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Helix Tatting was developed in the autumn of 2019 and introduced to the world at Palmetto Tat Days "Tatting the Rainbow". It is a three-dimensional cord, where multiple threads form chain segments of double stitches in the shape of a corkscrew or spiral staircase. It is Similar to I-cord from knitting or bauble tatting without the need for separate "ribs".

Techniques & Elements:

Helix Tatting, Thrown off Chains, Thrown off Rings, Working with Beads (up beads and down beads), Working with multiple Shuttles.

Materials:

Lizbeth ® Thread size 20 in up to five colors

Delica ® Seed Beads size 11

Bracelet findings

Shuttles: Eight for option one and ten for option two

Abbreviations:

/= separator between segments of Helix Tatting Sequence #b aboh = Bead(s) at back of hand (# = how many beads to include in the loop when forming a ring)

b = Silver-Lined Seed Bead #10 (b superscript); Up bead, on BT b = Silver-Lined Seed Bead #10 (b subscript); Down bead, on CT

BT = Ball Thread

CT = Core Thread

ds = Double Stitch

CTM = Continuous Thread Method

HTS = Helix Tatting Sequence

Sh = Shuttle

TOC = Thrown Off Chain

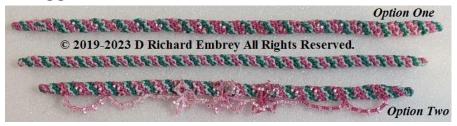
TOR = Thrown Off Ring

. = Close ring or adjust chain

* = number of times to repeat

something in parentheses or brackets





Notes:

- When commencing to tat the helix there are no knots, simply let the threads hang down from work. [You may find it helpful to start the first stitch on a paperclip or knitting stich marker].
- If your shuttles are not wound CTM in pairs: conceal tails in hollow center of helix cord; push any remaining exposed threads into the center of the helix tatting.
- One inch of Basic Helix Cord (see example), using seven shuttles consumes approximately 6" of size three thread per shuttle.
- Number your shuttles to keep them in order.
- Number your shuttles to keep them in order.
- At the conclusion of your helix tatting, simply cut threads leaving a
 5-inch tail on each thread. Conceal them one at a time. Thread a
 tapestry needle, go through one or two double stitch then up inside
 tatted helix cord about an inch, then out between double stitches.
 After all thread ends are in the helix and coming out between
 double stitches carefully cut each thread end close to the helix
 tatting. Push any exposed thread ends into the helix cord for a neat
 appearance
- The Helix Beaded Bracelets may be completed to any desired length to suite the wearer, or purpose.
- Do not reverse work unless instructed to do so.

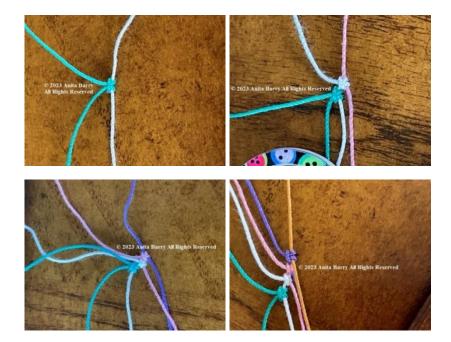
Helix Tatting Sequence:

Using the first two shuttles, chain a double stich(es). Replace ball thread shuttle with the core thread shuttle as the new ball thread shuttle and

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pick up next shuttle in sequence as the new core thread shuttle at each slash. (Drop BT shuttle and use the previous CT shuttle as the new BT shuttle; add the next higher shuttle number as the new CT shuttle). Should it be necessary to use the shuttle out of sequence, the shuttle numbers to be used will be notated in parentheses after the number of ds to be tatted. Similarly, if a TOR or TOC is to be made it will be noted in line with any particular directions involved. (The last stitch(es) in each round will be made with the first shuttle as core thread and the last shuttle as ball thread).

The Following photos show the first five steps in the helix sequence utilizing six individual threads on six shuttles:¹





The Following photos show the last two steps in the helix sequence utilizing four threads wound CTM on eight shuttles:





Finishing:

To end the project, cut threads leaving a 5" tail. Conceal thread tails one at a time by threading a tail onto a tapestry needle. Sew through the caps of two double stitches then take the tail up inside the tatted helix cord about an inch then out between double stitches. Carefully cut each exposed thread tail close to the helix tatting. If the ends are to be closed the tails may be threaded through in such a way as to close the opening; conceal the thread tails into non adjacent stitch caps.

¹ Photos used here with permission

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It is possible to make baubles and other shapes by first increasing the stitches made by each shuttle and then decreasing the stitches made by each shuttle. Stitch increases and decreases need not be symmetrical.

Caps in or caps out Helix Tatting Explained:

Caps out Helix Tatting: Caps are seen on the outside of the helix tatting. This makes a wider cord than Caps in Helix Tatting. For regular double stitches: hold the work with the active stitch in front of the work and the cord behind while making the stitch. To achieve the opposite direction of the spiral, use reverse order double stitches and hold the active stitch in back of the cord while making the stitch.

Caps in Helix Tatting: Legs are seen on the outside of the helix tatting. This method makes a smoother, tighter cord than Caps out Helix Tatting. For regular double stitches: hold the work with the active stitch behind the cord in front while making the stitch. To achieve the opposite direction of the spiral, use reverse order double stitches and hold the active stitch in front of the cord while making the stitch.



Lizbeth colors: 620 Azalea Med; 686 Seagreen Lt; 688 Seagreen Dk; 629 Azalea Lt; & 176 Pink Blossoms.

Helix Tatting with the working stitch in front of the helix cord:

Arrange the shuttles to the side starting with the first shuttle at the top. Pull shuttles from the top and place retiring shuttles at the bottom while at the same time moving the shuttles upwards.



Helix Tatting with the working stitch behind the helix cord:

Arrange the shuttles to the side starting with the first shuttle at the bottom. Pull shuttles from the bottom and place retiring shuttles at the top while at the same time moving the shuttles downwards.



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Examples:

The following examples are instructions for one complete round of the helix cord. Each round in each example is stated twice, first in conventional longhand and then in Helix Tatting Sequence (HTS) Shorthand. Should you wish to make the example continue to repeat the sequence until you have reached the desired length.

Example 1: Basic Helix Tatting Sequence



Longhand utilizing seven shuttles, wound separately, each thread making one stitch each:

Start:

Using Sh1 as BT & Sh2 as CT 1ds, snug stitch, drop Sh1. Using Sh2 as BT & Sh3 as CT 1ds, snug stitch, drop Sh2. Using Sh3 as BT & Sh4 as CT 1ds, snug stitch, drop Sh3. Using Sh4 as BT & Sh5 as CT 1ds, snug stitch, drop Sh4. Using Sh5 as BT & Sh6 as CT 1ds, snug stitch, drop Sh5. Using Sh6 as BT & Sh7 as CT 1ds, snug stitch, drop Sh6. Using Sh7 as BT & Sh1 as CT 1ds, snug stitch, drop Sh7.

Shorthand utilizing eight shuttles making one stitch each:

HTS (1./1./1./1./1./1./1.)

Example 2: Simple Helix Tatting Sequence



Longhand utilizing eight shuttles, CTM in four pairs, each thread making two stitches each:

Start:

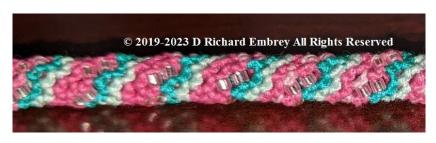
Using Sh1 as BT & Sh2 as CT 2ds, snug stitches, drop Sh1. Using Sh2 as BT & Sh3 as CT 2ds, snug stitches, drop Sh2. Using Sh3 as BT & Sh4 as CT 2ds, snug stitches, drop Sh3. Using Sh4 as BT & Sh5 as CT 2ds, snug stitches, drop Sh4. Using Sh5 as BT & Sh6 as CT 2ds, snug stitches, drop Sh5. Using Sh6 as BT & Sh7 as CT 2ds, snug stitches, drop Sh6. Using Sh7 as BT & Sh8 as CT 2ds, snug stitches, drop Sh7. Using Sh8 as BT & Sh1 as CT 2ds, snug stitches, drop Sh8.

Shorthand utilizing eight shuttles making 2stitches each:

HTS (2./2./2./2./2./2.)

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Example 3: Partially Beaded Helix Tatting Sequence



Longhand utilizing eight shuttles, wound CTM in four pairs, each thread making two stitches, a bead is used only in the last two sets:

Start (beads are pulled from BT):

Using Sh1 as BT & Sh2 as CT 2ds, snug stitches, drop Sh1.

Using Sh2 as BT & Sh3 as CT 2ds, snug stitches, drop Sh2.

Using Sh3 as BT & Sh4 as CT 2ds, snug stitches, drop Sh3.

Using Sh4 as BT & Sh5 as CT 2ds, snug stitches, drop Sh4.

Using Sh5 as BT & Sh6 as CT 2ds, snug stitches, drop Sh5.

Using Sh6 as BT & Sh7 as CT 2ds, snug stitches, drop Sh6.

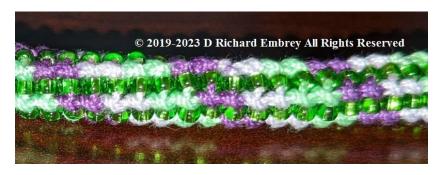
Using Sh7 as BT & Sh8 as CT b 2ds, snug stitches, drop Sh7.

Using Sh8 as BT & Sh1 as CT b 2ds, snug stitches, drop Sh8.

Shorthand utilizing eight shuttles making two stitches each, a bead is used only in the last two sets:

HTS (2./2./2./2./2./^b2./^b2.)

Example 4: Fully Beaded Helix Tatting Sequence



Longhand utilizing six shuttles, wound CTM in pairs, each thread making two stitches each where a bead is used in all sets:

Start (beads are pulled from BT):

Using Sh1 as BT & Sh2 as CT b 2ds, snug stitches, drop Sh1.

Using Sh2 as BT & Sh3 as CT b 2ds, snug stitches, drop Sh2.

Using Sh3 as BT & Sh4 as CT b 2ds, snug stitches, drop Sh3.

Using Sh4 as BT & Sh5 as CT b 2ds, snug stitches, drop Sh4.

Using Sh5 as BT & Sh6 as CT b 2ds, snug stitches, drop Sh5.

Using Sh6 as BT & Sh1 as CT b 2ds, snug stitches, drop Sh6.

Shorthand of beaded helix tatting utilizing eight shuttles making two stitches each, a bead is used in all sets:

HTS (b2./b2./b2./b2./b2./b2./b2./b2.)

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Example 5: Beaded Windowpane Helix Tatting Sequence



Longhand of a beaded windowpane helix tatting sequence utilizing five shuttles, wound separately, each thread making one stitch, where an up-bead and a down-bead are used in all sets:

Start (^b are pulled from BT and _b are pulled from CT):
Using Sh1 as BT & Sh2 as CT ^b _b 1ds, snug stitches, drop Sh1.
Using Sh2 as BT & Sh3 as CT ^b _b 1ds, snug stitches, drop Sh2.
Using Sh3 as BT & Sh4 as CT ^b _b 1ds, snug stitches, drop Sh3.
Using Sh4 as BT & Sh5 as CT ^b _b 1ds, snug stitches, drop Sh4.
Using Sh5 as BT & Sh1 as CT ^b _b 1ds, snug stitches, drop Sh5.

Shorthand of a beaded windowpane helix tatting sequence utilizing eight shuttles, making two stitches each where an up-bead and a downbead are used in all sets:

In the photo above, a green pipe cleaner/chenille stem has been inserted into the core of the helix cord.

Example 6: Beaded Thrown-Off Rings Helix Tatting Sequence

Longhand of a helix tatting sequence utilizing eight shuttles, wound CTM, each thread making two double stitches, with a Thrown-Off -Trefoil containing up-beads and down-beads at Sh4 between two double stitches (Thrown-Off Chains shown in photo are not included in the directions below):



Start (^b are pulled from BT and _b are pulled from CT):
Using Sh1 as BT & Sh2 as CT 2ds, snug stitches, drop Sh1.
Using Sh2 as BT & Sh3 as CT 2ds, snug stitches, drop Sh2.
Using Sh3 as BT & Sh4 as CT 2ds, snug stitches, drop Sh3.
Using Sh4 as BT & Sh5 as CT 1ds, drop Sh5 [TOR (Sh4; 5b aboh): (3ds, snug stitches, ^b _b 3ds, snug stitches, drop Sh4.
Using Sh4 as BT & Sh5 as CT, 1ds, snug stitches, drop Sh4.
Using Sh5 as BT & Sh6 as CT 2ds, snug stitches, drop Sh5.
Using Sh6 as BT & Sh8 as CT 2ds, snug stitches, drop Sh6.
Using Sh8 as BT & Sh8 as CT 2ds, snug stitches, drop Sh7.
Using Sh8 as BT & Sh1 as CT 2ds, snug stitches, drop Sh8.

Shorthand of helix tatting sequence utilizing eight shuttles making two stitches each with a Thrown-Off Ring with up-beads and down-beads at Sh4 between two double stitches:

HTS (2/2/2/1 (Sh4=BT & Sh5=CT), [TOR (Sh 4; 5b aboh): (3.^b_b 3.^b_h 3.^b_h 3.^b_h 3.^b_h 3.)] * 3, 1 (Sh4=BT & Sh5=CT)/2./2./2.).

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Example 7: Beaded Thrown-Off Chain Helix Tatting Sequence



Note: This row would be followed by seven other rows of eight shuttle helix cord where Sh9 & Sh10 are not used and the Thrown-Off chain would be joined back into the bracelet and another Thrown-Off Chain round would be worked, etc.

Longhand utilizing ten shuttles, wound CTM in five pairs, each thread from Sh1 to

Sh8, making two stitches, with a Thrown-Off Chain containing up-beads and down-beads worked with Sh9 & Sh10 between two double stitches (beads on helix cord are not included in the directions below):

Start (^b are pulled from BT and _b are pulled from CT):
Using Sh1 as BT & Sh2 as CT 2ds, snug stitches, drop Sh1.
Using Sh2 as BT & Sh3 as CT 2ds, snug stitches, drop Sh2.
Using Sh3 as BT & Sh4 as CT 2ds, snug stitches, drop Sh3.
Using Sh4 as BT & Sh5 as CT 2ds, snug stitches, drop Sh4.
Using Sh5 as BT & Sh6 as CT 2ds, snug stitches, drop Sh5.
Using Sh6 as BT & Sh7 as CT 2ds, snug stitches, drop Sh6.
Using Sh7 as BT & Sh8 as CT 2ds, snug stitches, drop Sh7.
Using Sh8 as BT & Sh9 as CT 1ds, snug stitches, drop Sh8, [TOC (Sh10=BT & Sh9=CT): (3ds, snug stitches, ^b _b 3ds, snug stitches, ^b _b 3ds, snug stitches, ^b _b 3ds)], fold the TOC just made to the outside of the Helix tatting (out of the way), using Sh8 as BT & Sh1 as CT 1ds, snug stitches, drop Sh8.

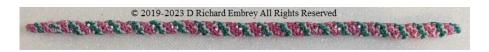
Shorthand utilizing ten shuttles making two stitches each with a Thrown-Off chain with up-beads and down-beads at Sh8 between two double stitches:

HTS (2./2./2./2./2./2./1, [TOC (Sh10=BT & Sh9=CT): $(3.^b_b 3.^b_b 3.$

Any number or combination of rings/chains may be thrown from a helix tatting sequence at any position during the sequence.

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Watermelon Dreams Beaded Helix Bracelet-Option One:

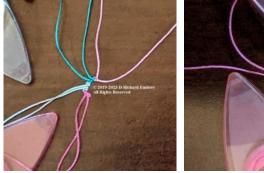


Preparation:

Load eight shuttles CTM in four pairs (two yards per shuttle; four yards per pair); load 172 beads divided evenly onto Sh7 & Sh8 (86 beads on each shuttle).

Arrange, label, and use in the following order: Sh1 & Sh2 = Color #620, Sh3 & Sh4 = color #686, Sh5 & Sh6 = color #688; Sh7 (86 beads) & Sh8 (86 beads) = color #629.







Directions for Option One:

Setup Rounds 1-3: HTS (1./1./1./1./1./1.), [You may find it helpful to start the first stitch on a paperclip or knitting stich marker]

Round 4-6: HTS (2./2./2./2./2./2.)

Middle Round 7: HTS (2./2./2./2./2./^b2./^b2.) Repeat until tatting measures 6.5" in length or length desired less half an inch (for findings).

Beadles Round: HTS (2./2./2./2./2./2.), repeat twice more.

Closing Rounds: HTS (1./1./1./1./1./1.), repeat twice more.

Finishing:

Cut shuttles from work, leaving a six-inch tail on each thread. Close end of bracelet while concealing threads; hide the thread tails into a couple of caps and then into the core of the Helix Tatting. Wet block if desired. Attach bracelet findings of your choice to the beginning and the end of bracelet. Enjoy your Beaded Helix Bracelet!





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Watermelon Dreams Beaded Helix Embellished **Bracelet-Option Two:**



Preparation:

Load eight shuttles CTM in four pairs (two yards per shuttle; four yards per pair); load 140 beads on Sh7 & Sh8 divided evenly. Load 90 beads onto Sh9 & Sh10 CTM with 3 yards on each shuttle; six yards total. 60 beads on Sh9 and 30 beads on Sh10.

Arrange, label, and use in the following order: Sh1 & Sh2 = Color #620, Sh3 & Sh4 = color #686, Sh5 & Sh6 = color #688; Sh7 (70beads) & Sh8 (70beads) = color #629; & Sh9 (60beads) & Sh10 (30 beads) = color #176.





Directions for Option Two:

Rounds 1-3 (Sh1 up to Sh8): HTS (1./1./1./1./1./1./1.), [You may find it helpful to start the first stitch on a paperclip or knitting stich marker]

Round 4 & 5 (Sh1 up to Sh8): HTS (2./2./2./2./2./2.)

Round 6: HTS (2./2./2./2./2./1. (Sh8=BT & Sh9=CT), 1 [Sh8=BT & Sh1 =CT], (Sh10, attached to Sh9, remains unworked on this round and both should be held to the inside when making the next stitch.)

Round 7: HTS (2./2./2./2./^b2. [Bring Sh9 & Sh10 forward in front of the helix tatting in preparation for round $81/^{b}2$.)

3, b, 3, b, 3.)], fold the TOC just made to the outside of the Helix tatting (out of the way). HTS (2./2./2./2./2./2./^b2./^b2.)

Round 9-15: HTS (2./2./2./2./2./^b2./^b2.), Omitting TOC, Sh9 & Sh10. Keeping TOC folded to the outside of the Helix tatting (out of the way). Repeat round 9 with Sh1 through Sh8 six more times.

Round 16 [Medium TOC]: HTS ([1. (Sh1=BT; Sh9=CT), 1. (Sh1=BT & Sh2=CT), TOC (Sh10=BT & Sh9=CT): (3, b, 3, b, (fold the TOC to the outside of the Helix tatting)]/2./2./2./2./b2./b2.)

Round 17-23: Repeat round nine a total of seven times with Sh1 through Sh8.

Round 24 [Small TOC]: HTS ([1 (Sh1=BT & Sh9=CT), 1 (Sh1 =BT & Sh2=CT), TOC (Sh10=BT & Sh9=CT): (3, b, 3, b, 3, b, 3, b, 3,), (fold the TOC to the outside of the Helix tatting)]/2./2./2./2./2./b2./b2.)

Round 25-31: Repeat round nine a total of seven times with Sh1 through Sh8.

Round 32 [Small Trefoil]: HTS ([1 (Sh1=BT; Sh9=CT), 1 (Sh1=BT & Sh2=CT), TOR (Sh9, 3b aboh): [(2, b, 2, b, 2, b, 2).] three times, TOC (Sh10=BT & Sh9=CT): (3, b, 3, b, 3, b, 3, b, 3), (fold the TOC to the outside of the Helix tatting)]/2./2./2./2./2./b2./b2.)

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Round 33-39: Repeat round nine a total of seven times with Sh1 through Sh8.

Round 40 [Large Trefiol]: HTS ([1. (Sh1=BT; Sh9=CT), 1 (Sh2=CT; Sh1=BT), TOR (Sh9, 4b aboh): [(2b b 2b b 2b b 2b b 2).] three times, TOC (Sh9=CT, Sh10=BT): $(3, {}^{b}{}_{b} 3, {}^{b}{}_{b} 3, {}^{b}{}_{b} 3.)$, (fold the TOC to the outside of the Helix tatting)]/2./2./2./2./ b 2.)

Round 41-47: Repeat round nine a total of seven times with Sh1 through Sh8.

Round 48 [Small Trefoil]: Repeat round 32

Round 49-55: Repeat round nine a total of seven times with Sh1 through Sh8.

Round 56 [Small TOC]: Repeat round 24

Round 57-63: Repeat round nine a total of seven times with Sh1 through Sh8.

Round 64 [Medium TOC]: Repeat round 16

Round 65-71: Repeat round nine a total of seven times with Sh1 through Sh8.

Round 72 [Large TOC]: HTS (1. (Sh1=BT & Sh9=CT), 1. (Sh1=BT & Sh2=CT), TOC (Sh10 = BT * Sh9 = CT): $(3, {}^{b}{}_{b} 3, {}^$

Round 73-79: Repeat round nine a total of seven times with

Sh1 through Sh8.

Round 80: HTS ([1. (Sh1=BT; Sh9=CT), 1.

(Sh1=BT & Sh2=CT), (Sh9 & © 2019-2023 D Richard Embrey All Rights Reserved.

Sh10 may be cut from the work leaving a six-inch tail on each thread)] $\frac{1}{2}$. $\frac{1}{2}$. $\frac{1}{2}$. $\frac{1}{2}$.

Beadles Rounds 81-83: HTS (2./2./2./2./2./2.)

Closing Rounds: 84-86: HTS (1./1./1./1./1./1./1)

Finishing:

Cut shuttles from work, leaving six-inch thread tails. Close end of bracelet while concealing threads; hide the thread tails into a couple of stitch caps and then into the core of the Helix Tatting. Wet block and pin trefoils in an open and pleasing position. Attach bracelet findings of your choice to the beginning and the end of bracelet. Enjoy your Beaded Helix Embellished Bracelet!

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Beaded Helix Embellished Bracelet Custom Lengths Understanding the beaded helix embellished bracelet sequence. The bracelet is composed of a series of chain segments and central trefoil and chain segments and more chain segments as follows:

Beginning rounds, (1 to 3); Beadles rounds, (4 & 5); Incorporating the extra thread for the chains round, (6); Prep row (7); Large TOC with HTS round, (8); 7 HTS rounds, (9 to 15); Medium TOC with HTS round, (16); 7 HTS rounds, (17 to 23); Small TOC with HTS round, (24); 7 HTS rounds, (25 to 31); Small Trefoil & Small TOC with HTS round, (32); 7 HTS rounds, (33 to 39); Large Trefoil & Small TOC with HTS round, (40); 7 HTS rounds, (41 to 47); Small Trefoil & Small TOC with HTS round, (48); 7 HTS rounds, (49 to 55); Small TOC with HTS round, (56); 7 HTS rounds, (57 to 63); Medium TOC with HTS round, (64); 7 HTS rounds, (65 to 71); Large TOC with HTS round, (72); 7 HTS rounds, (73 to 79); Attaching the last TOC with HTS round, (80); Beadles rounds, (81 to 83); Closing rounds, (84 to 86).

To alter the length you will add or subtract rows or segments. Each chain segment should remain a total of 8 rounds if a chain segment is not equal to 8 rounds the chains will twist at that point instead of forming a straight line. If all chain segments are altered, by adding or subtracting a round from each segment, the chain will twist around the bracelet rather than remain straight.

Shortening the length of the beaded helix embellished bracelet. To make the bracelet shorter, skip rounds 7 to 15 and 72-79. Once the second (your first) and third (your second) chains have been completed measure the length of your first chain segment. This will give you an indication of whether or not you will need to skip more or less than the first and last segments. If you have the bracelet findings you will use, temporarily attach the appropriate piece(s) to the beginning. This will improve your estimation on length remaining to be tatted.

If after completing the central trefoil you have not achieved your desired halfway mark then add beaded round seven after round 80, add as many as are necessary (if you think you are going to need eight then do not omit rounds 72 to 79).

If after completing the center trefoil you are exceeded your desired halfway length then plan to omit a beadles round or two at the end and or a closing round or two at the end, (omit first a beadles round, then a closing round, continue alternating the removal of rounds but tat at least one of each type.

Increasing the length of the beaded helix embellished bracelet. To make the bracelet longer, first tat rounds 1 to 23, temporarily attach bracelet findings, measure the first helix chain section. Determine how many chain segments you will need to reach your desired length by using this formula: (Desired length minus length of findings) divided by the length of the first chain segment.

If after completing the central trefoil you have not achieved your desired halfway mark determine how many rounds you must add, if you must add eight rounds then tat an extra set of rounds 17 to 24.

If you must add nine or more rounds then add an extra set of rounds 17 to 24 and then add beaded round seven after round 80, add as many as are necessary up to 7 (if you are going to need 8 add another center helix chain segment after the third trefoil by tatting rounds 56 to 63.

If after completing the central trefoil you have exceeded the desired halfway length determine how many rounds you must omit. If you must omit 8 rounds then omit rounds 56 to 63. If you must omit 9 to 12 rounds then omit rounds 56 to 63 and a beadles round or two at the end and or a closing round or two at the end, (omit first a beadles round, then a closing round, continue alternating the removal of rounds but tat at least one of each type.