

TYPES OF FLOOR LOOMS AT RUTHIE'S

A direct tie-up loom uses a one-to-one ratio where each treadle is connected to a single shaft. This is in contrast to other looms where a single treadle can be connected to multiple shafts. With a direct tie-up, you press multiple treadles at once to lift multiple shafts for a specific weaving pattern, which can help in understanding the pattern's components.

- Examples at Ruthie's: We have a direct tie up Harrisville Design (#66), and a direct tie up Wolf Pup (owned by Nova).
- Advantages: Pretty straight forward – step on a treadle, raise one shaft; no changing tie-ups; and allows for many variations of shaft lifting with just 4-treadles (but using two feet at once)
- Disadvantages: treadling requires two feet at a time

A jack loom has a rising shed, meaning that the shafts lift when the corresponding treadle or lever is depressed. You only tie up those shafts you want to raise.

- Examples at Ruthie's: We have many jack looms: The Wolfs are mostly Jack looms, the Harrisville Design, Norwoods, and Gilmores are all Jack looms. See loom list for loom numbers.
- Advantages: Easier to tie up (particularly Wolfs) and to change tie up because you only tie up the shafts you want to raise AND you can expand number of possible tie up combinations by having a couple treadles that are tied up to a single shaft, used in combination with other treadles (two feet). This comes in handy for double weave and other complex weaving structures
- Disadvantages: Weaving on a jack loom can require more physical effort than counterbalance or countermarche looms.

A counterbalance loom has pairs of shafts (usually 2 or 4) that work opposite each other on rollers or pulleys.

- Examples at Ruthie's: We have Allen counterbalance looms (#1, #38), LeClerc (#8), as well as a Baby Bergman counterbalance (#67)
- Advantages: This symmetrical operation of the shafts makes these looms great for balanced weaves like plain weave and 2/2 twill (our beginning projects)
- Disadvantages: challenging for unbalanced weave structures like 1/3 twill.

A countermarche loom is a floor loom that uses two sets of lamms (levers) to raise and lower warp threads independently, allowing for a balanced and consistent tension across the warp during weaving.

- Examples: Most of our Bergman Looms are countermarche, in addition to most of the Gilmakras (eg # 61 and #63).
- Advantages: This mechanism creates a clear shed and is especially useful for complex patterns or when using many shafts, and is known for lighter treadling and suitability for weaving rugs and non-resilient fibers.
- Disadvantages: Harder to tie up since you have to tie up every shaft to every treadle instead of only the shafts you want to raise like happens on a jack loom (all shafts either go up or down).