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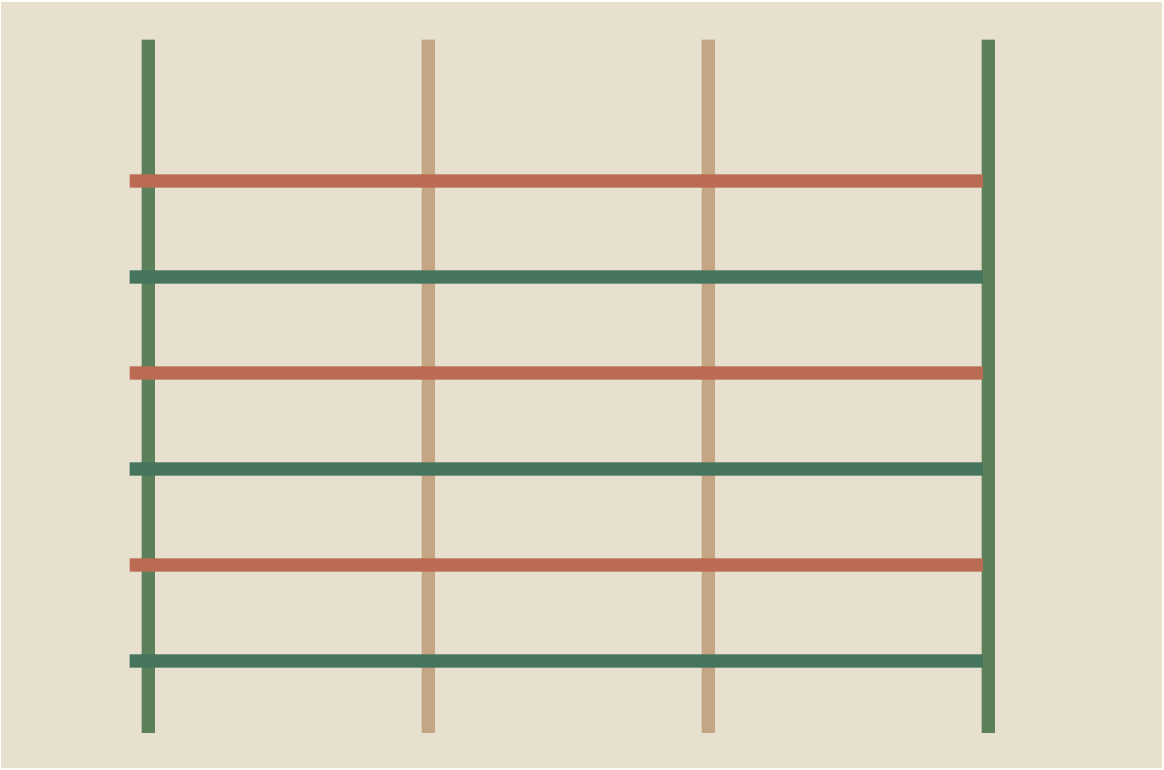
MAKE / FREE ORIGINAL GUIDE / STP-MAKE-F089

TIE RELIABLE SQUARE KNOTS

in Macrame



FOUR CORDS / SIX COMPLETE SQUARE KNOTS

12 mirrored half knots. Original educational cord art.

NOT a tested load-rated or safety-certified knot.

Edition: Steadleaf Press FREE MAKE original adult digital guide, independently technically and editorially reviewed with final verdict PASS. No physical knot, cord friction, pull-strength, hanging-load, material, child/pet safety, printing or size-calibration testing has been performed. The word reliable in the title means a repeatable recognition and technique routine, NOT certified knot holding strength.

A recognizable knot instead of a guess

A basic macrame square knot is composed of two half knots made in opposite directions. It typically uses four cords arranged left to right: outer cord 1 (left working), middle cords 2 and 3 (filler), and outer cord 4 (right working). In this guide, cord numbers are position labels before beginning, while working ends switch sides during the first half knot. To avoid confusion, after the first half, follow the cord currently on the right for the return half; do not assume that the same physical strand stays on the same side.

The first half is LEFT-START: take the working cord currently on the left OVER the front of fillers 2 and 3 and UNDER the right working cord. Take the right working cord BEHIND the fillers, then UP AND FORWARD through the open loop on the left, toward you. Ease the two working ends outward evenly without dragging the fillers sideways.

The second half is RIGHT-START: take the working end that is now on the right OVER the front of the fillers and UNDER the current left working end. Take the current left working end BEHIND the fillers, then UP AND FORWARD through the loop on the right, toward you. Bring both outer ends snug at a modest, even tension; that is one complete square knot. For the next square knot, restart left, then right. Thus, 6 finished square knots = 12 half knots, in L-R / L-R / L-R / L-R / L-R / L-R pairs. Repeating left-start without the right mirror may create a spiral, not the flat target chain.

This project is a short practice sampler, not a plant hanger, leash, restraint, climbing line, tie-down, swing, jewelry closure, hanging fixture or safety-rated fastener. Do not infer load capacity from its appearance. Even familiar knots can behave differently in cotton, polyester, slippery cord or recycled fibers, especially after handling or wetting.

Materials and four-cord layout

Choose four separate lengths of relatively smooth, visible craft cord of similar thickness, ideally with contrasting colors for the outer working pair and neutral-colored middle filler pair. Suggested uncertified starting lengths are two outer cords about 100 cm each (1 and 4) and two filler cords about 70 cm each (2 and 3). The outer cords use more length around the fillers. For thick cord (for example, around 4-5 mm), start with longer lengths if needed, such as 120-140 cm for each outer worker and 80-90 cm for each filler; these are cautious practice allowances, not guaranteed measurements. Your actual consumption depends on cord thickness, tightness, number of knots and how much tail you reserve; this is not a guarantee of six knots with every fiber. If an end gets too short, stop rather than trying to splice a strength-rated connector.

Use a rigid flat work surface, a removable clamp or protected clipboard clip, a small clean scrap of card under the clamp to prevent abrasion, a ruler, pencil and the printed practice record. Lay all four cords vertically downward, left to right, 1-2-3-4. Secure about 8-10 cm of the upper ends under the clip or tape them well to a temporary work board; the anchor is only a practice aid and must never support a person, animal, pot, glass or other object. Check before each tightening that the four cords have not slipped free. If the clamp shifts or the cords fray, stop.

A modest three-finger spacing between the outer working cords and the two center fillers is a convenient hand positioning cue, not a required finished width. Work on a tabletop; do not suspend weight from the sample to check its quality. Keep cords, loops and tools away from infants and pets. Ask a capable adult to operate scissors if the learner cannot cut safely; scissors are not necessary to finish the main lesson.

The two mirrored moves, written clearly

Pattern A - LEFT-START half knot

1. With cords 2 and 3 hanging straight, carry the left working end over their front from left to right, passing under the right working end. A loose visible loop remains on the left.

2. Lead the right working end behind both fillers, then up and forward through that left loop.

3. Bring the working ends outwards to form a gentle horizontal half knot. Do not pull the filler pair apart. Mark L in your record, but do not count a complete square knot yet.

Pattern B - RIGHT-START mirrored half knot

1. After A, the physical outer working ends have exchanged sides. Take the working end currently on the right over the front of fillers 2 and 3, then under the current left working end, leaving a loop on the right.

2. Lead the working end currently on the left BEHIND BOTH fillers, then bring its tip UP AND FORWARD THROUGH the right loop, toward you.

3. Gently snug both working ends to seat this second half beside the first. Record R. The completed L+R pair counts as one square knot, not two.

A plain hand-check: after tightening, the two halves form a balanced, flatter-looking band around the center fillers. If you accidentally use L+L, you have two same-direction half knots, a different structure likely to start turning. Undo only the incorrect portion while it is still accessible and remake the mirror half. Do not force a twisted strand straight by pulling harder.

Step-by-step instructions

1. Prepare a safe low-tension practice surface

Work seated at a stable, clear table, not beside a crib, pet area or heat source. Gather four craft cords, temporary board, padded clip or sufficient removable tape, ruler and record sheet. This is a decorative adult technique lesson; no load rating, strength or grip test is part of the exercise.

2. Cut or select four separate practice cords

Select two working cords 1 and 4, roughly 100 cm each, and two filler cords 2 and 3, roughly 70 cm each. These are starting suggestions for a short sample, not exact material-use claims. Check for damaged, slippery or split ends. Do not try to lengthen the central fillers using an unknown knot.

3. Anchor the four upper ends in their numbered order

Lay the cords vertically with the two shorter fillers in the middle: 1 - 2 - 3 - 4 from left to right. Hold the upper 8-10 cm of each under a protected clipboard clamp or removable tape on the work board. Leave ample free working length below. Tug no harder than is needed to check whether the ends will stay in position during ordinary finger work; stop if they slip.

4. Separate working cords from fillers

Gently position cords 2 and 3 straight down through the intended knot area. They should remain side by side. Spread cords 1 and 4 to opposite sides where you can move them without tangling. The working cords loop around the middle two; the fillers do not exchange positions or form a full knot by themselves.

5. Build the opening loop from the left

Take the currently left working cord across the front of fillers 2 and 3, going left to right, and pass it under the currently right working end. Leave a loose, easily visible loop to the left of the fillers. Pattern A records this OVER-front / UNDER-right relationship.

6. Thread the right working end through the left loop

Bring the currently right working end BEHIND the two filler cords and bring its tip UP AND FORWARD through the left loop toward you. Do not thread it in front of the fillers. Ease the left and right working ends gently apart until the FIRST LEFT-START HALF KNOT is formed. The cord ends have now exchanged sides.

7. Pause and record only a half knot

Keep the two fillers straight and record L in the first slot of Record 1. Do not call this one complete square knot. If the half knot lies unevenly, ease it open before tightening more. Counted progress is 0 complete square knots / 1 half knot. The original right-side working cord is now physically on the left, and the original left-side working cord is now on the right; visually confirm this side exchange before starting Step 8.

8. Start the return half from the right

Now select the working end currently on the RIGHT, even if it began as original cord 1. Bring it across the front of both fillers from right to left and UNDER the current left working end. The new open loop must be on the RIGHT, the mirror image of Step 5.

9. Thread the left end through the right loop

Lead the current left working end BEHIND fillers 2 and 3 and UP AND FORWARD through the loop on the RIGHT, toward you. Do not accidentally repeat the left-start direction. Draw both ends outwards with moderate tension, keeping the fillers parallel and avoiding a hard jerk.

10. Seat and recognize the first complete square knot

Gently snug the right-start half immediately below the first left-start half. Record R beside L in Record 1. The sequence L+R = 1 finished square knot = 2 half knots. Look for the balanced flat knot, not a guaranteed failure load or an exact measured shape.

11. Make four more consistent L+R pairs

Repeat Steps 5-10 four additional times, always starting each new pair with L, then mirroring with R. You now have five complete knots. Keep each knot close enough to see the continuous flat pattern without compressing or distorting the fillers. Each pair should consume the outer working cords, not drastically shorten the middle pair.

12. Make the sixth pair and audit the count

Complete one final L+R pair. Count six completed square knots and twelve half knots overall. Record the pattern as LR / LR / LR / LR / LR / LR. A partly started seventh half is NOT part of the target; undo any accidental extra half: gently ease the working ends back toward the knot to loosen it, then withdraw the threaded end back through its loop without tugging the fillers. If you run short of working cord before the sixth pair, record the actual count rather than forcing the pattern or secretly joining strands.

13. Inspect flatness, ends and any spiraling

Lay the sampler flat on clean card. Check whether the chain turns to one side, whether the fillers are still centered, and whether any half knot is loose. If the last pair twisted, unpick that pair while the original ends are accessible, compare Pattern A with Pattern B, and remake the mirrored half. Do not promise the knot is durable simply because it looks flat.

14. Document and store the practice piece

Complete Record 2: cord types and lengths, observed full-knot count, apparent flatness/twist, working-tail length and whether the clamp slipped. Remove the temporary anchor and leave remaining lengths uncut or finish them using a fiber-appropriate method for non-load-bearing display only. Store dry and flat. Never hang a plant or other object from this untested sample or place loose cords near children or pets.

Fix, care and preserve

The sampler starts to twist into a spiral

Check whether two consecutive half knots began from the same side. A flat square-knot pair alternates a left-start and a right-start. Undo just the wrong half knot and remake its mirror; tight pulling cannot convert L+L into L+R.

You forgot which original cord is now on which side

The two working ends exchange positions as they cross. Follow positions, not permanent left/right names: after Step 6, form the new loop from the end now on the right. Labeling the fillers as 2 and 3 is stable; labeling outer working-end positions is not.

The center two filler cords are crooked

Relax the surrounding working ends, flatten the fillers and re-seat the last half knot with more balanced hand tension. Do not tie a new knot over a crossed or pinched filler pair.

The clip shifts or ends shorten unexpectedly

Stop and reset the practice anchor. The suggested lengths are approximate and may be inadequate for unusually thick or slippery fiber. Do not add a splice and claim the result is load-rated. Record that the target count was not reached with your material.

A knot looks tight but may slip

Visual flatness is a learning cue, not proof of holding power. Material, wetting, wear, tail length and direction of pull all change behavior. The exercise is not for suspension, restraints or safety-critical purposes. Do not use heat or water to "set" the knots without fiber-maker directions.

Pattern 1 - Two opposite half knots

Represent the front-facing crossings as L: left working end OVER the two fillers, UNDER the right end; right end BEHIND the fillers, UP AND FORWARD through the left loop toward you. Then R: current right end OVER the two fillers, UNDER current left; current left end BEHIND fillers, UP AND FORWARD through the right loop toward you. The original colored ends change sides between halves. The diagram is a teaching schematic, not a diagram to scale.

Pattern 2 - A six-square-knot practice tally

Write L/R as two half-knot columns for each completed knot #1-6. Count six L entries and six R entries - twelve half knots in all, forming six complete square knots, not twelve square knots. The two fillers remain central and do not participate as working ends. A L/L or R/R entry signals a direction mistake to examine. Patterns 1 and 2 are new original Steadleaf charts; follow the actual cord position if your view differs.

Record 1 - Half-knot direction and symmetry

Square knot # | First half (L = left-start) | Second half (R = right-start) | Flat / twist / correction

1 | _____ | _____ | _____

2 | _____ | _____ | _____

3 | _____ | _____ | _____

4 | _____ | _____ | _____

5 | _____ | _____ | _____

6 | _____ | _____ | _____

Complete knots: ____ / 6 Half knots: ____ / 12

Were the filler cords straight? _____ Did the sampler turn? _____

Record 2 - Fiber, anchor and result

Cord type/size: _____ Date: _____

Outer working cord length (approx each): ____ cm

Middle filler cord length (approx each): ____ cm

Was the removable anchor stable? _____

Any slipping, fraying, imbalance, or unexpectedly short ends? _____

_____

Was the sample physically load-tested? NO (do not treat this as certified)

Next practice change: _____

Technical origin, safety and reference scope

This new textual teaching sequence, twelve-half-knot record, direction comparison diagrams and records are original Steadleaf Press digital educational content, not copies of diagrams from external sources. General square-knot technique was checked against:

- DMC, "Step by Step Macrame Stitch Guide" (square knots and half-knot spiral): https://www.dmc.com/CA/en/sbs-macrame-stitch-diagrams

- Macrame Makers Club, "Square knot": https://macramemakers.club/blog/course/basic-knots-square-knot/

- Fire Mountain Gems, "Macrame Basics, Techniques and Finishing Techniques": https://www.firemountaingems.com/learn/categories/jewelry-medium/fiber-textile/how-tos-on-fiber-textile/J14Y-video-tutorial-with-in

The specific original artwork and words from those sources are not reproduced. There have been no physical cord, anchor, cutting, friction, real print, strength, load, durability, washing, pet or child-safety tests by the publisher. The tutorial cannot establish a knot’s safety for load bearing or a specific final size.

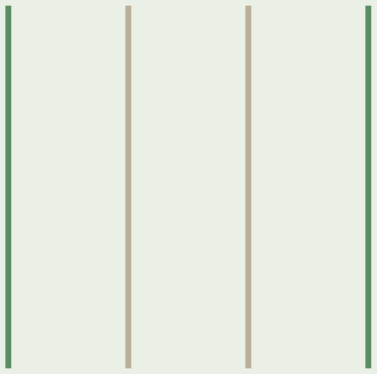
Two mirrored half knots: left, then right

Four strands start 1 - 2 - 3 - 4. Outer 1 and 4 are working.

Middle 2 and 3 remain vertical filler strands.

A LEFT-START

Loop on LEFT



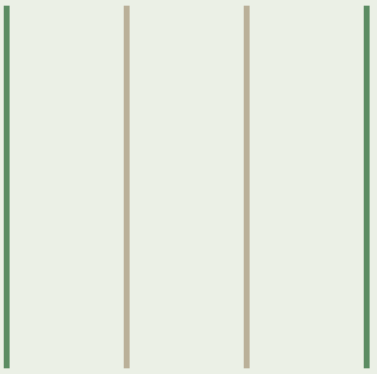
LEFT OVER fillers

RIGHT BEHIND fillers

UP through LEFT loop

B RIGHT-START

Loop on RIGHT



RIGHT OVER fillers

LEFT BEHIND fillers

UP through RIGHT loop

Cross the OUTER working ends. The fillers do not change places.

Complete a pair as A + B = 1 flat square knot (not 2).

After A, the working ends exchange sides. Follow POSITION.

Both threaded tips emerge UP + FORWARD, toward the maker.

Digital instructional schematic only; not a knot-strength test.

Six completed square knots = twelve half knots

Each row is ONE complete square knot with two opposite halves.

KNOT 1	**L**	**R**	**= 1**
KNOT 2	**L**	**R**	**= 1**
KNOT 3	**L**	**R**	**= 1**
KNOT 4	**L**	**R**	**= 1**
KNOT 5	**L**	**R**	**= 1**
KNOT 6	**L**	**R**	**= 1**

TOTAL: 6 L + 6 R = 12 half knots = SIX square knots.

L/L or R/R in one row is a direction mistake; assess for spiral.

Half-knot direction & symmetry

Write L then R for every completed knot. Do not count a half as full.

Knot	LEFT L	RIGHT R	Flat / twist / fix
1			
2			
3			
4			
5			
6			

Complete square knots: _____ / 6 Half knots: _____ / 12

Filler cords straight? _____ Any spiral? _____

Original printable observation sheet; no real knot test.

Cord, anchor and finished sample

Outer working lengths: ____ cm each Material: _____

Middle filler lengths: ____ cm each Date: _____

Was the temporary anchor stable? _____

Any cord slipping, splitting or unexpectedly short end? _____

Six full knots seen: ____ Twelve half knots recorded: ____

Does the sample lie flat on clean card? _____

Any direction correction made (L/L, R/R, or missed mirror)? _____

No physical load / holding-power / slip-strength test conducted.

Next practice variation or improvement: _____

This decorative practice sampler MUST NOT carry loads.