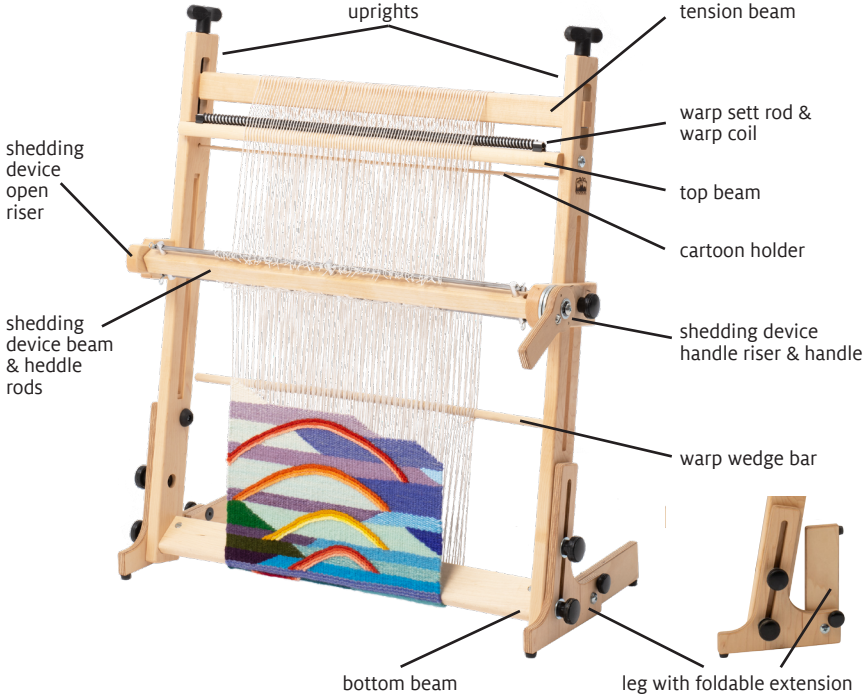
**SL2220**

# ARRAS TAPESTRY LOOM™

## Assembly, Warping & Weaving




**WATCH THE ASSEMBLY VIDEO AT YOUTUBE.COM/USER/SCHACHTSPINDLE**

Find out more at *schachtspindle.com*
Schacht Spindle Company 6101 Ben Place Boulder, CO 80301
p. 303.442.3212 800.228.2553 f. 303.447.9273



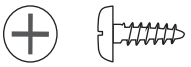
03.20

# ARRAS TAPESTRY LOOM™
## ASSEMBLY, WARPING & WEAVING

### TOOLS REQUIRED
#2 Phillips screwdriver
slotted (flat) screwdriver (optional)

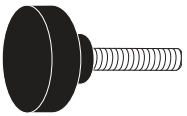
### PARTS
left & right uprights
left & right legs with foldable extensions
top beam and warp sett rod
bottom beam
tension beam
shedding device open riser
preassembled shedding device beam, handle riser, and handle
warp wedge bar (1/2" wood dowel)
cartoon holder (1/4" wood dowel)
2X metal heddle rods
4X warp coils (4, 5, 6, and 8-dent)
1X spool of 100 Texsolv heddles

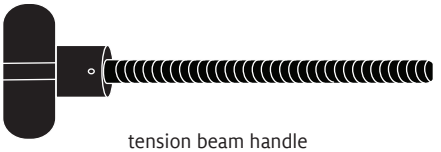
### HARDWARE
2X rubber bumpers
2X #8 x 1/2" Phillips pan head sheet metal screws
4X 1/4-20 barrel nuts
2X 1/4-20 x 2" Phillips truss head machine screws
2X 1/4-20 x 2" Phillips flat head machine screws
2X tension beam handles
2X nylon washers with 3/8" hole (thin black)
2X 3/8-16 x 1" T-nuts (large)
6X round plastic knobs
4X 3/8" USS metal washers
4X nylon T-nut slides
2X nylon washers with 1/4" hole (thick black)
2X 1/4-20 x 3/4" T-nuts (small)
8X rubber O-rings (4 extra included)


Phillips pan head sheet metal screw


Phillips truss head machine screw

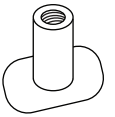

Phillips flat head machine screw


round plastic knob

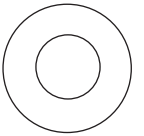

tension beam handle


rubber O-ring


barrel nut


T-nut


T-nut slide


washer


rubber bumper

# Loom Assembly

Before you begin assembly, read over the assembly steps and identify all parts and hardware. You'll find an assembly video at **youtube.com/user/schachtspindle.**

**1.** Attach rubber bumpers to the uprights: Insert each #8 x 1/2" Phillips pan head sheet metal screw through the round side of a rubber bumper. Attach the bumpers to the inner sides of the left and right uprights as shown in Figure 1.

**2.** Attach the top beam: Set the left upright on its back edge on a working surface, with the longer slot at the bottom and the rubber bumper facing to the right (the inner side of the loom).

Orient the top beam with its rounded edge facing up (the loom front) and the warp sett rod at the top, then fit it into the inner groove in the left upright so that the holes in both pieces line up (Figure 2).

Insert a barrel nut into the hole in the left of the top beam. From the outer side of the left upright, insert a 1/4-20 x 2" Phillips truss head machine screw in the hole between the two slots, then screw it into the barrel nut. Hold the barrel nut in place with a slotted screwdriver or your finger. Use a #2 Phillips screwdriver to attach the machine screw.

**3.** Attach the bottom beam: Orient the bottom beam with its rounded edge at the front of the loom and slide it into the slanted inner groove at the bottom of the left upright (Figure 3).

Insert a barrel nut into the hole on the left of the bottom beam. From the outer side of the left upright, insert a 1/4-20 x 2" Phillips flat head machine screw into the large hole at the bottom, screwing it into the barrel nut.

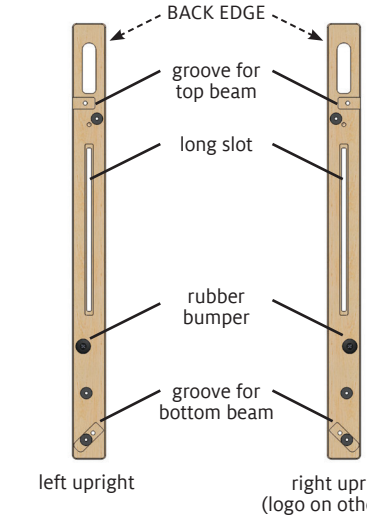



*FIGURE 1: ATTACH BUMPERS TO THE UPRIGHTS*

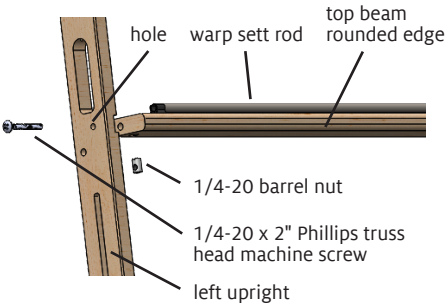



*FIGURE 2: ATTACH THE TOP BEAM*

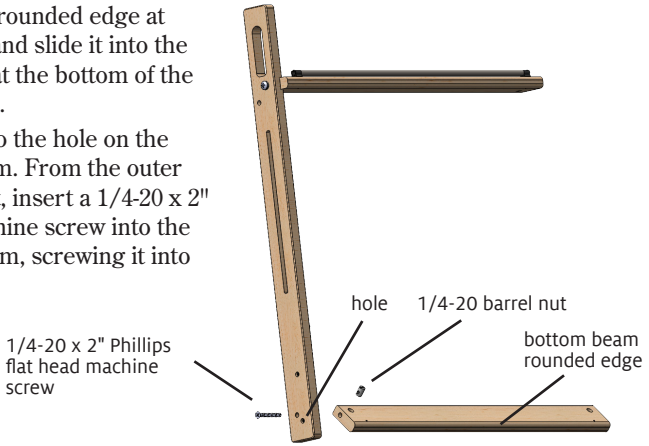



*FIGURE 3: ATTACH THE BOTTOM BEAM*

**4.** Insert the tension beam, rounded edge up, into the upper slot of the left upright (Figure 4).

**5.** Attach the right upright: Orient the right upright with its longer slot at the bottom and the rubber bumper facing to the left (the inner side of the loom). Align the right upright so the tension beam fits into the upper slot and the top beam and bottom beam fit into their grooves (Figure 5).

Attach the right end of the top beam with a barrel nut and a 1/4-20 x 2" Phillips truss head machine screw, as in Step 2. Attach the right end of the bottom beam with a barrel nut and a 1/4-20 x 2" Phillips flat head machine screw, as in Step 3.

**6.** Add handles to the tension beam: Place a large 3/8-16 x 1" T-nut underneath the tension beam with its wide end at the bottom (Figure 6). Fit the T-nut into the hole in the end of the tension beam.

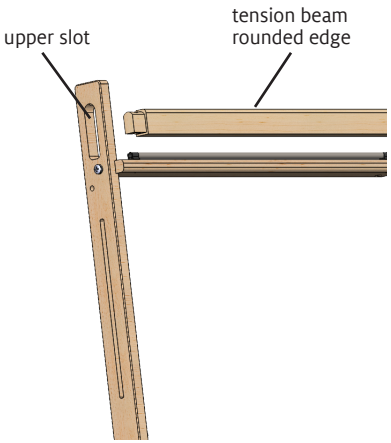



*FIGURE 4: INSERT THE TENSION BEAM*

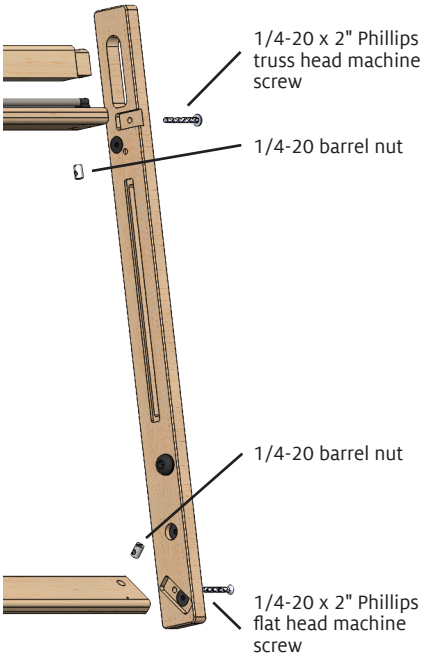



*FIGURE 5: ATTACH THE RIGHT UPRIGHT*

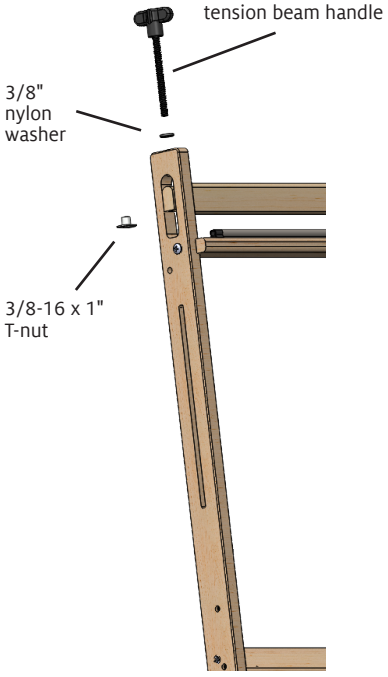



*FIGURE 6: ADD HANDLES TO THE TENSION BEAM*

Place a thin black 3/8" nylon washer on the shaft of a tension beam handle. Insert the handle through the top of an upright and through the tension beam. Screw the handle into the T-nut just enough to hold the tension beam in place. Repeat with the other tension beam handle at the other side of the loom. Level the tension beam by turning one handle to raise or lower that side.

**7.** Attach the legs: Orient the left leg with the rubber feet at the bottom of the loom, the leg extension at the back and facing the inner side of the loom, and the preattached knob facing out (Figure 7).

Insert a round plastic knob through the wider side of a nylon T-nut slide, then through a 3/8" USS metal washer, then through the slot in the left leg from its outer side. Align the knob shaft with one of the bottom holes in the left upright, then tighten the knob into the hole. Repeat with a second plastic knob, nylon T-nut slide, and 3/8" USS metal washer, inserting the knob through the same slot and into the other bottom hole.

Repeat this process for the right leg and the right upright, attaching the right leg on the outer side of the right upright with two more plastic knobs. Your loom can now stand up on a work surface.

To fold up the leg extensions: Loosen the knobs at the back of each leg, flip the extensions up, and retighten the knobs. If the leg extensions seem loose, adjust where the knobs sit in their slots in the legs.

To tilt, raise, or lower the weaving surface: Loosen the four knobs at the front of the legs, position the loom as you wish, and retighten the knobs.

**8.** Attach the warp wedge bar (1/2" wooden dowel) and cartoon holder (1/4" wooden dowel): Fit the larger dowel between the rubber bumpers on the left and right uprights (Figure 8). Gently flex the smaller dowel and fit it into the holes of the uprights just below the top beam. You can hang a weaving cartoon from this holder with tape, binder clips, zip ties, etc.

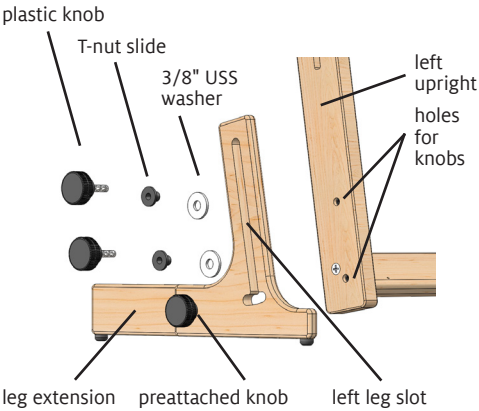


*FIGURE 7: ATTACH THE LEGS*

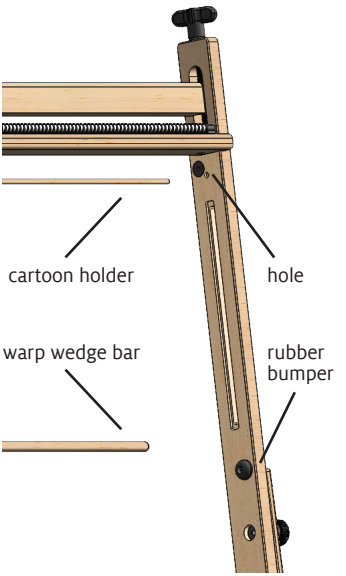


*FIGURE 8: ATTACH THE WARP WEDGE BAR AND CARTOON HOLDER*

**9.** Install the shedding device: If you plan to warp the loom immediately, attach the shedding device after warping. These illustrations show the handle on the right, but you can install the handle on the left if you prefer.

Orient the open riser (without the handle) and the handle riser with their grooves at the back of the loom and facing each other.

Attach the open riser (Figure 9A): Insert a round plastic knob through a thick black 1/4" nylon washer, then through the small hole in the open riser from its outer side. Place a small 1/4-20 x 3/4" T-nut within the large slot in an upright, with the T-nut's wide end on the inner side of the loom—see Figure 9B for placement. Screw the plastic knob into the T-nut, tightening just enough to hold the open riser in place on the upright.

Attach the handle riser (Figure 9B): Insert the beam of the shedding device into the large hole of the open riser, making sure that the handle is at the front of the loom. Place a small 1/4-20 x 3/4" T-nut within the large slot in the other upright, with the T-nut's wide end on the inner side of the loom. Insert a round plastic knob through a thick black 1/4" nylon washer, then through the handle riser from its outer side. Screw the plastic knob loosely into the T-nut. Align the handle riser with the open riser and tighten both handles.

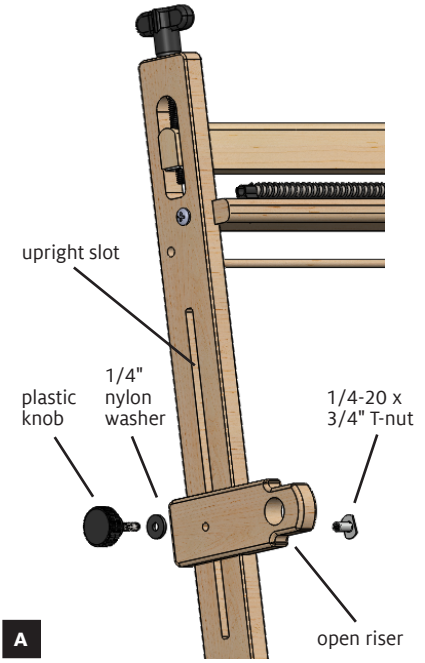
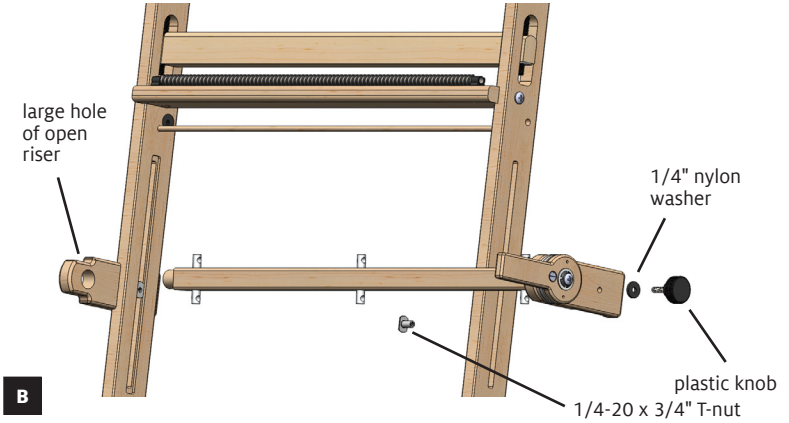



*FIGURE 9: INSTALL THE SHEDDING DEVICE*



You can raise and lower the shedding device by loosening the plastic knobs, positioning the shedding device as you wish, and retightening the knobs. Always keep the shedding device parallel to the top beam and the bottom beam; it should not slant.

**10.** Add metal heddle rods to the shedding device (Figure 10): You can complete this step when you install the Texsolv heddles. Set the handle in neutral position, parallel to the risers. From the open riser side, slide a heddle rod through all three rod supports and secure each end with a rubber O-ring. Repeat for the second heddle rod.

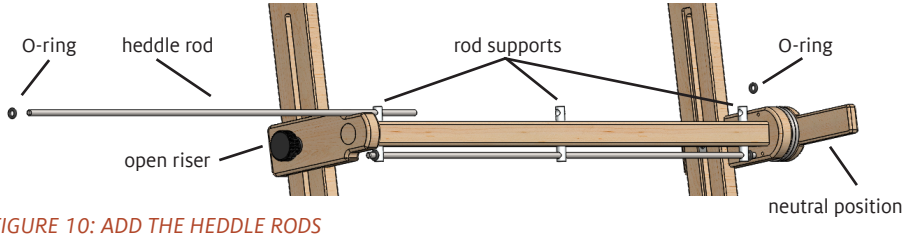



*FIGURE 10: ADD THE HEDDLE RODS*

# Warping

## WARP THE LOOM

You will wind a continuous warp (unless your Arras Loom has the beam upgrade).

**1.** Raise or lower the tension beam to place it midway in its slots.

**2.** Remove the shedding device if it is installed.

**3.** Select the warp coil for your sett.

| *Coil color* | *Sett* |
|---|---|
| blue | 4 threads per inch |
| gold | 5 threads per inch |
| red | 6 threads per inch |
| black | 8 threads per inch |

**4.** Install the warp coil: Remove the warp sett rod from its clips on the top beam and slide the rod through your desired coil. Clip the warp sett rod onto the top beam, fitting the coil between the clips (Figure 11). Use clips on the top if you want to warp from the front or use clips on the back to warp from the back. (After warping is completed, you can carefully slide the rod and coil around to the top, if desired.)

**5.** Set the loom face down or upright on a table. If the loom is upright, raise its height: loosen the four knobs holding the legs to the uprights, push the weaving area to its highest position, and retighten the knobs. Now your warp yarn can pass under the bottom beam.

**6.** Follow the warping path, beginning on the next page, with your warp yarn.

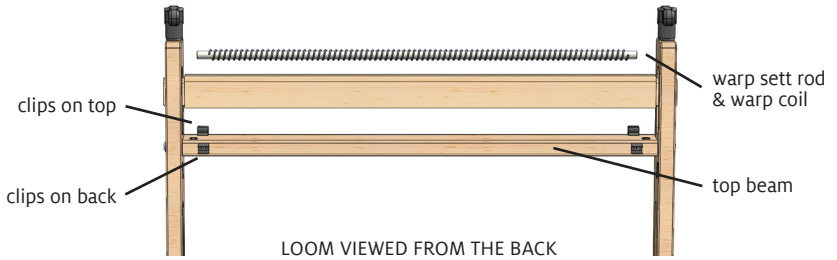



*FIGURE 11: INSTALL THE WARP COIL*

**Warp yarn always goes around the outside of the loom. It never travels from the front to the back or vice versa.**

*Path 1:* Tie the yarn onto the warp wedge bar next to the right upright. From the **back** of the loom, pass the yarn to the bottom beam.

*Path 2:* Pass the yarn under the bottom beam to the **front** of the loom, then up to the tension beam. As the yarn passes the top beam, fit it into a dent of the warp coil.

*Path 3:* Pass the yarn over the tension beam to the **back** of the loom, down to the warp wedge bar.

*Path 4:* Pass the yarn around the warp wedge bar, then head up to the top of the loom. You're still at the **back** of the loom.

*Path 5:* Pass the yarn over the tension beam to the **front** of the loom and go down to the bottom beam. As the yarn passes the top beam, fit it into the next dent of the warp coil. **Note:** These illustrations spread out the warp to clearly show the warping path; do not skip dents in the warping coil unless you wish to change the sett.

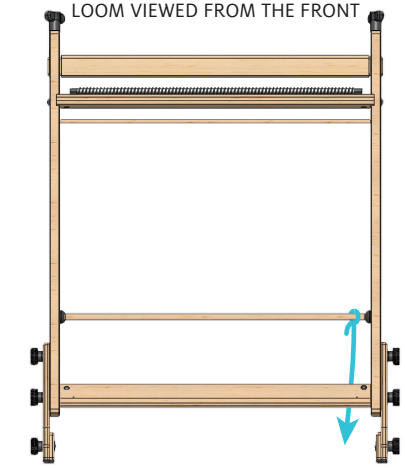
*Path 6:* Pass the yarn under the bottom beam to the **back** of the loom, then up to and around the warp wedge bar. This completes one full repeat of the warping sequence, equivalent to two warp ends.

*Path 7:* Pass the yarn down toward the bottom beam. You're still at the **back** of the loom.

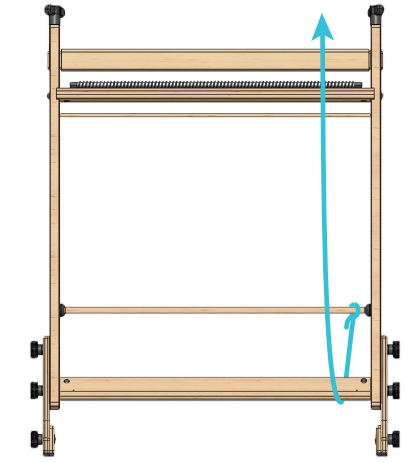
*Path 8:* Begin the next repeat: pass the yarn under the bottom beam to the **front** of the loom, taking it up to the tension beam. As it passes the top beam, fit the yarn into the next dent of the warp coil. Now you're back in position for Path 3.

Repeat Paths 3 to 8 until the desired number of ends have been warped. Tighten the warp ends if needed and tie the yarn around the warp wedge bar.

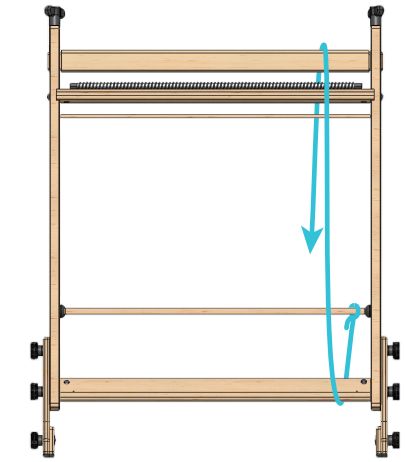
LOOM VIEWED FROM THE FRONT



PATH 1

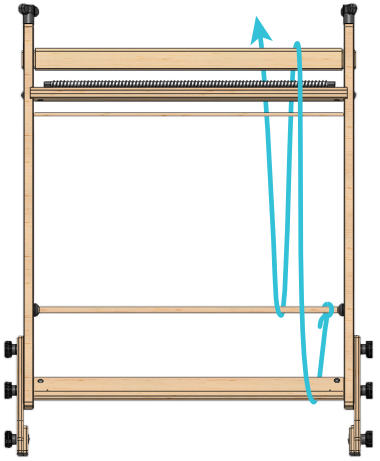


PATH 2

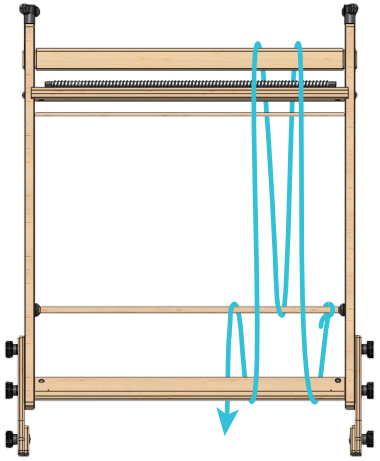


PATH 3

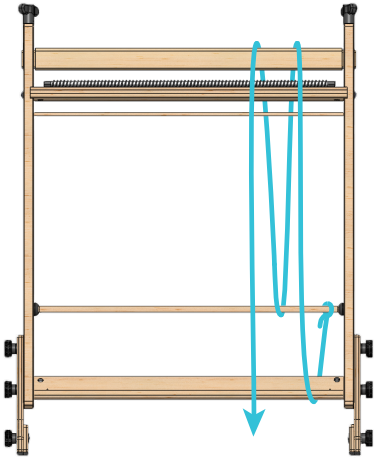
## INSTALL HEDDLES ON THE



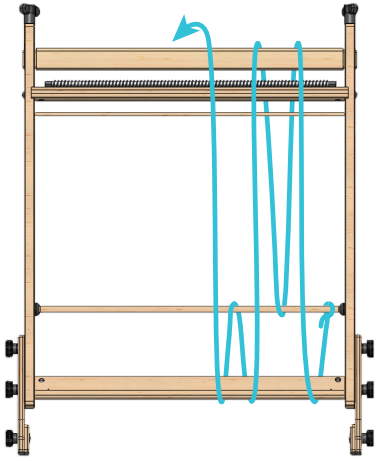
PATH 4



PATH 6



PATH 5

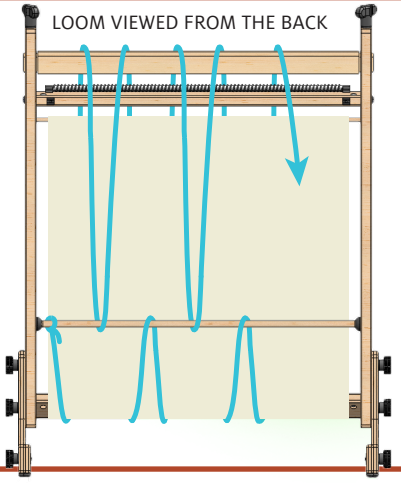


PATH 7

## WARPING HINT

Try this if you are having trouble warping:

- Remove the warp wedge bar.
- Wrap the loom with a wide strip of paper. Loop the strip around the cartoon holder and bottom beam, then secure it with tape. The paper can be as wide as your warp or you can use a narrower strip to get the hang of the warping sequence.
- With the back of the loom facing you, replace the warp wedge bar as shown at right.
- Warp the loom following Path 1 to Path 8.
- Remove the paper before tightening the tension on the warp.



## SHEDDING DEVICE

The shedding device allows for much faster weaving of plainweave. Texsolv heddles attach the warp threads to the two heddle rods: each rod holds **every other** warp thread. As you weave, you will raise and lower the handle. This action will lift every other warp thread, making a shed for the weft yarn.

Install the shedding device as described in "Loom Assembly," Step 9.

Add heddles to your warp:

**1.** Unwind Texsolv heddles from the spool. You'll see long loops alternating with short loops; the long loops are your heddles. Cut every short loop in half crosswise with sharp scissors, as shown by the dotted lines in Figure 12.

**2.** (Optional) Weave a pick-up stick over and under the warp threads across the width of the loom. The threads on top of the stick will be attached to the first heddle rod; those under the stick will be attached to the second heddle rod.

**3.** Set the handle on the shedding device in neutral position so heddle rods can be removed. Take both rubber O-rings off a heddle rod and slide the rod away from the handle of the shedding device. Slide the rod out of two rod supports (the center one and the one closest to the handle), until it rests only in the rod support closest to the open riser. The end of the heddle rod is now free between the open riser support and the center support.

**4.** Start attaching heddles at the open riser side of the warp. Fold a heddle in half around the first warp thread and slide the heddle's two loops onto the free end of the heddle rod, as shown in Figure 13, page 11. Attach **every other** warp thread until you reach the center rod support.

**5.** Slide the heddle rod through the center rod support and continue attaching **every other** warp thread until you reach the handle rod support. Slide the heddle rod through this rod support and secure

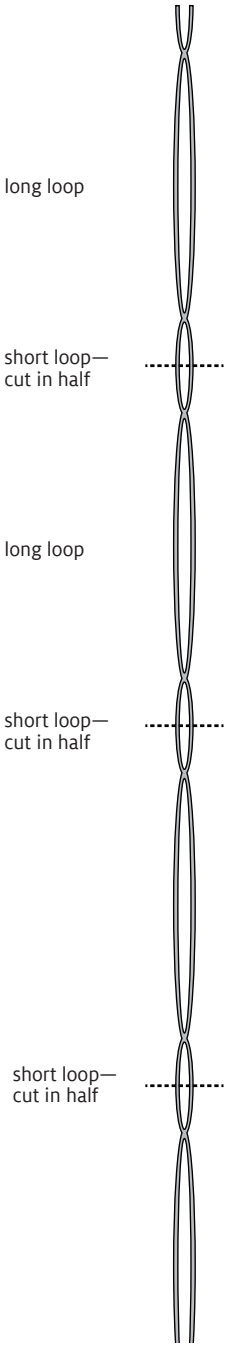



*FIGURE 12: CUT HEDDLES*

both ends with rubber O-rings.

**6.** Repeat Steps 3 through 5 with the second heddle rod, this time folding heddles around the unattached warp threads.

## Weaving

To maximize warp length, loosen the tension on the warp by lowering the tension beam. Push the warp wedge bar down to the bottom beam. Now tighten the tension (use the handles to raise the tension beam) to a very firm tension.

### SPREAD THE WARP

To spread the warp evenly and provide a firm base for weaving, make a twined edge across the bottom of the warp.

- Use a yarn slightly heavier than your warp yarn. Cut a length approximately 2-1/2 times the width of your warp.
- Starting at one side of your warp, wrap the twining yarn around the first warp thread and adjust the twining yarn ends to be the same length. Twist the twining yarn ends over each other and pull firmly to tighten the twist (Figure 14).
- Continue to wrap each thread, twisting the twining yarn once between each pair of warp ends until all the ends are wrapped. Tie off the twining yarn with an overhand knot.

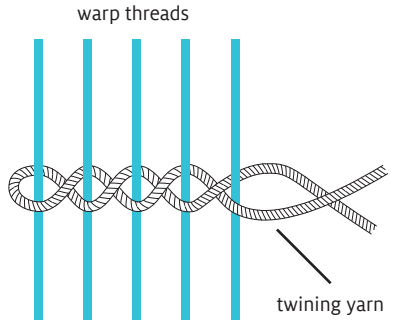
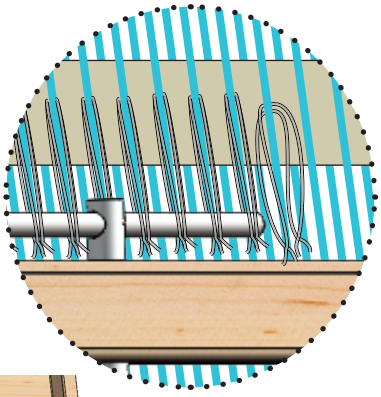



*FIGURE 14: MAKE A TWINED EDGE*



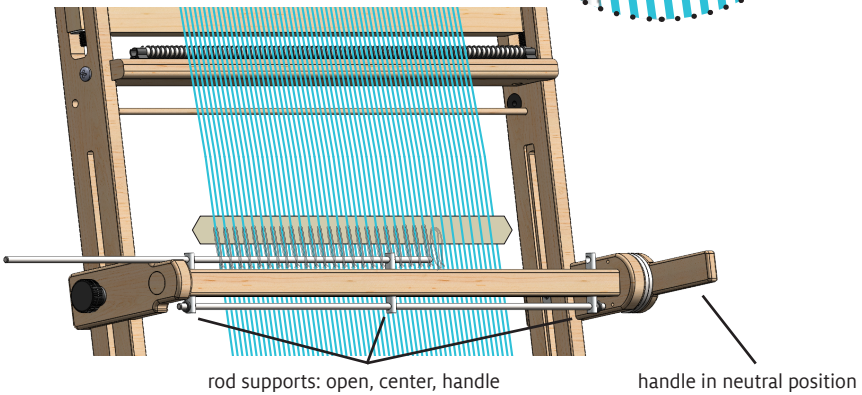



*FIGURE 13: INSTALL HEDDLES*

## WEAVE WITH THE SHEDDING DEVICE

Wind a shuttle with weft yarn. As you weave, alternate sheds by raising and lowering the handle of the shedding device. When the handle rests parallel to the risers, the shedding device is in neutral position.

1. Make the first shed: raise the handle of the shedding device.
2. Insert the weft yarn through the open shed. This is the first pick.
3. Lower the shedding device handle to neutral position.
4. Beat the weft pick down with a tapestry beater.
5. Make the second shed: lower the handle of the shedding device. Repeat Steps 2 to 5 to make the next pick.

Continue to alternate sheds, inserting a weft pick in each shed to create the basic plainweave structure.

## ADVANCE THE WARP

When the weaving is a few inches long, advance the warp:

- Lower the tension beam a small amount by turning both handles.
- On the back of the loom, pull up on the warp wedge bar until the front of the weaving has moved to the desired position.
- Raise the tension beam so that the warp is taut.

## ADJUST THE TENSION BEAM

When you need to tighten tension on the warp, turn the tension beam handles to raise the tension beam. To loosen tension on the warp, turn both handles to lower the tension beam.

## FURTHER READING

Glasbrook, Kirsten. *Tapestry Weaving.* Search Press, 2015.

Harvey, Nancy. *Tapestry Weaving: A Comprehensive Study Guide.* Echo Point Books, 2015.

## Arras Loom Accessories

*ARRAS BEAM UPGRADE KIT, SL2225*

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