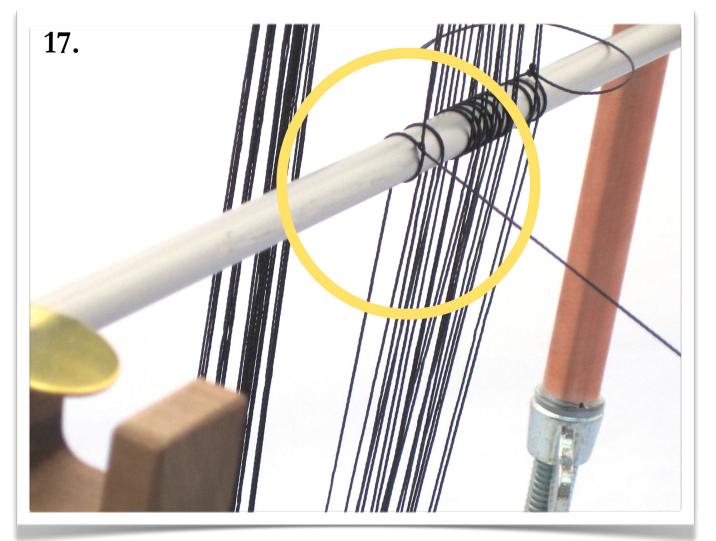
When you reach the warp coil (spring), place your warp in the next dent over.



#### **Step Sixteen:**

Repeat steps 8 to 15 until you have reached the desired number of warps for your piece.

Note: If you run out of warp, DO NOT WORRY! Simply tie off to the bar using a square knot and tie on your new thread next to it. Continue as if it was the same thread.



#### **Step Seventeen:**

Tie off with a square knot, making sure to keep the appropriate tension on that last warp thread.

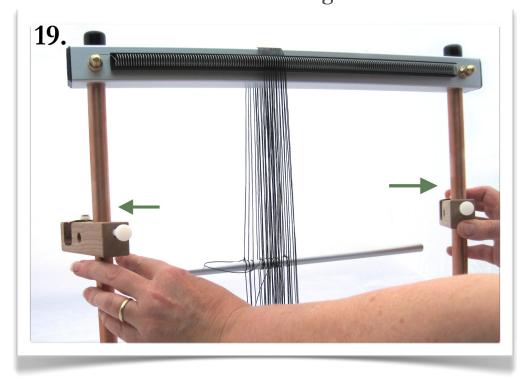


#### **Step Nineteen:**

Swing clips out to release warping bar.

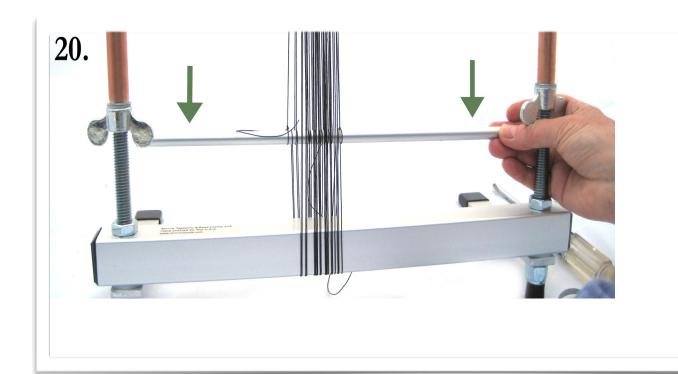
#### **Step Eighteen:**

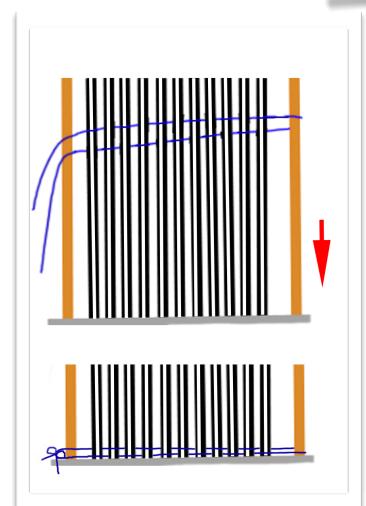
Place your spring bar inside the warp coil on the top of the loom over the warp threads. Release tension on loom so you are able to lower the warping bar. (Do this evenly on both sides.) It might only require one clockwise turn of the wing nuts.



#### **Step Twenty:**

Pull down warping bar until it is about two inches above the top of the bottom beam. Then, put tension on warp by rotating wing nuts counter clockwise. Put enough tension on the warp so none of the threads are baggy or loose.

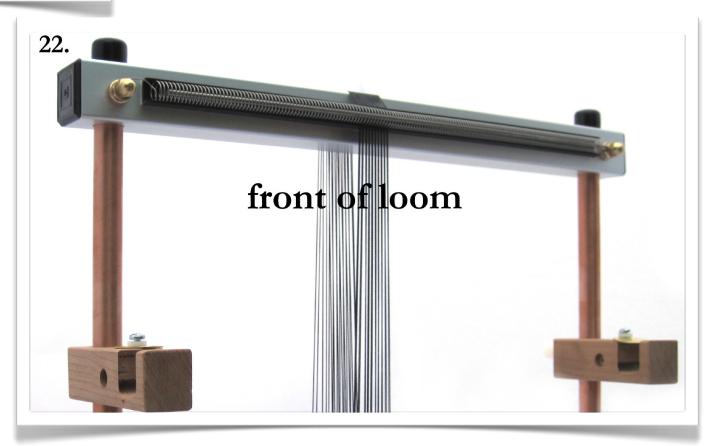




#### **Twenty-One**

If you do not have a bottom spring kit, you may want to separate your pairs of warp threads (the two warp threads in each dent in your warp coil) to make weaving your first row easier. To do this, take a thread about two and a half times the width of your loom and weave through each pair of warp threads. You should do this near the top of the loom so finding the pairs is easier. Then, loop around the side bar and weave back through. Once you've done this, slide the thread down to the bottom of the loom and tie it around the other bar.

**Step Twenty-Two:** Swing clips around to front of loom.



#### **Step Twenty-Three:**

Loosen screws in brass plates on clips.

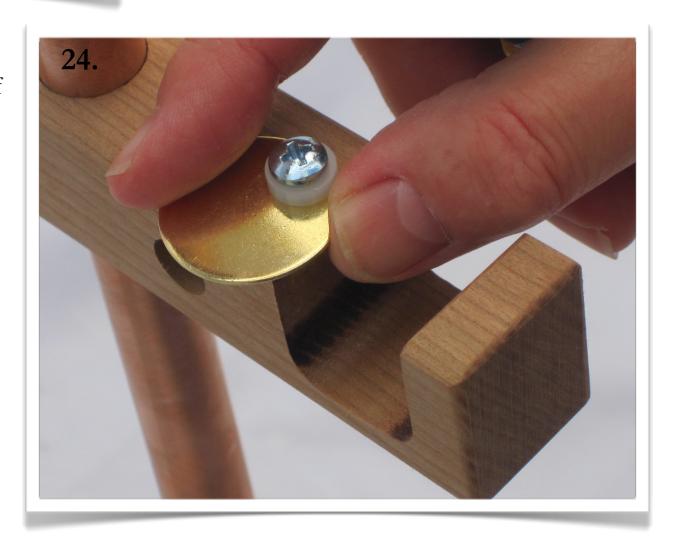
#### Note:

Newer looms will have wing-nuts on the clips. In this case, you will not need the screwdriver





**Step Twenty-Four:** Move brass plates out of the way.



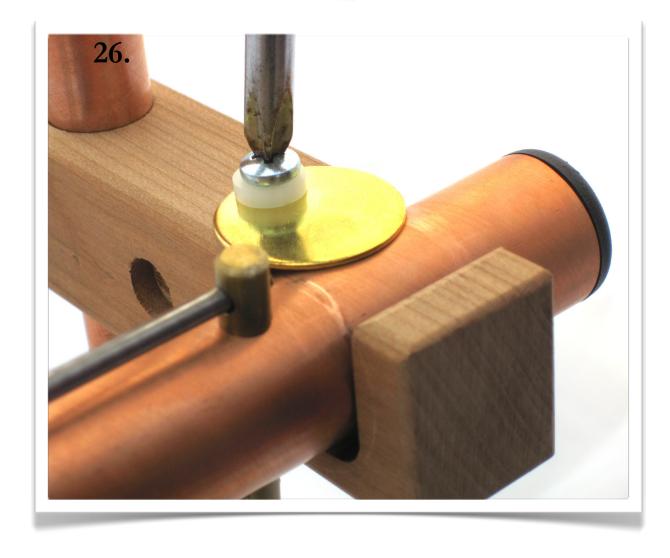


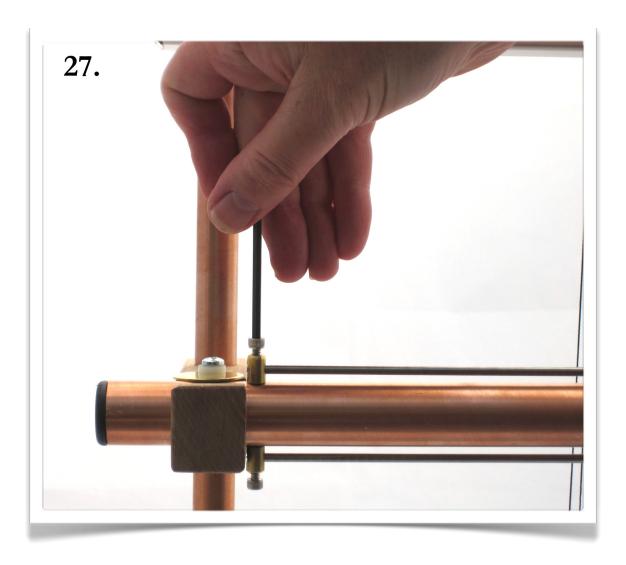
#### **Step Twenty-Five:**

Place shedding device into clips. If you are right handed, the handle hole should be on the right. If you are left handed, the handle hole should be on the left.

**Step Twenty-Six:** 

Swing brass plates over bar on both sides and tighten.



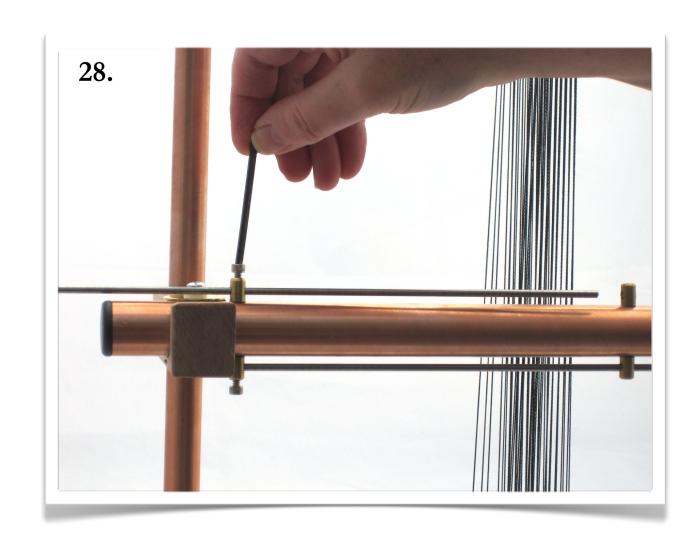


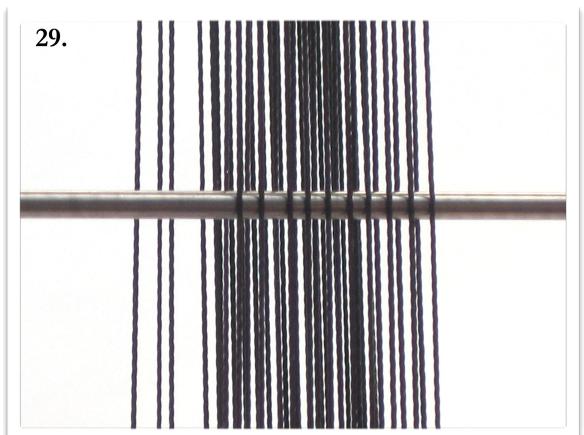
#### **Step Twenty-Seven:**

Loosen screw that holds in top heddle bar (the heddle bars are the two bars on the top and bottom of the shedding device that will eventually hold the heddles to create different sheds).

#### **Step Twenty-Eight:**

Push the heddle bar partway out and tighten screw slightly.





#### **Step Twenty-Nine:**

Weave the spring bar between the warps, separating the two warps in each dent. Tie the bar to the top of the loom to keep it loosely in place.

(Note: This step is optional, but is helpful when putting on your heddles.)



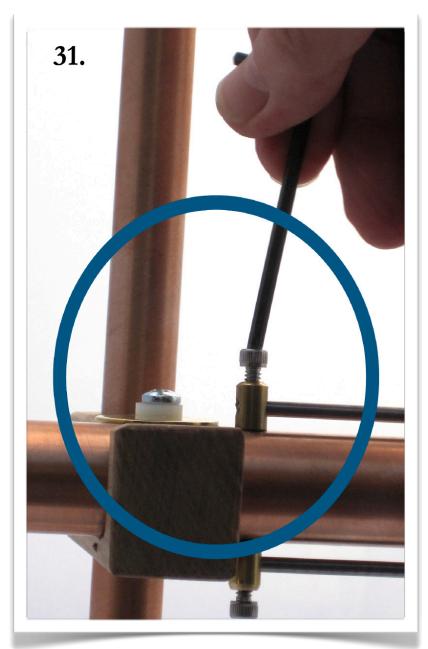


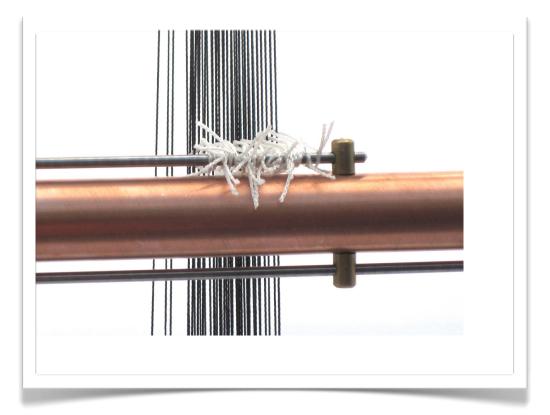
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#### **Step Thirty:**

Place a heddle around one of the threads in the first dent. It doesn't matter which thread you choose at this point. Loop onto heddle bar. Continue doing this with one thread from each dent.

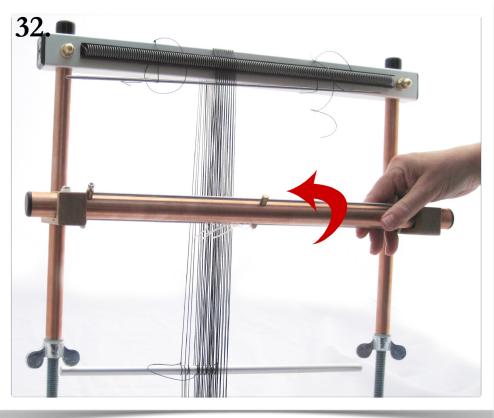
(After this you will put heddles on the other warps and attach those to the other heddle bar allowing each set of warps to be raised separately).





#### **Step Thirty-One**

Release screw and reinsert bar. Tighten screws using Allan wrench. Make sure bar is flush with side of brass holder.

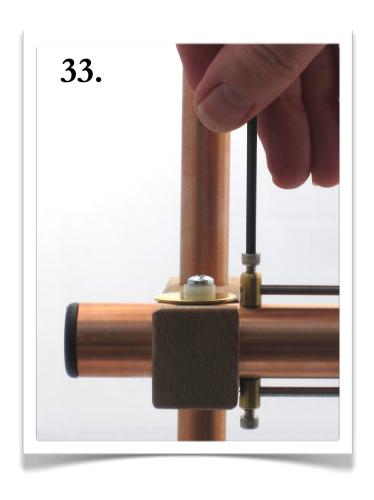


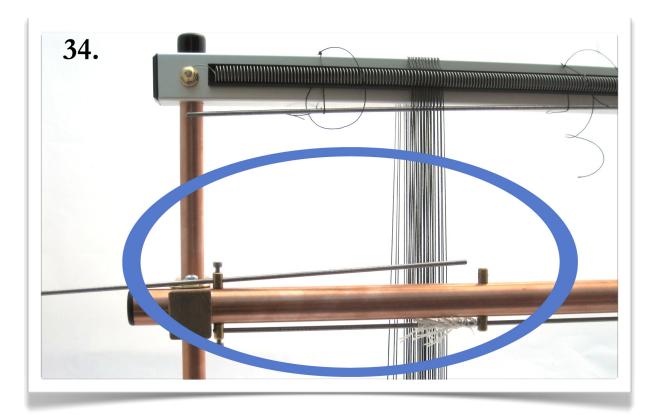
#### **Step Thirty-Three:**

Loosen other heddle bar (which should now be on the top of the shedding device) with the Allan wrench.

#### **Step Thirty-Two**

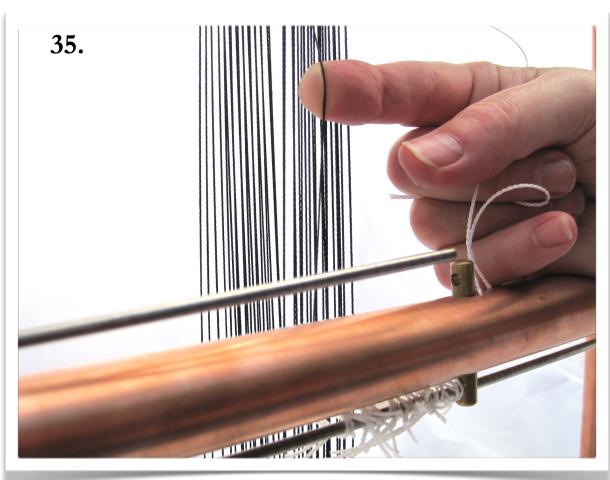
Rotate shedding device towards the loom so that the empty heddle bar is now on top.





#### **Step Thirty-Four**

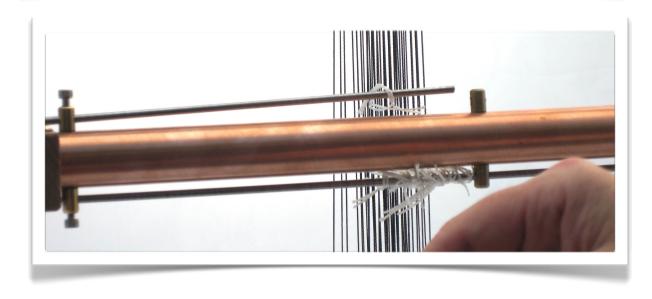
Remove heddle bar partway and tighten slightly.

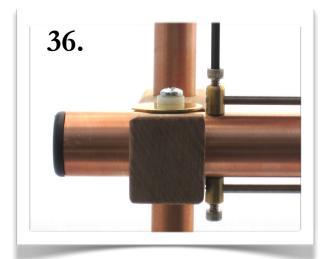


#### **Step Thirty-Five**

Insert heddle around first warp that does not already have a heddle on it. (Bring the warp without a heddle on it to the right of the warp with a heddle on it in each dent.)

Continue doing this with every other warp, making sure there is only one heddle on each warp. Checking the spring bar will help you locate which warps already have heddles on them.





**Step Thirty-Six**Put bar back and tighten screw.

#### **Step Thirty-Seven**

Untie and take out spring bar and insert in warp coil (spring) over warp to keep it from slipping out of the warp coil (spring).

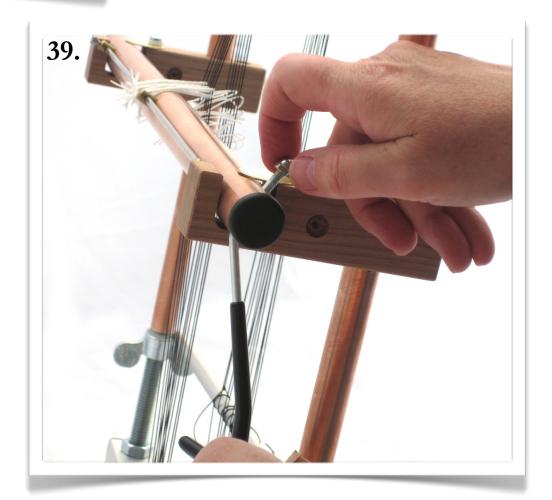


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# **Step Thirty-Eight:** Remove acorn nut from handle.

#### **Step Thirty-Nine:**

Stick handle in shedding device and put nut back on.



#### **Step Forty:**

Begin weaving!

**Notes on Weaving:** When weaving beads with the shedding device remember to weave your first row in the traditional method (placing your beads behind the warp threads and then sewing through those beads in front of the warp threads). When doing this, remember to put your shedding device in the neutral position and to count each PAIR of warps threads (a pair being the two warps that share a dent) as one warp thread. After weaving your first row like this, begin weaving using the shedding device. This will act as a base for your bead weaving.

For more on weaving beads on a Mirrix Loom, check out this video.