

Paracord Bullwhip

by [ch5](#) on March 30, 2010

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Intro: Paracord Bullwhip

Hello everybody!

I've been enjoying this site for long and have finally found enough time to write a first Instructable by myself.

I'll will share with you how to make a real paracord bullwhip.

It should not be that hard for those of you who know their way through ropes, knots and braiding.

I wouldn't recommend this as a beginner project though.

It involves careful and regular braiding of up to 12 strands a bit over 12 feet long, which can be a bit messy or frustrating if you're not familiar with manipulating such lengths of cord.

You will also need to know (or be willing to learn) some 'advanced' knots to make it look nice, and I won't cover that lengthy point in this Instructable since there is already a lot of resources on that topic on the Net.

I however do plan on doing a few other Instructables on that topic if people are interested in it.

We will be making a 2.50m (~8.2ft) whip, from handle tip to fall, not including the cracker.

Take your time with this one, you'll get what you give.

It took me maybe a week or so worth of evenings to complete it.

The result was well worth it, this thing cracks loudly and easily as expected and it ended up being a very rewarding project.

I'd like to thank "Bullwhipcracker" for his nice info about whip making that served as an inspiration for this project and saved me some headaches about figuring out the correct lengths for the different steps.

I was unable to find a homepage or anything that links directly to his work to give him proper credit though.

Now, let's get to the fun stuff :)

Update:

Here's a short vid showing that it's indeed the real deal.



CLICK TO PLAY VIDEO 





Step 1: You will need...

First things first, for this project you will need :

- Paracord (lots of it) I started with 60m (196 ft.) and had maybe 15m left after I finished.
But better be safe than sorry on this point :)
- 2m (6.5ft) of some light chain, the kind you find on lamps or that holds your sink plug.
- Duct tape and/or electrical tape
- 1 "Big" Nail (Big meaning that it would do the trick as a handle)
- Some medium width string to tie the cracker
- Something that cuts (my trusted Surge in that case)
- Something that makes fire to neatly melt the ends of your butchered paracord.
A Zippo is a nice choice, it will get you a nice flame and stand on the desk by itself while you use both hands to melt/cut the paracord over the flame.
- Measuring tape
- Patience

Optionally you might find useful to have:

- Some kind of marlinspike needle for dressing the fancy knots.
- A file or some kind of grinder or Dremel tool to cut grooves in the "handle"
- A spot to tie the whip to while you're plaiting (holding it between my knees worked well in my case) you could also use a lightly tightened vice.

Also this project works with mainly gutted paracord so you will end up with vast amounts of unused inner strands.

Let me know if you think making a hammock, net or bag out of them would be an interesting Instructable :)

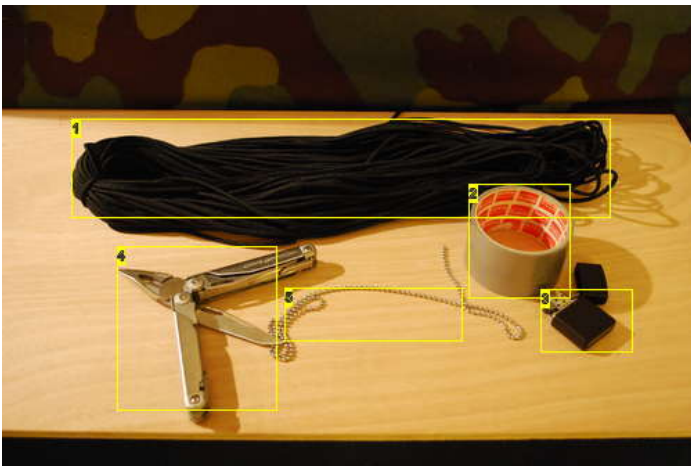


Image Notes

1. Hmmm, paracord :)
2. Duct tape. No project without this one eh ? :)
3. Some firepower. Zippos can stand up straight by themselves.
4. Something that cuts, snips, holds, perforates...
5. Some lamp chain, actually more than pictured here.

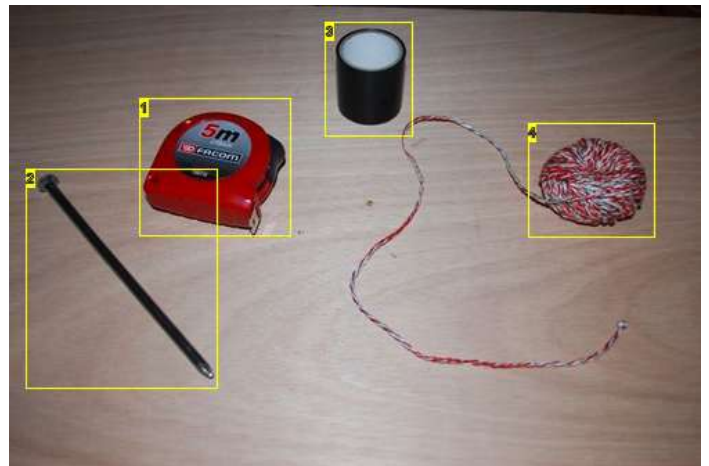


Image Notes

1. Measuring tape to cut things to length
2. A big nail as a handle
3. Strong electrical tape to make things stiff
4. Some medium width string for the cracker



Image Notes

1. A homemade marlin spike. Made from the same kind of nail as the handle and after a bit of grinding.

Step 2: Some usefull knotting ressources

As I said in the introduction, this project will also require you to know and master a few knots, both for practical and decorative purposes.

I'll assume you either do know them or will be able to learn them so I will not be covering them here . There are a lot of great ressources about that on the Internet. (I also plan on doing separate instructables on these various knots soon)

- The half hitch and the overhand knot (you DO know them ,trust me :))
- Basic rope whipping (to hold strands together, the picture below should be enough)
- The constrictor knot, serves the same purpose as the above.
(en.wikipedia.org/wiki/Constrictor_knot)
- The star knot (makes a wonderfull handle knob)
Best explained here : knotical-arts.com/star1.html
- The matthew walker knot (holds well as a final knot around the handle)
(Sorry, i could'nt find any really clear tutorial to share on this one)
- The turk's head if you want to mark the end of the handle.
- Any kind of multi-strand knot you know and would like to use as a decoration on the handle (crown knot wrappings, half hitch coverings, various round braids..)

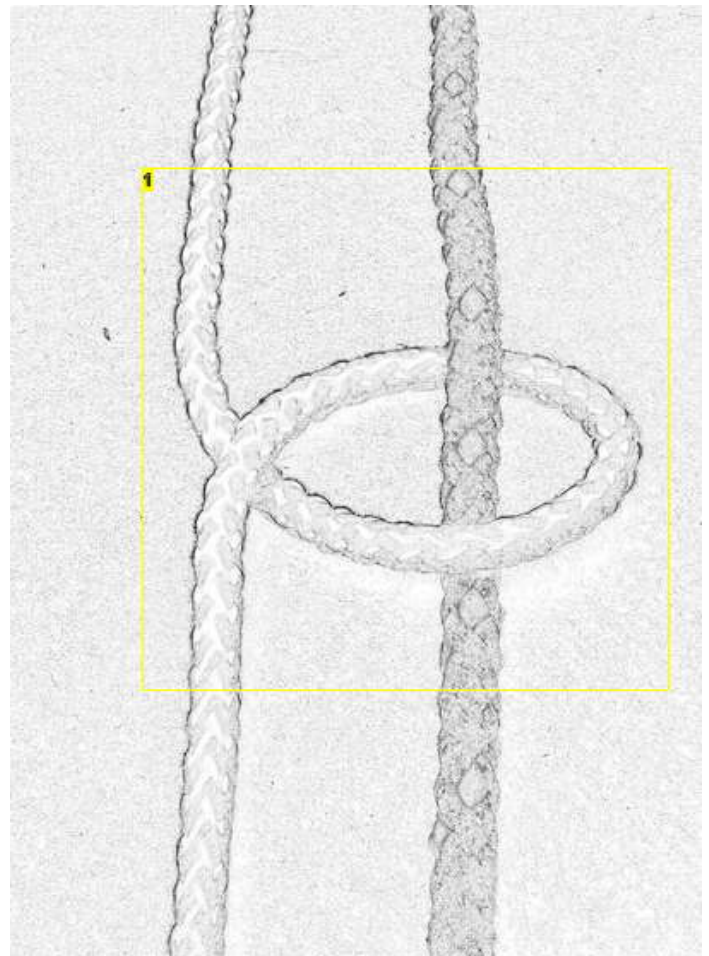
Only the first three of the list are really mandatory if all you need is a working whip.
But it would be sad not to wrap things up in your favorite fancy knots.

See the last picture to see what goes where.



Image Notes

<http://www.instructables.com/id/Paracord-Bullwhip/>



1. The overhand knot.

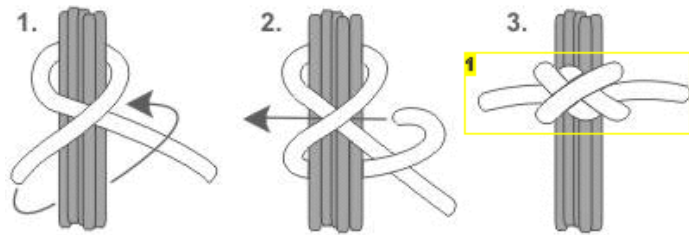


Image Notes

1. The constrictor knot in all it's glory. Probably the best one out there to keep round things together.

Image Notes

1. Half hitches will help you while threading chain through paracord;

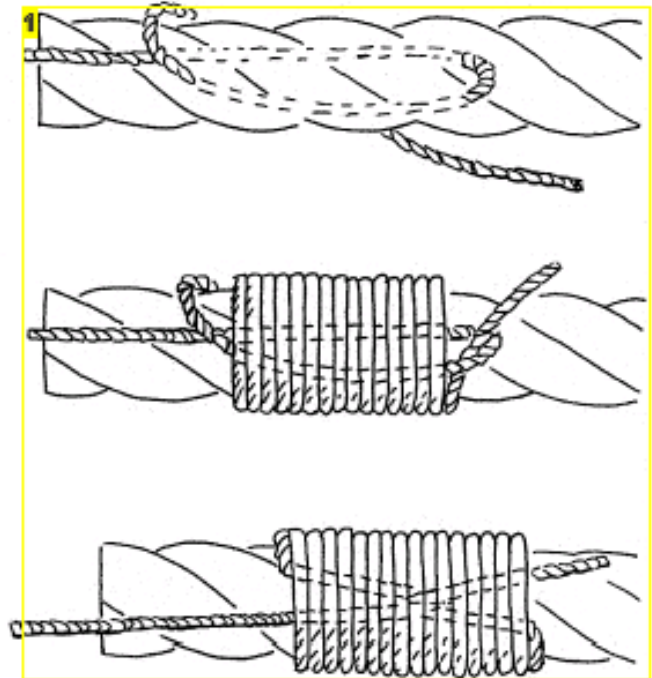


Image Notes

1. Basic rope whipping

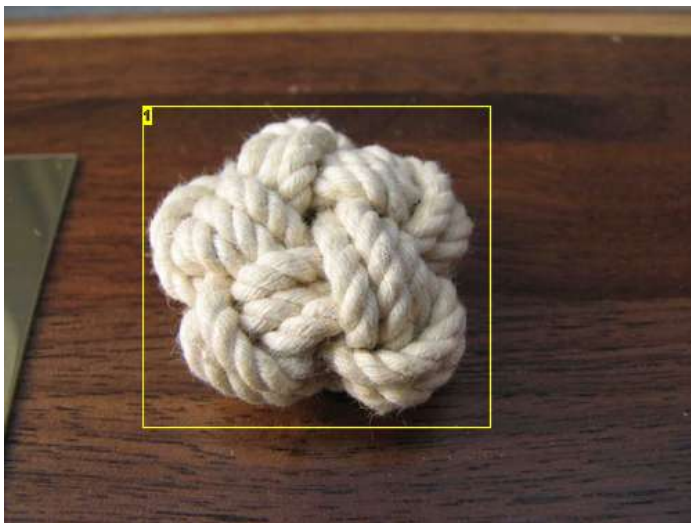


Image Notes

1. The star knot, optionnal but wonderfull :)

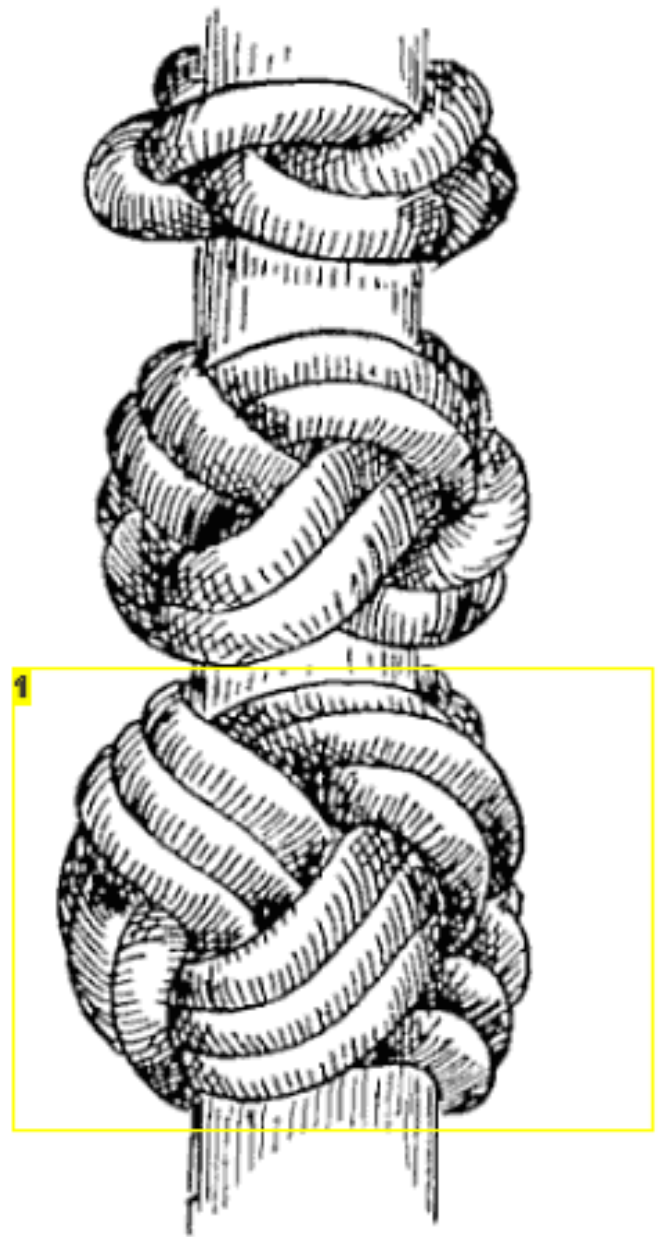
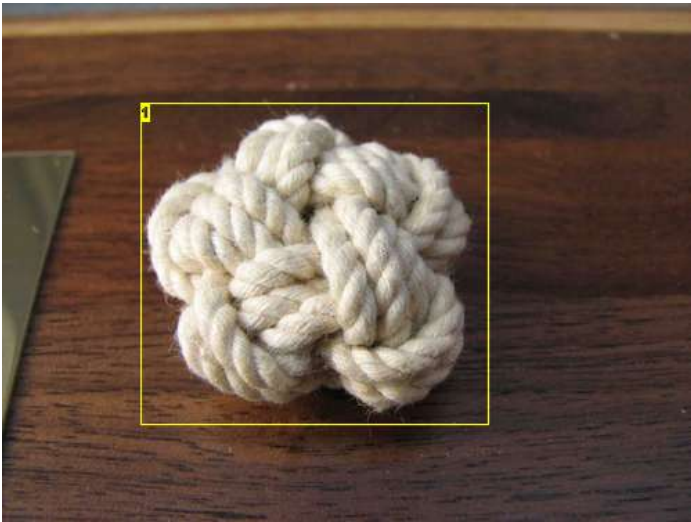
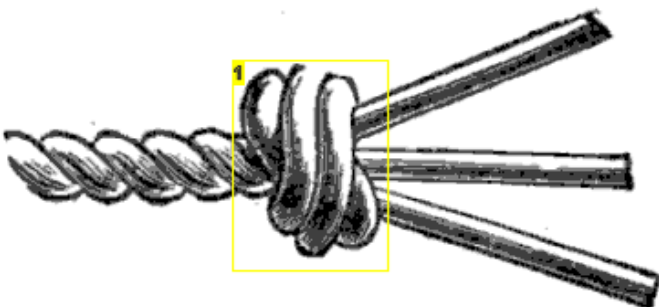


FIG. 136.—Turks' heads.

Image Notes

1. The turk's head. Also optionnal and for decorative purposes.



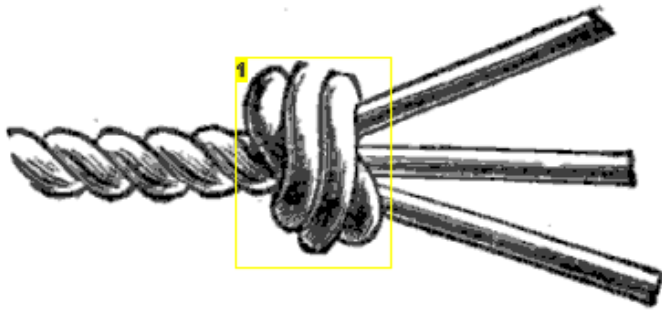


Image Notes

1. The matthew walker , also optionnal but neat.

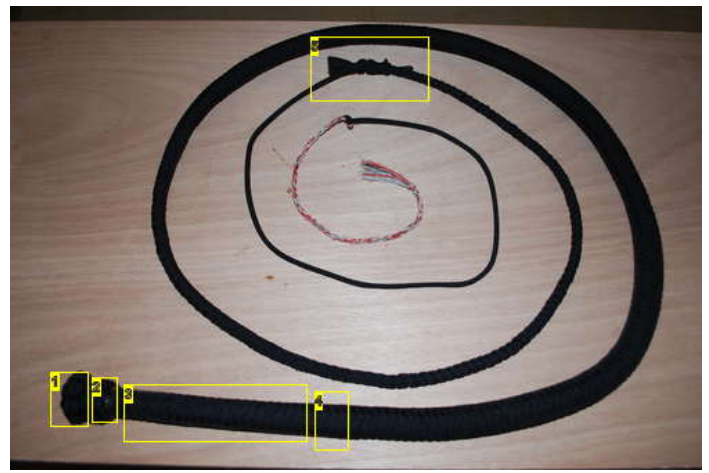


Image Notes

1. The star knot
2. A Matthew walker's holds nicely as the last knot.
3. You could use your favorite multi strand wrapping here. I didn't, my handle is already thick enough.
4. You could also mark the handle's end with a turks head or a multi strand lanyard knot.
5. Basically half hitches

Step 3: Cutting things to length

Ok, so here i'll sum up all of the various lengths you will need.
I'll remind them in the revelant steps so you don't need to take notes for now.

Our whip will be made of 3 layers :

The guts, that will provide some weight and springiness, and two layers of plaiting around it.

You will need:

For the guts :

- x1 2m strand (6.5ft)
- x1 1m strand (3.30 ft)
- x1 80cm strand (2.6ft)
- x1 50 cm strand (1.6 ft)

along with the corresponding 3 lengths of lamp chain for the shorter ones :

- 90cm (2.95ft)
- 60 cm (1.95ft)
- 30 cm (1ft)

The first layer will be a 8 strand round plait (4 strands folded in half will make it neater)

- 2x 5m -> 4x 2,5 (16.4ft)
- 1X 3m -> 2x 1,5 (9.90 ft)
- 1x 4,30m -> 2x 2,15 (14.10 ft)

The outer layer will be a 12 strand plait (again, 6 strands folded in half)

- 2x 7,30m (24 ft)
- 1x 5,50m (18 ft)
- 1x 5m (16.4ft)
- 1x 4,30m (14.10ft)
- 1x 3m (9.90 ft)

Please note that this is not an exact science.

These are the lengths I used and that worked for me.

I had some leftover after this, but it is still better than lacking some length after hours of plaiting right ? :)

The exact amount of cord you'll end up using depends on many factors (how tight you plait, the thickness of the core...)

You don't have to cut all that mess in advance, especially since you're going to gut most of these strands.

I also suggest to think in advance of a way of storing the leftover inner strands for later use if you don't want to end up with 7times more of an inner strand spaghetti meal than what you began with :)



Step 4: Preparing the core

For this first step, you will need your first 4 strands of paracord and the 3 corresponding lengths of lamp chain:

Paracord:

- x1 2m strand (6.55 ft)
- x1 1m strand (3.30 ft)
- x1 80cm strand (2.60ft)
- x1 50 cm strand (1.60ft)

Chain:

- 90cm (3 ft)
- 60 cm (2 ft)
- 30 cm (1 ft)

You will remove the inner strands from the 3 shortest pieces... but wait !

You will then have to put the corresponding lengths of chain into the corresponding strands and this can be a real pain without the proper technique.

I've tried a few:

Making a wire needle to pull the chain through the strand, hand threading cm by cm, threading a whole wire through it first and pulling it back with the chain taped to it...
None of them worked...

On the other hand, this last technique did wonders :

Carefully remove 6 of the 7 inner strands taking great care not to let the last one slip along with it's friends (you can tie it around a finger, a pen or anything that will stay out of the paracord sheath).

Then tie one end of the last inner strand 1-3 balls away from the end of the lamp chain using the smallest knot possible.(preceding it with half hitches between every ball might help to improve it's lengthwise pull tolerance as knots tied in those slick inner strands tend to be a bit slippery)

Then just pull the inner strand out of the cord to get the chain in place and cut the string off.

If by mistake your last inner strand slips out of the sheath early or alone, you might try to feed it back through the cord by tying it to a long piece of stiff wire (longer than the cord).

Or you might just cut another piece of paracord and start over.

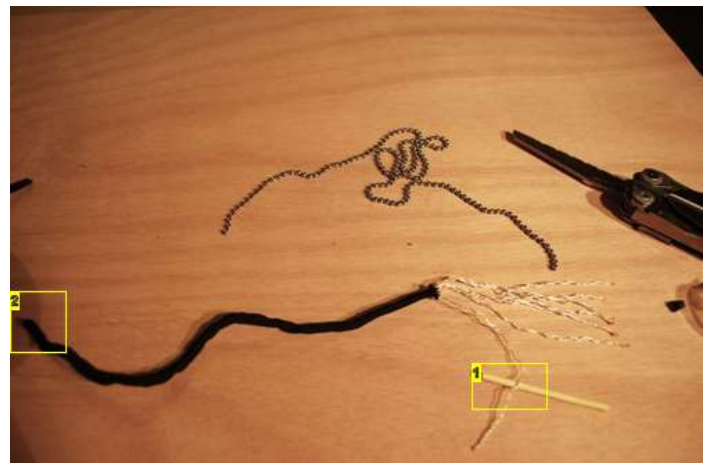


Image Notes

1. Tie one of the strands around something so it doesn't get out of the sheath

along with the other strands.
2. This end is still melted for now

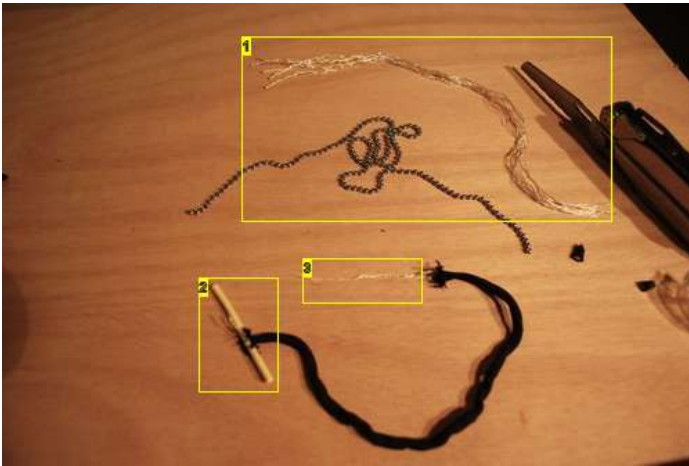


Image Notes

1. 6 out of 7 strands removed
2. It didn't slip through :)
3. We will now be working with this end

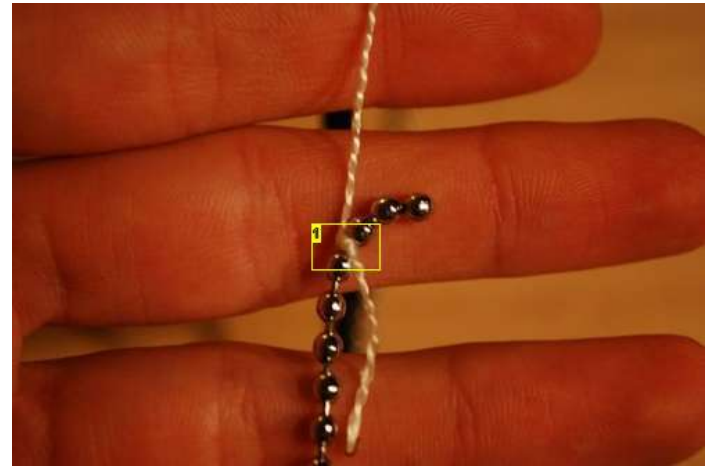


Image Notes

1. A solid knot 2-3 balls from the top

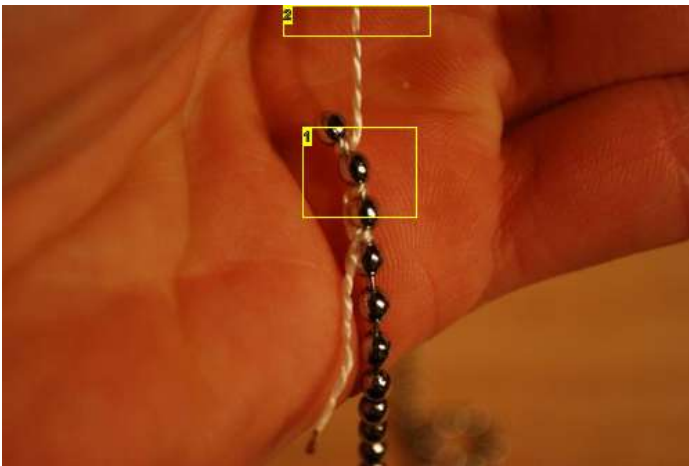


Image Notes

1. Half hitches on every segment
2. Then pull on the inner strand out and have the chain take it's place inside the cord

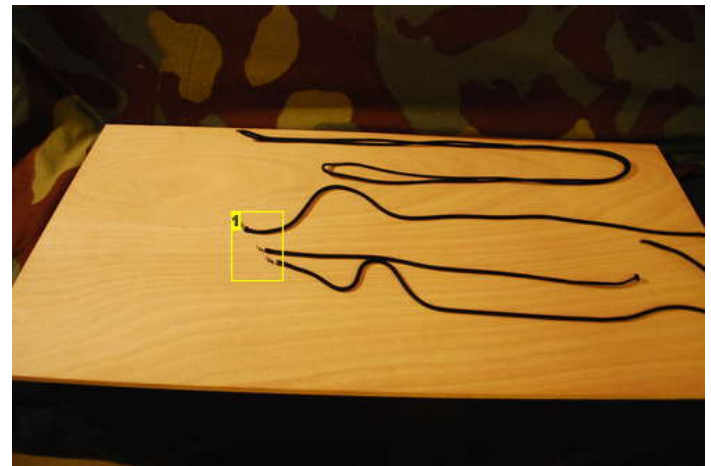


Image Notes

1. The chain threaded through the gutted paracord.

Step 5: Beginning the core

We will now bind those first strands to the handle.

Using your grinder/file/dremel/teeth (no, don't !), put a small groove near the tip of the nail.
That way you'll be able to tie the strands efficiently here and only have a minimal thickness change.

Then, tie the 4 strands evenly spread around the nail.

Fasten them where the groove is using a constrictor knot (or two) and using one of the inner strands you just took out of the cords.
Do this as tight as you can get it, you don't want your whip to break there.

Now you can wrap the constrictor knots with a basic whipping to ensure it won't slip.

Being paranoid, I also whipped mine once above and twice below the main whipping to be sure it wouldn't come apart.

You could also add a bit of duct tape there being careful not to make it bulky.
I didn't since the whippings were going to hold well anyway.

Trim the cords close to the whippings (not too close so as not to let them spill open)



Image Notes
1. The groove

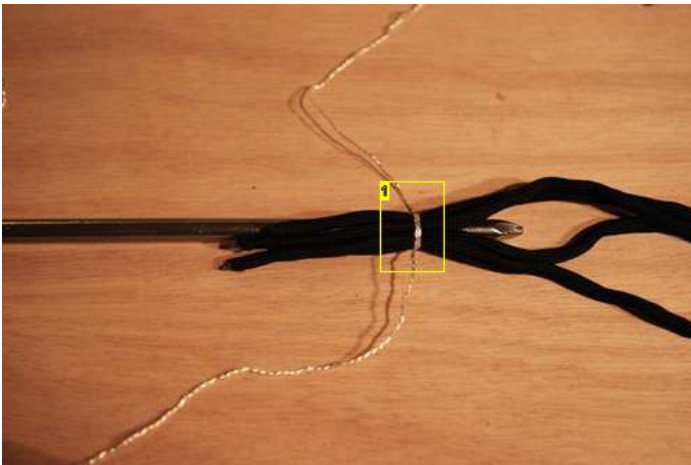
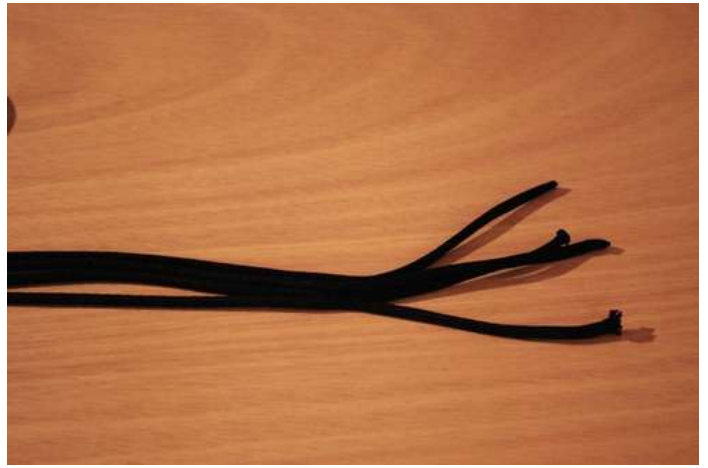


Image Notes
1. A constrictor knot will hold it well. Don't trim the ends to short until you've added the whipping around it.

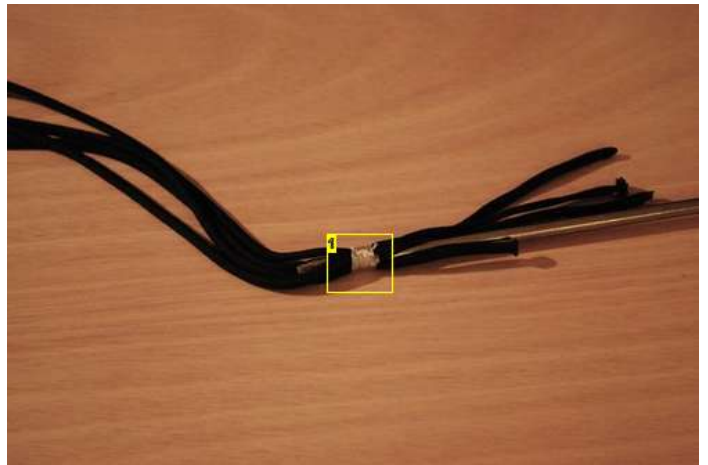


Image Notes
1. Once you've whipped the cords using one of the inner strings you just pulled out, trim the inner constrictor's knot ends short

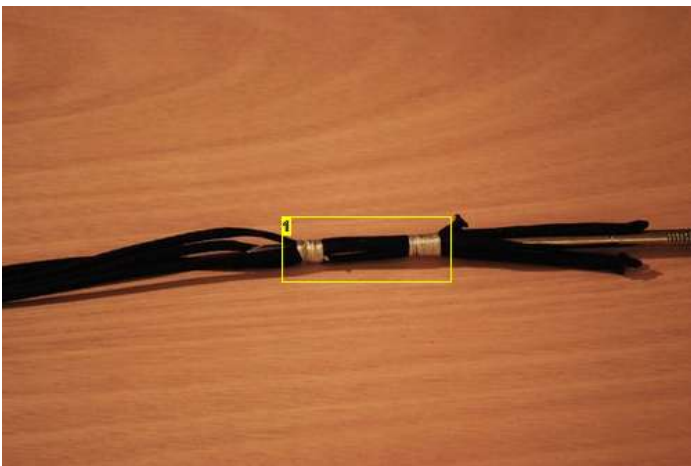


Image Notes
1. Then you can do it twice...

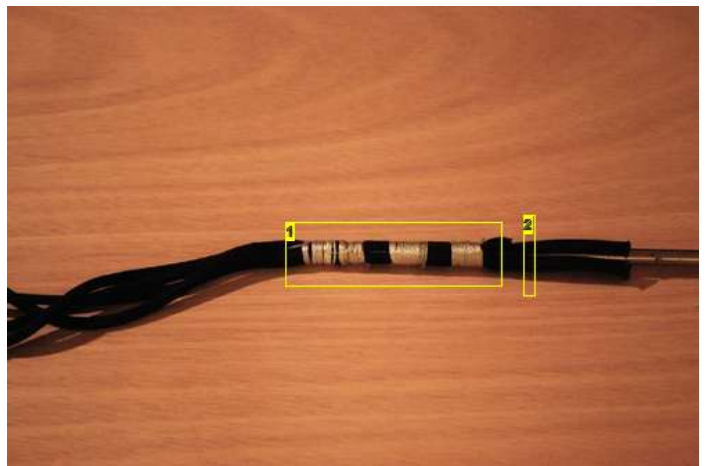


Image Notes
1. ...then a few more times
2. And finally trim those short around there.

Step 6: Properly twisting strands

To make sure your whip will have consistent behaviour when bent in all directions, you should then twist the strands together.

If you've ever made your own twisted rope, you know how to do this properly.

If you haven't, here is a short video illustrating the process.

Basically, you twist every strand a bit in one direction and then lay it against the others wrapping it in the **opposite** direction. The same techniques applies for 4,3, or 2 strand sections.

Twisting the strands:



Twisting multiple strands together



Step 7: Wrapping the guts

When you're done neatly twisting the strands, you are ready to wrap the guts in Duct Tape.

Lay the tape 45° across the strands, and wrap it up to the end of the 3rd cord in a single and even layer.

Take great care to keep the inner strands untangled to get an even surface.

Try to keep them in a round section as much as possible.

I used some thin duct tape that i had laying around at the momment and the result felt pretty limp to me at this point.

So i decided to add a 2nd layer of some thicker more rubbery electrical tape.`

You may or may not want to add this second layer depending on what you have on hand and how your whip behaves at this point.

Try to make it neater than in the first picture, I took it hastily on a new nail after the project was finished to illustrate this step.

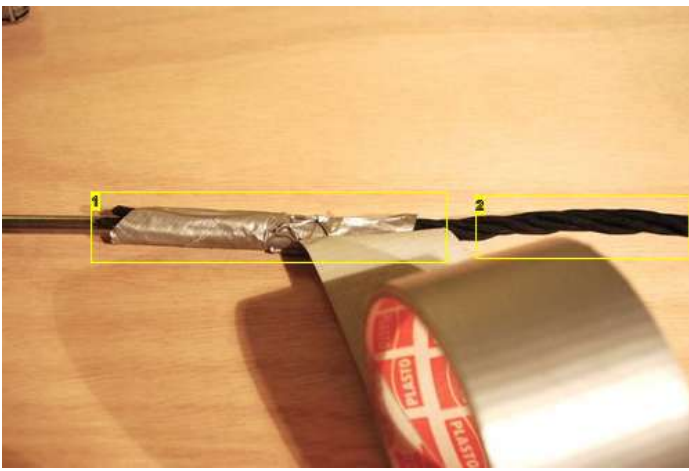


Image Notes

1. Make it neater...
2. The strands twisted together. This should also be a bit more even.

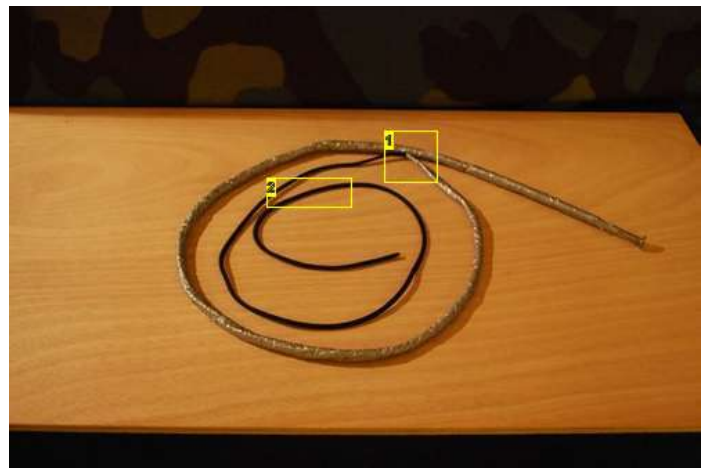


Image Notes

1. Wrap up to the end of the 3rd cord
2. Don't wrap the mono strand part

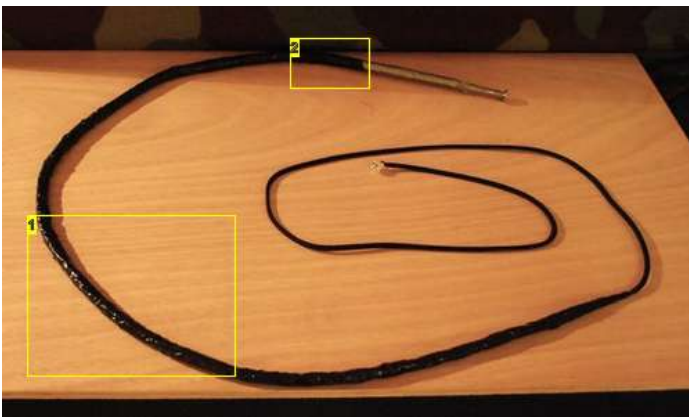


Image Notes

1. The second layer.
2. It's OK if the transition from the handle still feels a bit weak there when you bend it. We will address this problem in step 13.

Step 8: Beginning the first layer

You are now ready to begin plaiting the first layer.

Get the appropriate lengths of paracord to make this 8 strand round plait:

- 2x 5m -> 4x 2,5 (16.4ft)
- 1X 3m -> 2x 1,5 (9.90 ft)
- 1x 4,30m -> 2x 2,15 (14.10 ft)

Take the inner strands out of them, save for later use.

Don't forget to melt the ends before going on.

From now your gutted paracord will tend to lay flat.

You can run it once or twice around a soft round spot to make it even if you want. (a metal bar or pipe of some kind)

You could also just run it through your fingers as I did, but do this carefully so as not to burn your fingers, you'll need them later ;)

Next, fold the 4 pieces in half and work with the middle of the cords.

How you group them doesn't matter for the next step.

From there, follow the pictures to lay them out properly :

- Using a first pair (again, which strands doesn't matter), cross them in front of the handle as pictured.
- Then, thread the second pair through the loop and lay it as in the third picture.

Make sure all the lengths are even on both sides while you still can :)

(For the sake of simplicity i'm not showing the actual whip here but a "model" of it using 2 different colors.

Also note that your strands should be gutted and flat at this point)

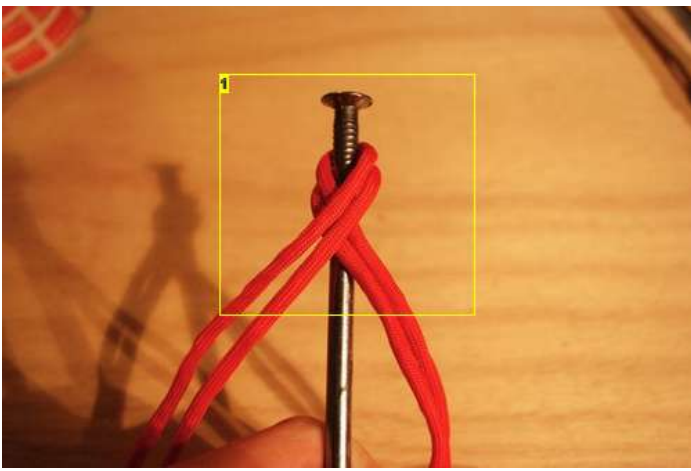


Image Notes

1. First loop a pair as shown...

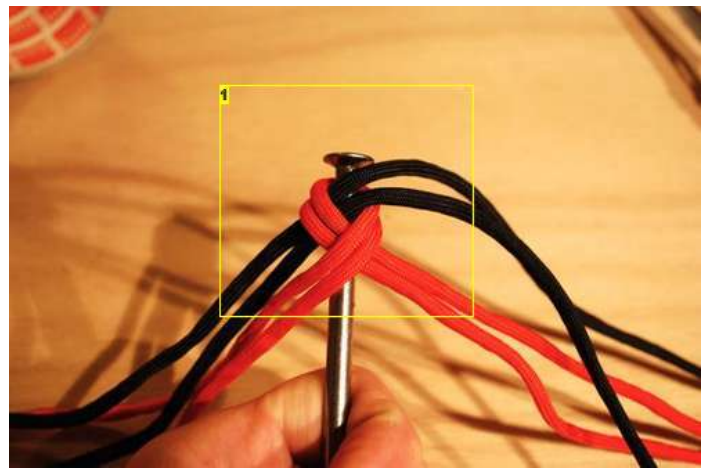


Image Notes

1. Then thread the second pair through the loop...

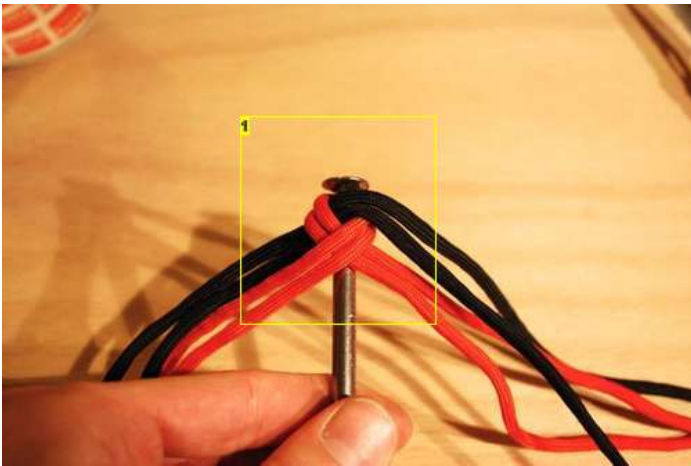


Image Notes

1. You end up with 2 pairs on both sides.

Step 9: Plaiting the 8 strand layer

Now the actual plaiting.

Don't let the amount of strands frighten you, the actual thing is actually quite easy to remember.
(Although mastering the technique might take some mishaps first ;)

From now on, remember to keep your strands neat, flat and don't let them overlap.

You will have 4 strands laying neatly arranged on each side.

Begin with the right top one, this will be the "working strand" for that pass.

- Take the working strand
- Pass it around the back so it gets to the **left** side
- On this side you have your 4 left strands.
- Pull the working strand **under** the first two, and **over** the last two
- Lay it on the right side
- The working strand ends lined up with the remaining 3 strands of the right side.
- It began at the top of the right side, and ended up at the bottom of it.

You've just completed one "pass"

Now , do the same with the top strand from the left side, only in reverse :

- Take the working strand
- Pass it around the back so it gets to the **right** side
- On this side you have your 4 right strands.
- Pull the working strand **under** the first two, and **over** the last two (no inversion in this step)
- Lay it on the left side
- The working strand ends lined up with the remaining 3 strands of the left side.
- It began at the top of the left side, and ended up at the bottom of it.

At this point you probably got the trick, that's all there is to it:

- You take one sides' top strand,
- make it travel around the back ,

- under 2-over2 on the opposite side
- lay it at the bottom of it's beginning side.
- repeat with the top strand of the opposite side, on and on...

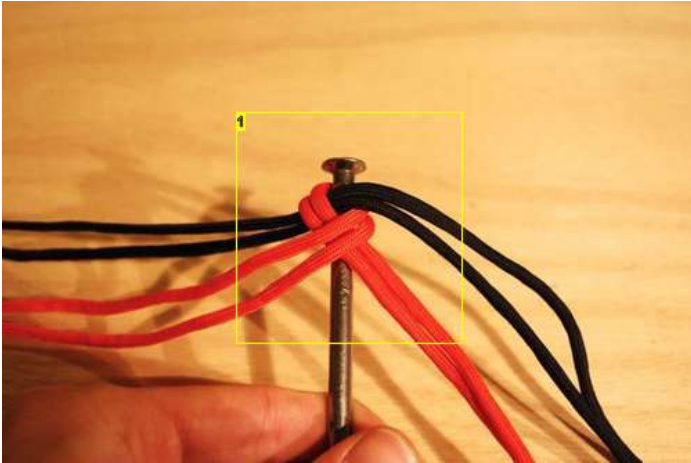


Image Notes

1. Begin with 2 pairs on each side

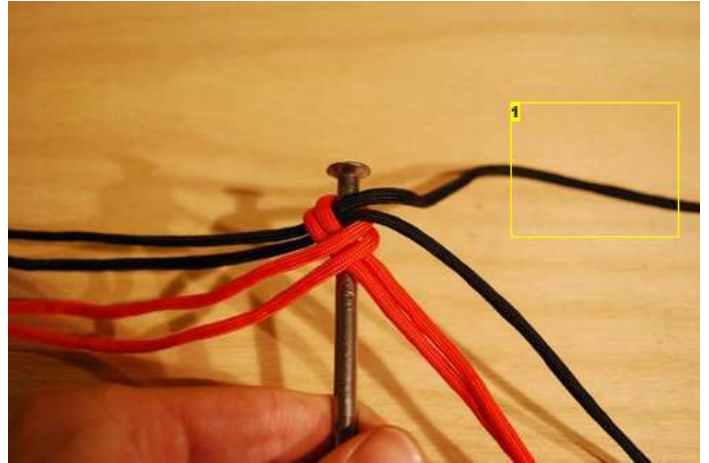


Image Notes

1. Top right will be our first working strand

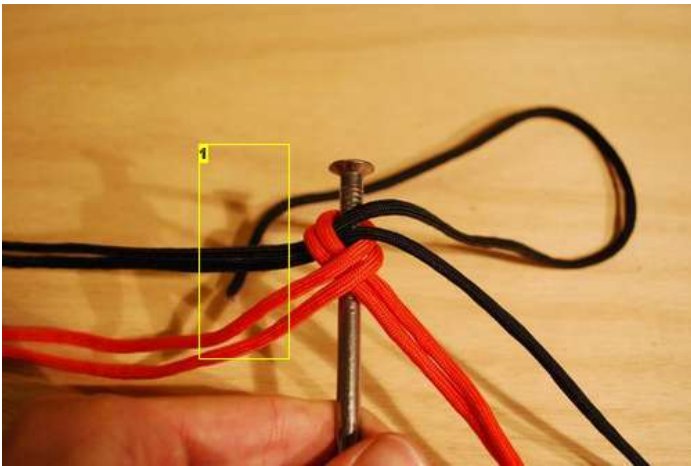


Image Notes

1. It goes behind the back...

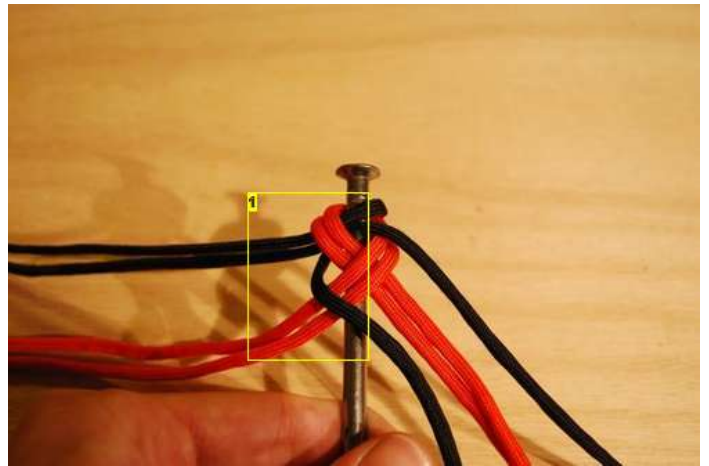


Image Notes

1. Then under 2 , over 2...

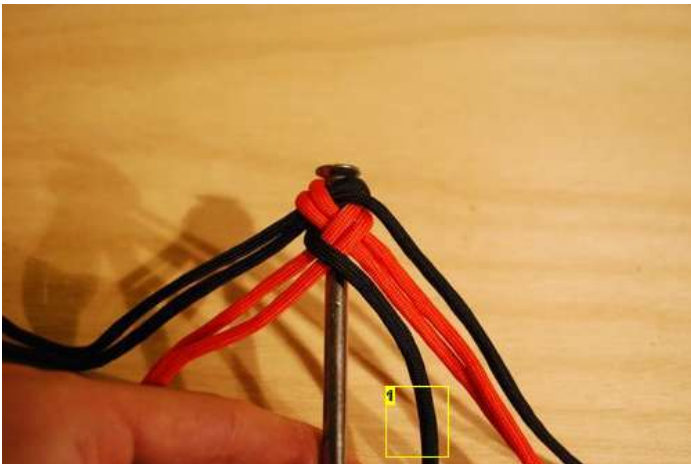


Image Notes

1. It ends up on the initial side, but on the bottom of the plait. This is the end of the first pass.

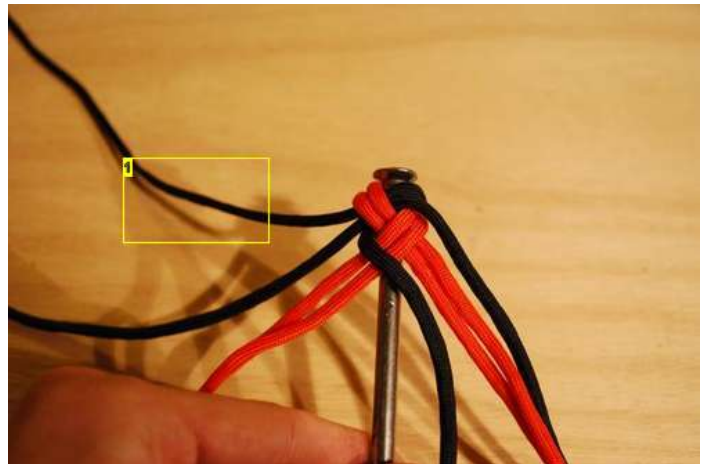


Image Notes

1. Then we repeat on the other side with the top left strand

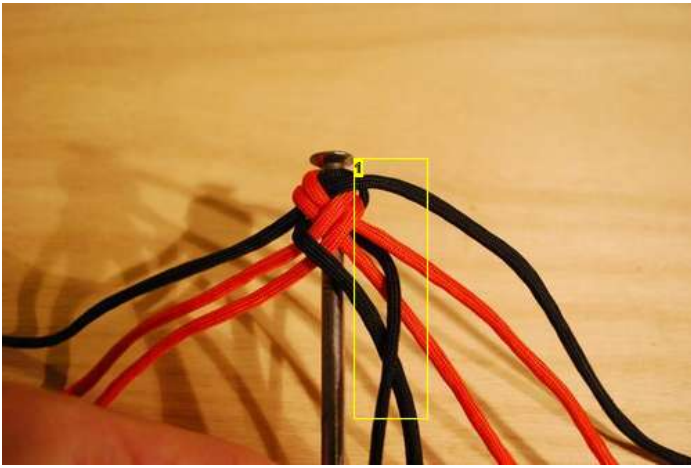


Image Notes

1. Behind, then under 2 over 2..

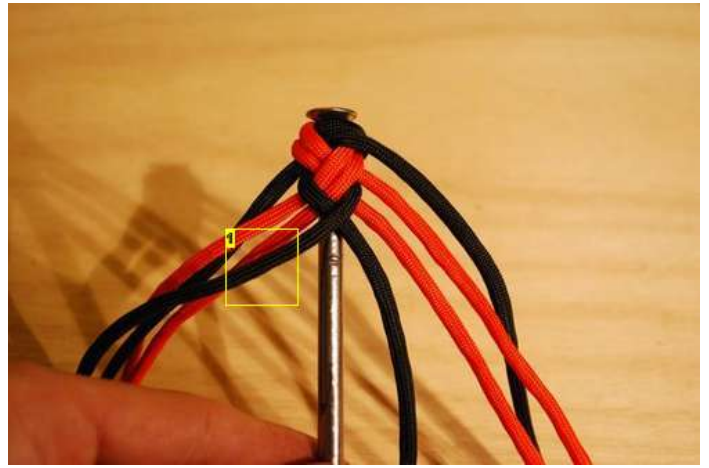


Image Notes

1. ends up on the bottom left. This is the end of the second pass.

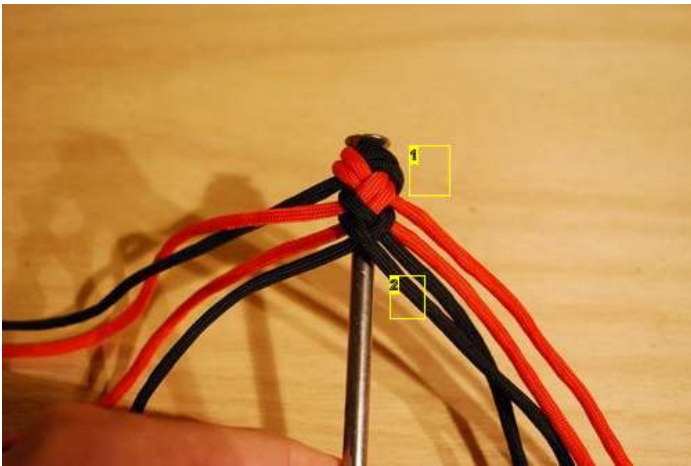


Image Notes

1. Then once again with the top right strand...
2. To here... This was the 1-picture 3rd pass :)

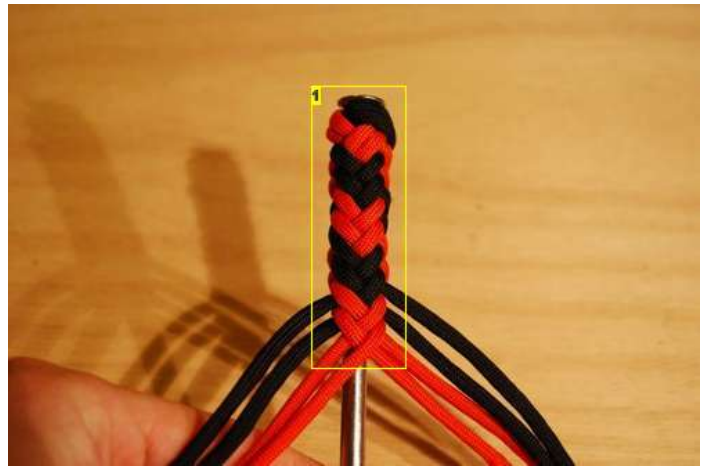


Image Notes

1. Go on like this until you reach the spot where the whip gets thinner.

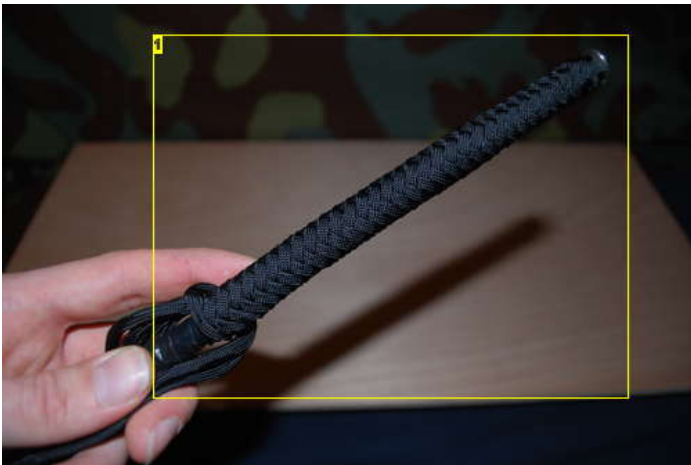


Image Notes

1. Here's how it looks on the actual whip with the flat strands.

Step 10: Keeping things neat

You want your plait to be as even and smooth as possible.
The tighter the better also.

It would be very hard to plait it tight right as you do it.

Instead, I suggest that you first plait 4 "passes" (2 right, 2 left), then hold on tight on both sides and tighten the last lines one by one , beginning with the top ones and alternating sides.

(top right, top left, 2nd top right, 2nd top left bottom right bottom left)

Follow the numbers on the first picture if you don't get it.

The upper strands should hold tight if you don't release your pull on both sides too much.

The 2-4 bottom ones may not stay very tight but that's ok: after the 4 next "passes" they'll become the top ones and get tightened as desired.

Continue plaiting and tightening regularly up to the spot where the shortest gut-strand ends.

When you reach it , go just a bit past it (by a few passes) and then you'll proceed to "drop" a first couple of strands to accommodate the thickness change: see next step.

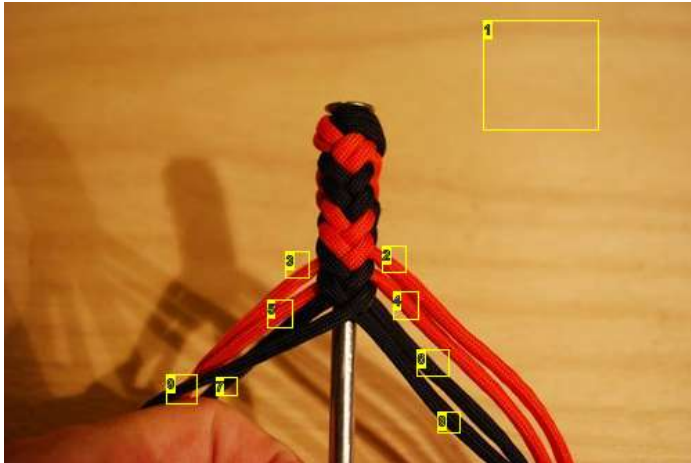


Image Notes

1. Every now and then begin tightening..

2. 1
3. 2
4. 3
5. 4
6. 5
7. 6
8. 7
9. 8

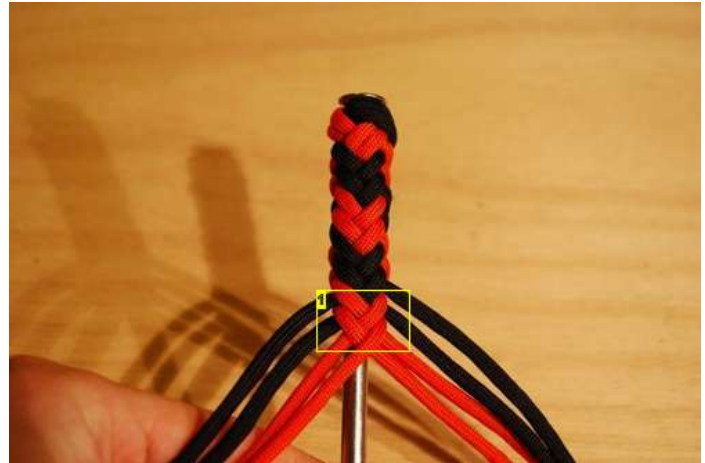


Image Notes

1. Then we plait 4 passes, and tighten again...

Step 11: Dropping strands

When you reach one of the points where the whip gets thinner, you'll need to cleanly "drop" two of your working strands so the number of them remains adequate to the thickness.

This step is an easy one as well and should produce a seamless transition from 8 to 6 strand-plait.

As you reach the thinning spot, two of your strands will be close to running out as you'll probably have only a few inches left on them(10-15 cm or so (0.5 ft)).

These will be the strands you will drop (the shortest ones to make things simple).

The actual drop:

- As you plait, each strand becomes the active one for each pass when it reaches the top of it's respective side.
- The drop will occur just before the short strands reach the top position. As you're about to work with the opposite side's top strand.
- Simply let the to be dropped strand fall under the plane in which all strands of the corresponding side are aligned.
- Then, push the 2 bottom strands of the same side up, close to the top strand
- You end up grasping 3 strands :the top one+ the 2 bottom ones.
- Now work with the opposite side's top strand as you would if the drop did not occur.
- The formula changes now : from "under 2, over 2", it becomes "under 2, over 1"

Make sur you "trap" the dropped strand against the core with the working one.

Now the to-be-dropped strand on the other side should have reached the next-to-top position.

(if it ends up on top right now, this means you began your drop one pass to late and should have begun dropping on the other side).

Simply repeat the manoeuver on this side :

- let the shortest strand fall and lay it against the core
- put the remaining bottom strands up where the dropped one used to be
- work as you would with the opposite's side top strand.

Remember, from now on, you're plaiting a 6 strands plait.

The formula is under 2, over 1.

Do this a couple of inches or so (5 cm , 0.15ft), being sure you trap both dropped strands against the core with each pass, then cut one of the strands. Go on for another couple inches and cut the 2nd one. Both strands will remain hidden under the plait.

Once again, the pictures for this step are an illustration and not the actual whip. The drop does not occur on the handle, but on the guts , at the spot where the whip becomes thinner.

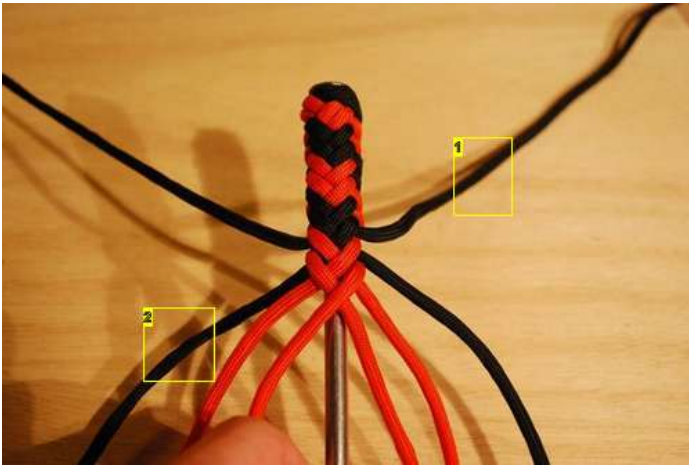


Image Notes

1. This will be the next active strand. We WON'T drop this one..
2. We will drop this strand

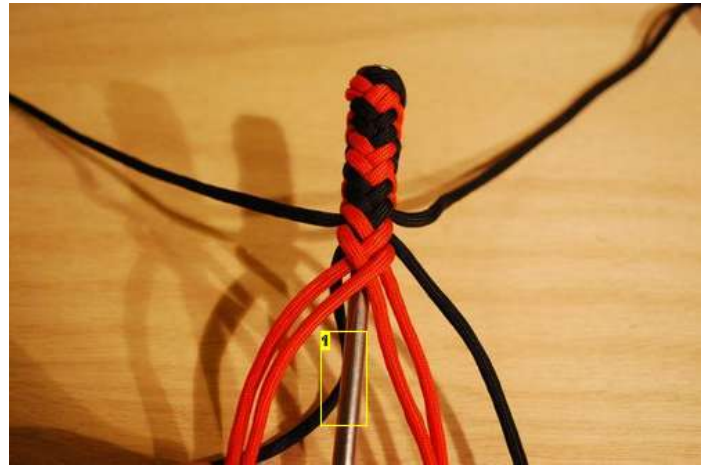


Image Notes

1. Just let it fall against the core

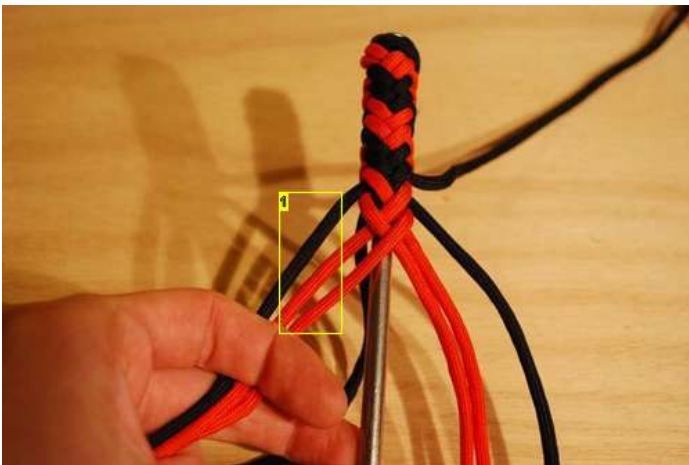


Image Notes

1. ...and grab the 3 remaining strands as if nothing had happened.

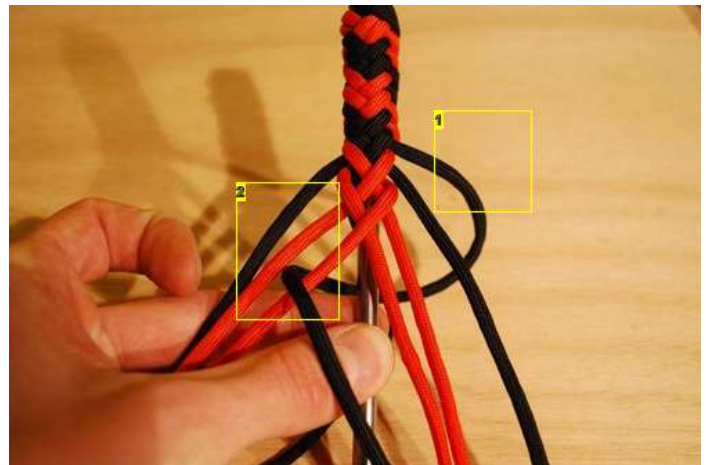


Image Notes

1. Then work with the active strand using the new formula...
2. ...under 2 , over 1

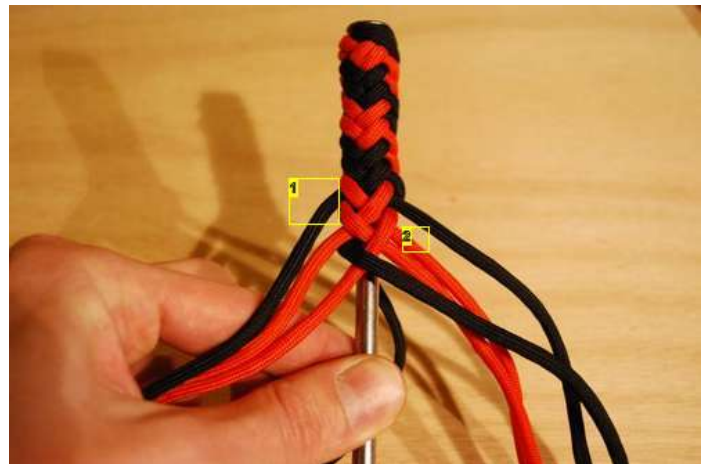
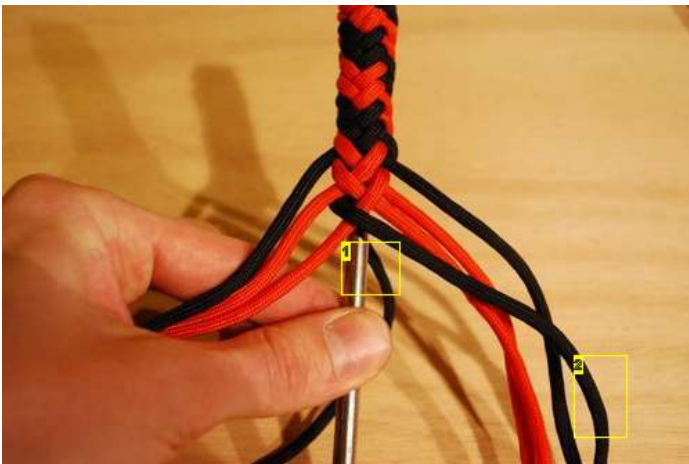


Image Notes

1. Make sure to trap the dropped strand with the active one.
2. This is the last active strand, ending up at the bottom, as always.

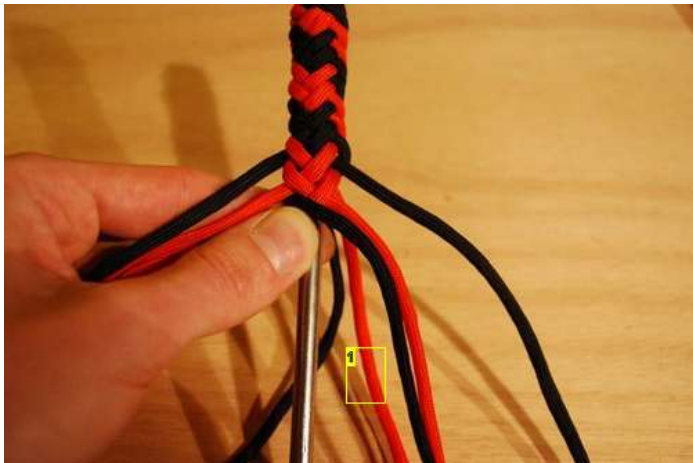


Image Notes

1. This will be the next active strand...
2. ...so it's time to drop this one.

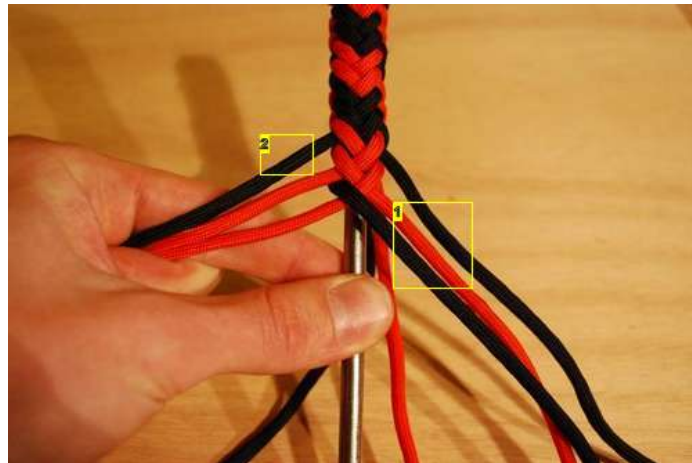


Image Notes

1. Let it down against the core.

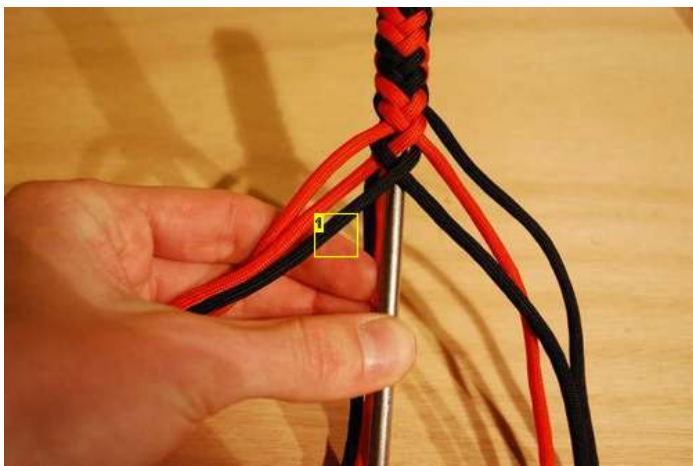


Image Notes

1. Grab the 3 strands left on this side...
2. This will be the next working strand.

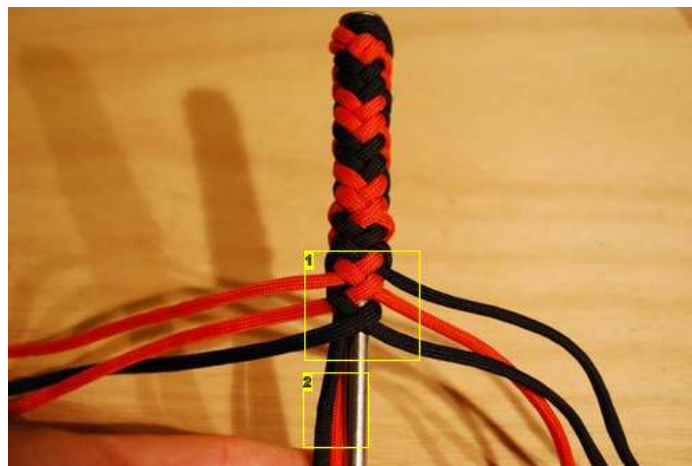


Image Notes

1. This strand was just worked as always: under 2 over 1

Image Notes

1. Plait the 6 strand plait to the next spot where the whip gets thinner.
2. Be sure to trap the dropped strands with the working ones. Then cut them after a few passes. They will be hidden under the plait.

Step 12: Finishing the first layer

You will have to perform the 2 strands drop routine again at the next spot where the whip gets thinner. The technique remains the same.

When you reach the 4 strand plait, the formula simply becomes "under 1 over one" on each side.

Plait the 4 strand plait up to the point where the core becomes the single unwrapped paracord strand. You should have a few inches of strands left (up to 15-20 cm / 0.5-0.6 ft)

When you're there, temporarily tape the strands together so they don't come apart while you're plaiting the second layer.

You might also want to mark the spots where the whip gets thinner, it will make it easier to know when to drop strands on the next layer.

When you reach those spots, tie a small constrictor knot using one of your leftover inner strands or use a bit of duct tape depending on your preferences.

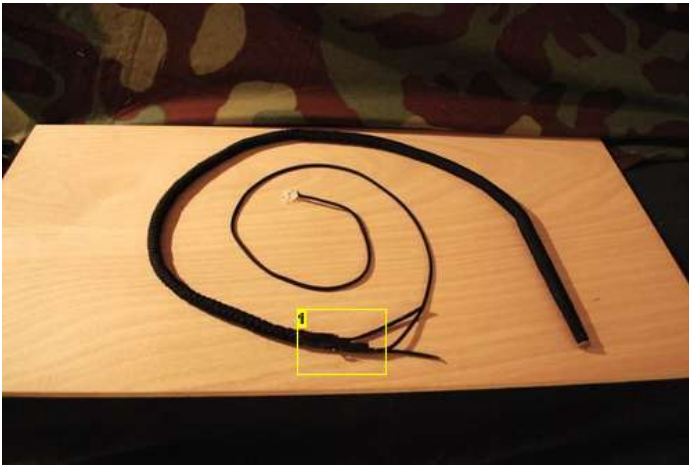


Image Notes

1. The 4 strand plait ends here, a bit past where the single strand core begins. Wrap this with tape until you reach step 15.

Step 13: Making the handle transition stiff

At this point the whole thing should start to resemble a real whip and behave like one.

Resist the temptation of playing with it too much though, you wouldn't like to see all that hard plaiting coming undone would you ? :)

You might find that the transition between the handle and the core is still a bit limp, we're going to reinforce things up a bit.

First , cover the transition with a looong, tight whipping.

When making the round turns, let the inner loop be out for a few turns every now and then.

Otherwise the combined friction of all those turns wouldn't allow you to pull the loop inside the knot at the end.

Take some time time to make this really tight.

Then cover the whipping with a tight layer of strong tape as you did for the core.

Don't go all the way up, just cover a few inches before and after the knot.

What you're looking for, is this part of the whip to stand up straight when held vertically (= not bending at a wild angle under the whips own weight).

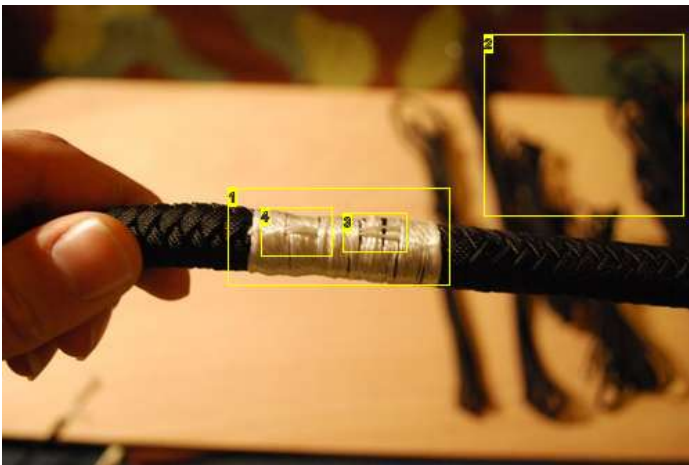


Image Notes

1. A long whipping with the inner loop strands sometimes in, sometimes out to avoid friction while tightening.

2. Ready for the next step !

3. out...

4. out...

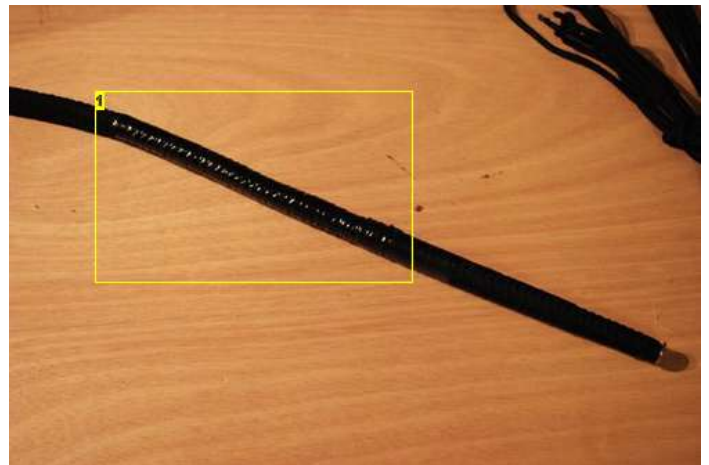


Image Notes

1. Cover a bit of the transition with a tight layer of strong tape.

Step 14: Plaiting the 12 strands outer layer

You already guess what goes in this step.

First , get/cut your strands for this layer :

- 2x 7,30m
- 1x 5,50m
- 1x 5m
- 1x 4,30m
- 1x 3m

Once again, take the inner strands out and fold your gutted paracord in half .
Work from the middle to get your 12 strands.

Begin this layer as you did the first one, only arranging the strands by groups of 3 instead of pairs (see pictures)
Begin plaiting with the upper right strand, then go on as you did so far.

The formula for the 12 plait is under 3, over 3 .
remember to keep things tight and even.

When you reach the marks where the whip becomes thinner, go a bit past them (remove your marking aid) and drop 2 strands as in the previous steps.

The formula for the 10 plait is under 3, over 2.
For the 8 plait it is under 2 over 2.

Continue the 8 strand plait until you reach the point where the taped part of the inner layer is.
Remove the tape.

Cut the 2 shortest strands of the inner layer there.
Cut the remaining 2 at 10cm(0.30 ft) and 15-20cm (0.5-0.65 ft)

Continue the 8 plait over these.

Drop to a 6 plait (under 2 over 1) as you progress.
Then to the 4 plait (under 1 over 1) when to the end of the lone inner cord.

Keep 15 cm of strands at the end to tie the fall knot.(next step)

Once again, the pictures featuring orange paracord are illustrations, they're not what your actual whip should look like at this point.

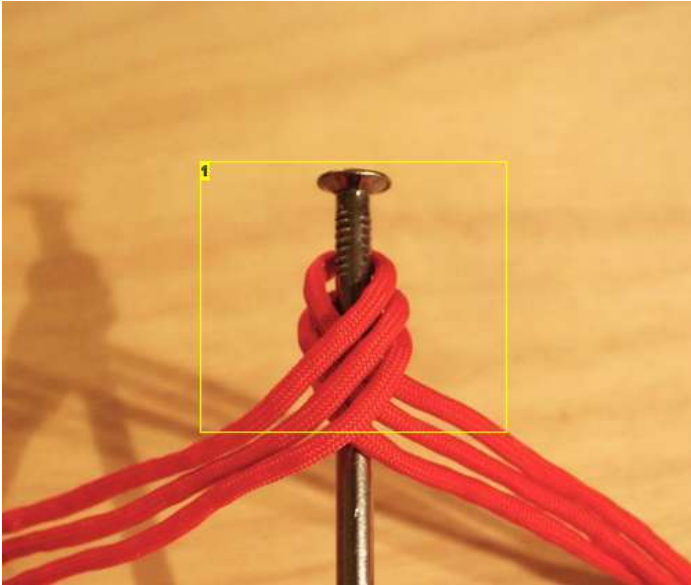


Image Notes

1. Begin the 12 plait exactly as the 8 one. Only using groups of 3 strands instead of 2



Image Notes

1. Once again, this will be the first working strand.

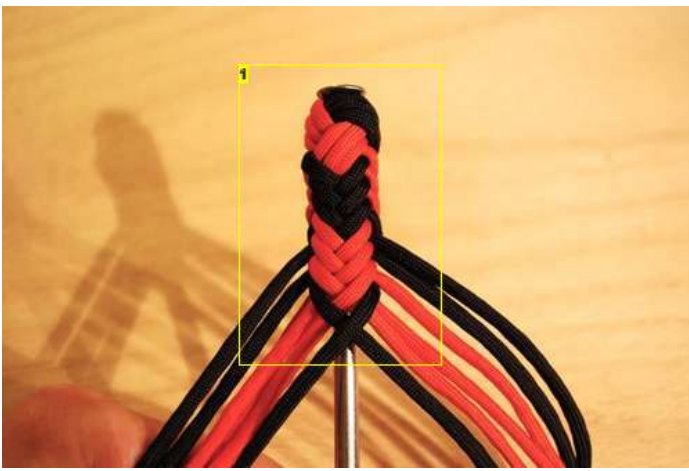


Image Notes

1. I couldn't resist plaiting some more :) This is under 3 over 3, it should look familiar to you at this point.

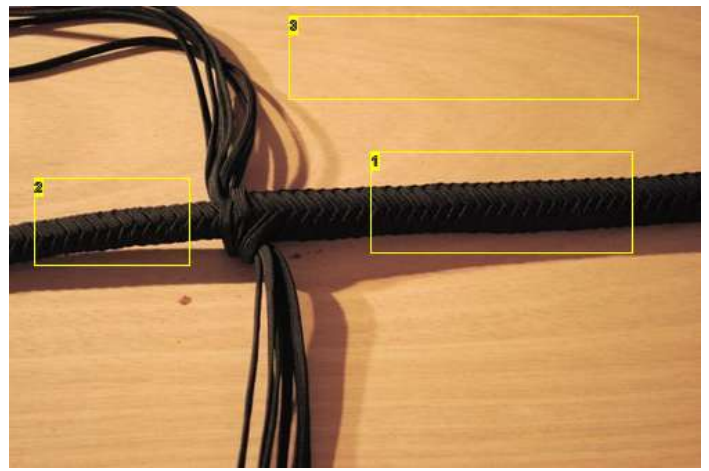


Image Notes

1. The outer layer
2. The inner layer
3. On the actual whip, things will look like this.

Step 15: Finishing off

This part might be a little tricky.

I'll once again show it with 2 colors of paracord to make things clear.

When you reach the end of the plait you will have:

- 4 strands from your plait
- 1 strand from the core.

Prepare the "fall" as shown:

- Cut an armlength of paracord
- Be sure to melt both ends
- Pierce it near the top
- Thread the other end of it through the hole (This can be very tricky, make sure you melt the end of the cord in the smoothest and sharpest fashion you can.)
- Put the loop you just frmed around the end of your whip.

Then you will need to tie that mess together in a clean way.

The theory behind it is quite simple: you will use each of the 5 strands in turn to make a half hitch around ALL the other strands.

It's easy to get lost at this point since all those strands will look alike.

Don't make it tight yet.

When you've tied your 5 knots (the last one being the one tied with the core strand), use the help of something thin like your marlinspike, a big nail or the awl from your favorite multitool to thread this last strand through all of the previous knots.

Then put it's end through the loop of your fall, tighten the loop, and pull on the fall so it goes inside the knots, altogether with your last strand.

Then you can finally make it as tight as you can, and trim the edges.

Don't get frustrated if you can't get it right, i had to do this again a few times, both during the original project and the shooting of the additionnal pictures.

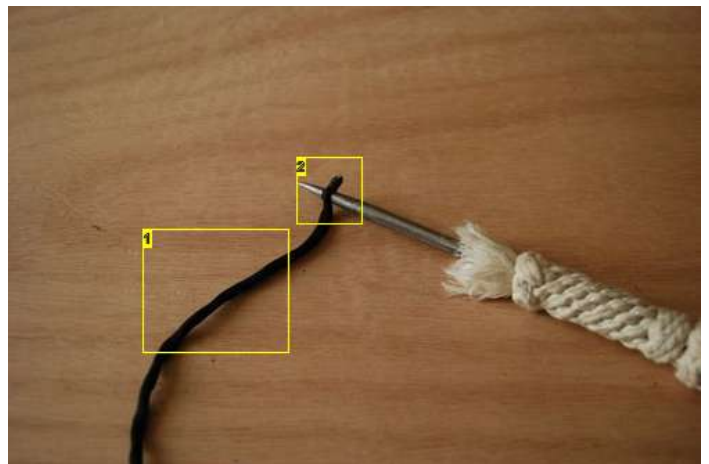
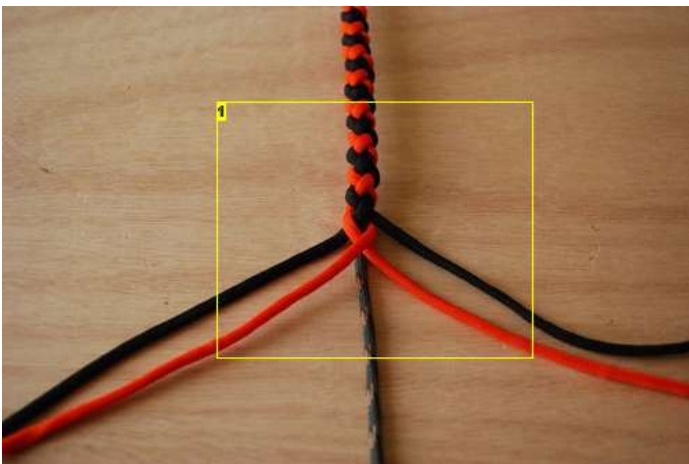


Image Notes

1. At the end of the second layer, the end of your whip looks like this: 4 plait strands + 1 core strand.

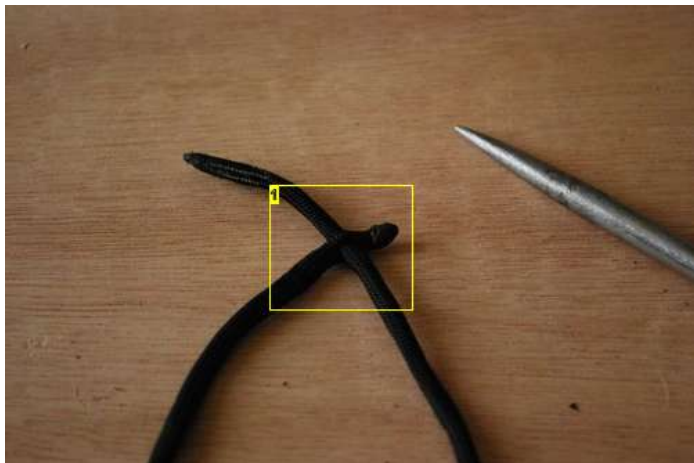


Image Notes

1. This will be the fall. It's an arm length of paracord with all the inner strands intact.
2. Pierce it as close to the tip as you can. Make sure to melt it well.

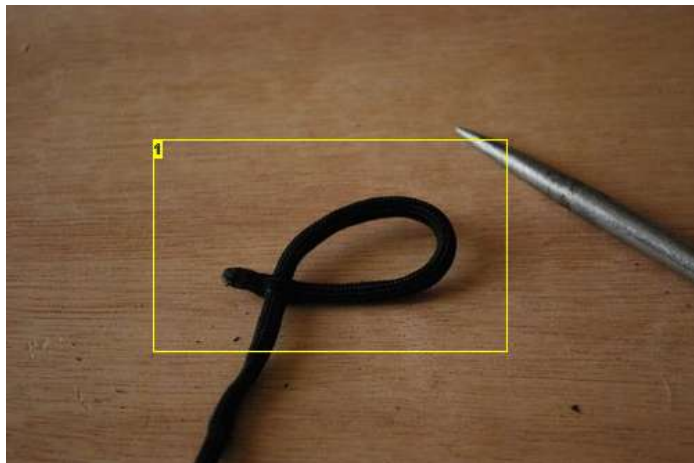


Image Notes

1. Then thread the other end of the fall through the hole. Good luck with that one :)

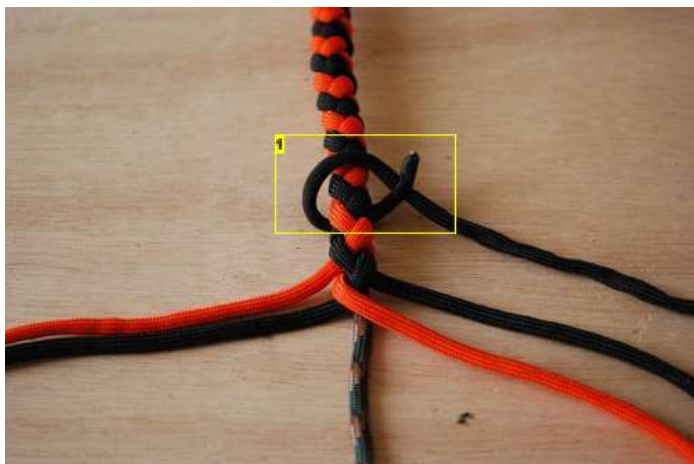


Image Notes

1. You'll end up with a loop.

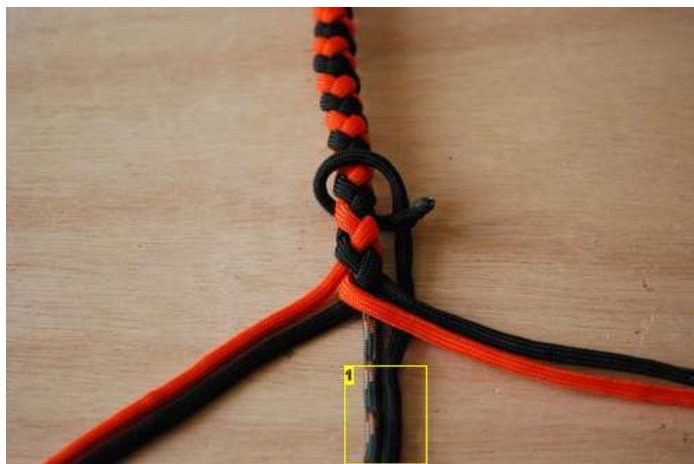


Image Notes

1. Pull the loop around the end of your whip, don't make it tight yet.

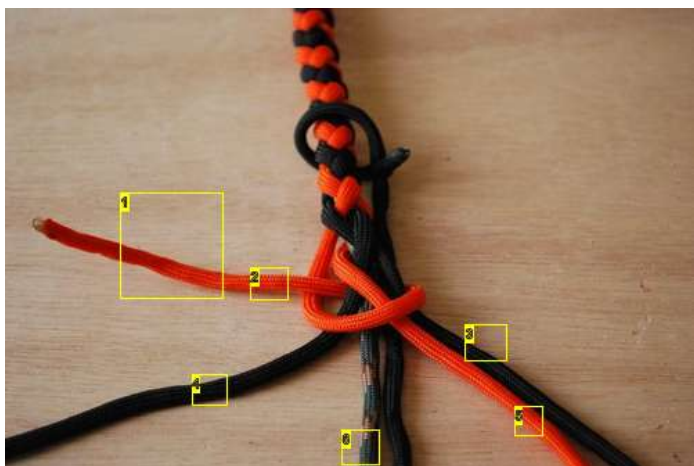


Image Notes

1. Lay the remaining part of the fall against the core strand for now.



Image Notes

1. Tie identical half hitches with the 5 strands in turn. Be sure to trap ALL of the remaining strands each time.
2. 1st
3. 2nd

Image Notes

1. Don't pull them too tight yet



- 4. 3rd
- 5. 4th
- 6. 5th

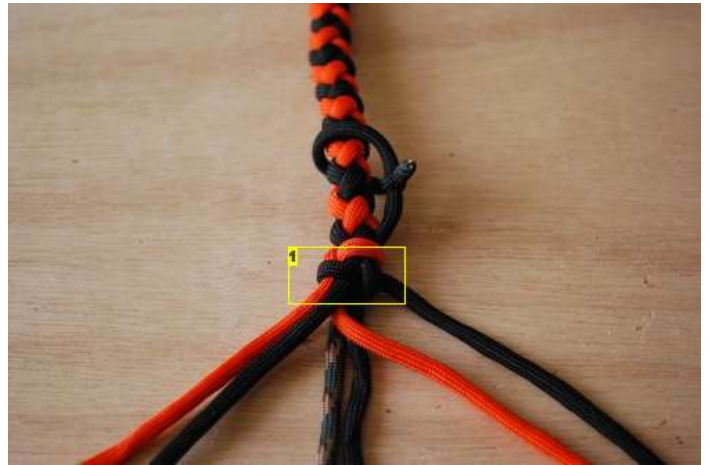


Image Notes
1. 2 knots so far...

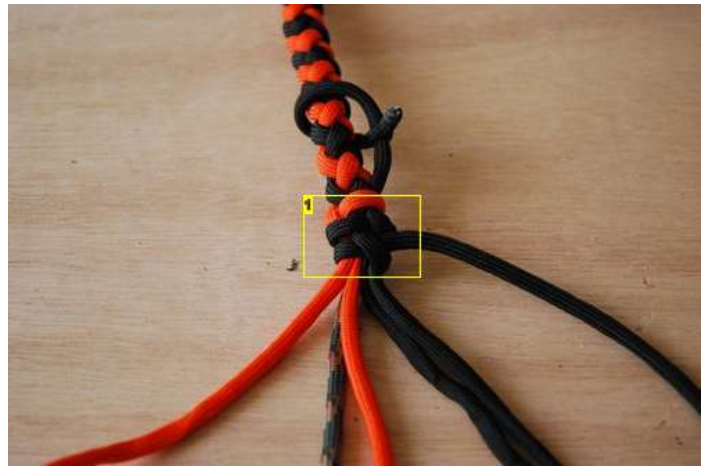


Image Notes
1. 3 knots

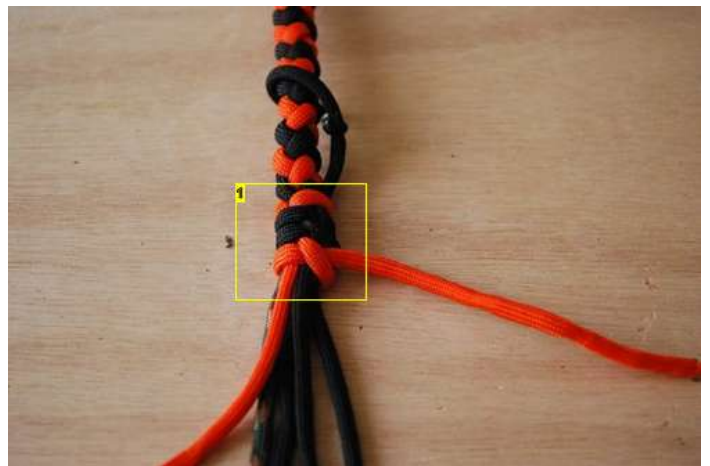


Image Notes
1. 4 knots

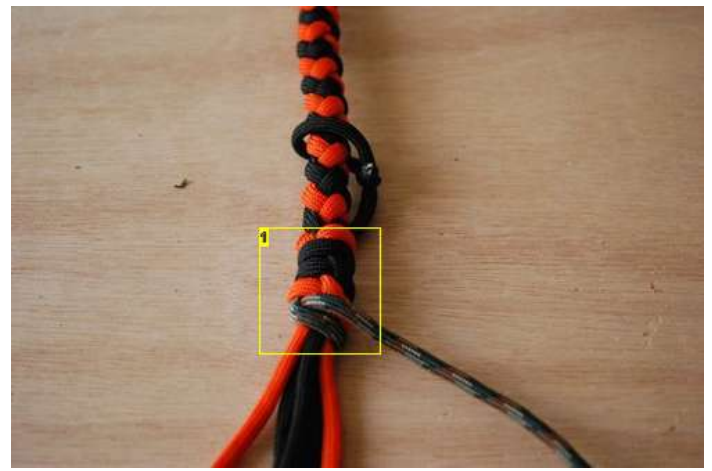


Image Notes
1. All five knots in place

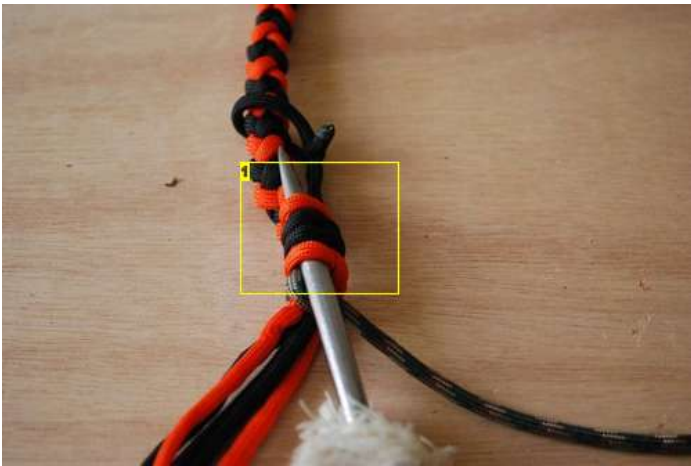


Image Notes
1. You will be threading the 5th strand (the inner one) through the 4 preceding knots.

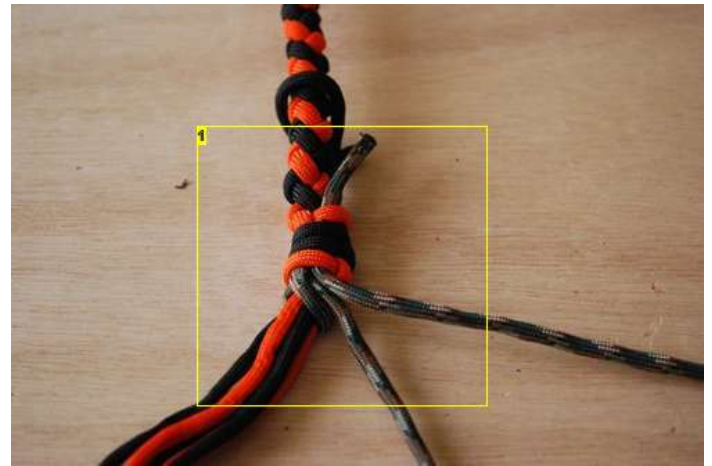


Image Notes
1. like this..



Image Notes
1. Pull it all the way through



Image Notes
1. Everything should line up neatly.

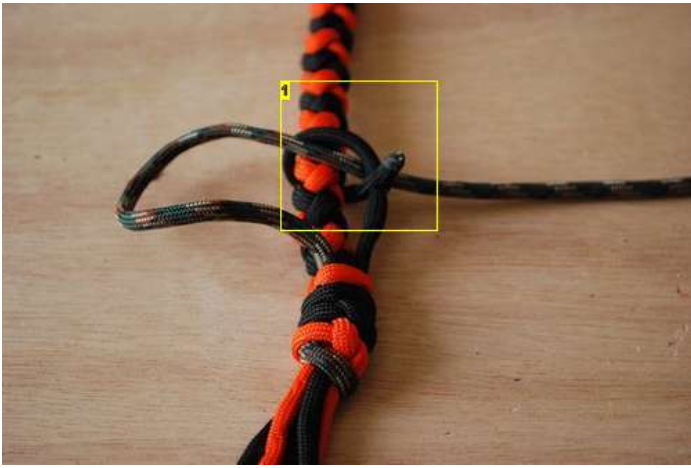


Image Notes

1. Finally thread the strand through the loop

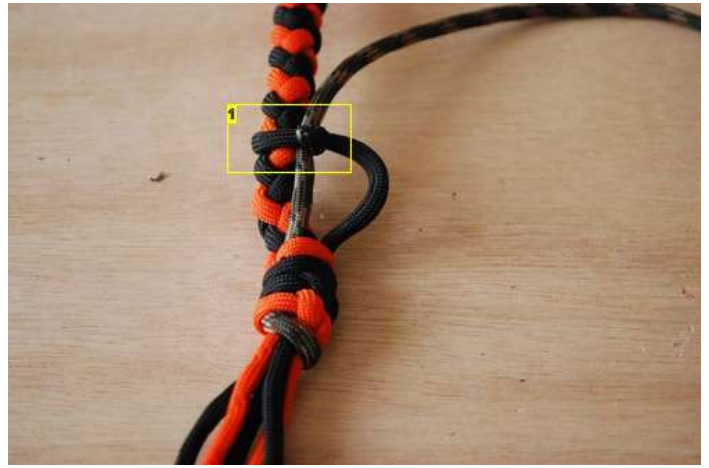


Image Notes

1. Tighten the loop..

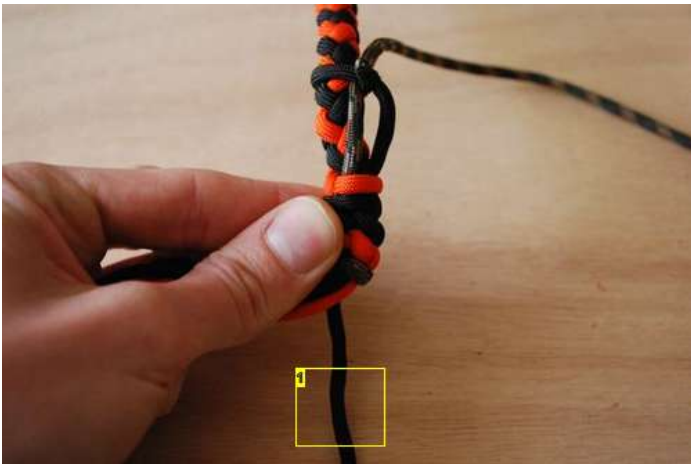


Image Notes

1. Then pull the fall inside the knot along with the last strand. Pull it as far inside as it will go.

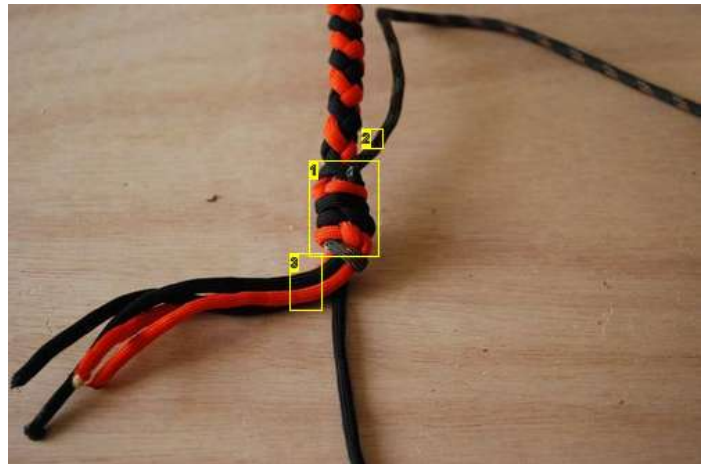


Image Notes

1. You're done! Put everything as tight as you can and then cut all the remaning strands short. Don't cut the fall ! :p
2. Cut
3. Cut

Step 16: Making the cracker

The last thing we will need to make things fully functional is the cracker. It's the part of the whip that makes the actual noise.

This is a throw away part of your whip as it will wear with use. When it becomes to damaged, just untie it, trash it and make a new one .

To make it :

- Take an arm length piece of your string
- Fold it in half, then twist the two strands together as you did when making the guts.
- Tie both strands in an overhand knot a few cm from the end
- Fray the ends

Then tie it to the fall as pictured.

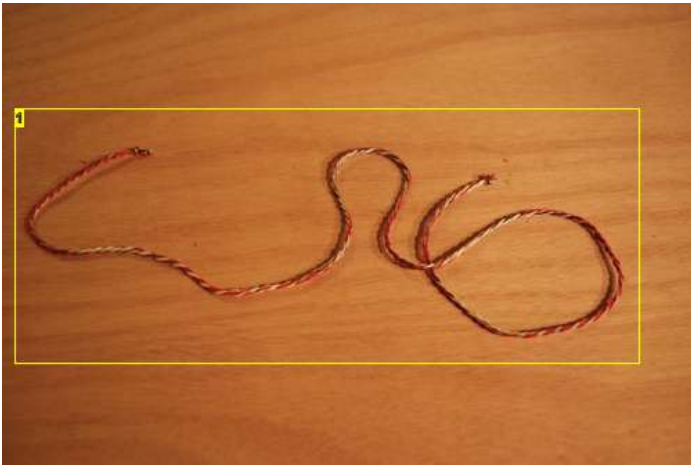


Image Notes

1. Measure an armlength of string



Image Notes

1. Fold in half.

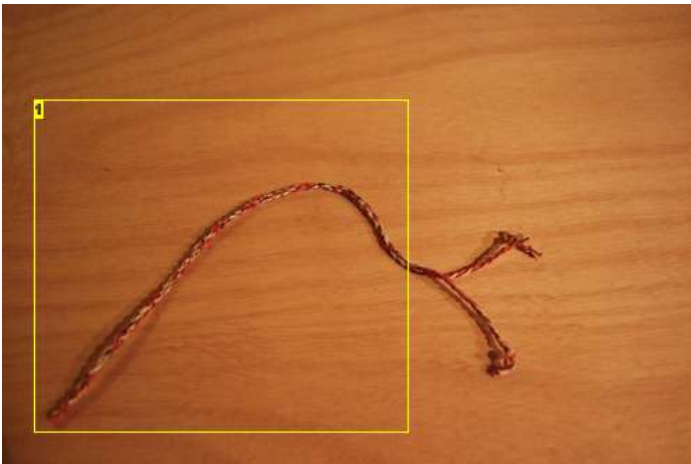


Image Notes

1. Twist it as you've learnt doing :)

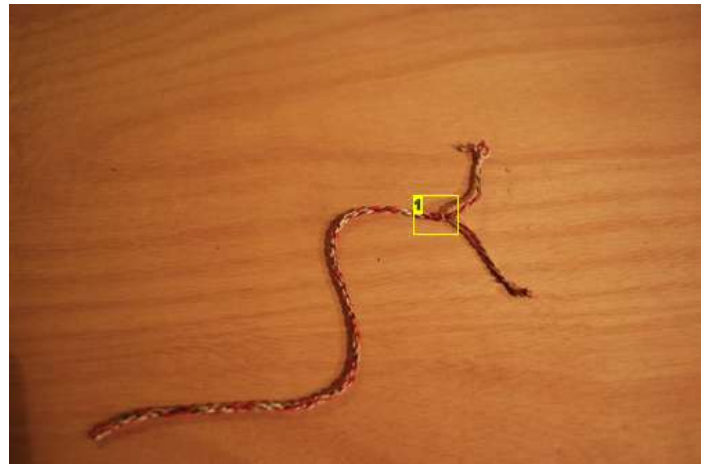


Image Notes

1. After all this, tying an overhand knot should cause you no trouble.

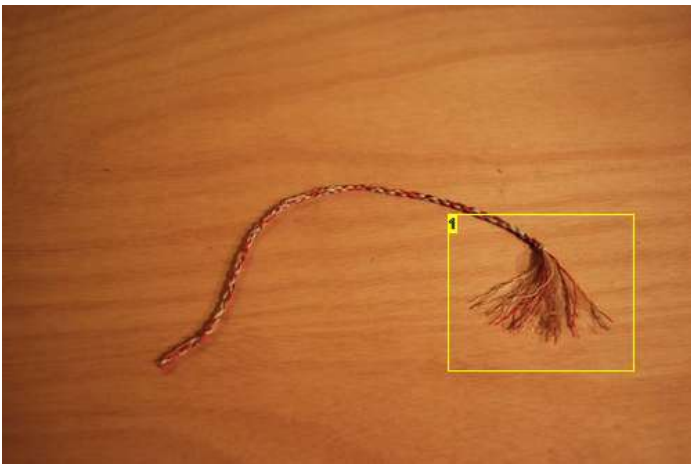


Image Notes

1. Fray the ends. Using a comb will help.

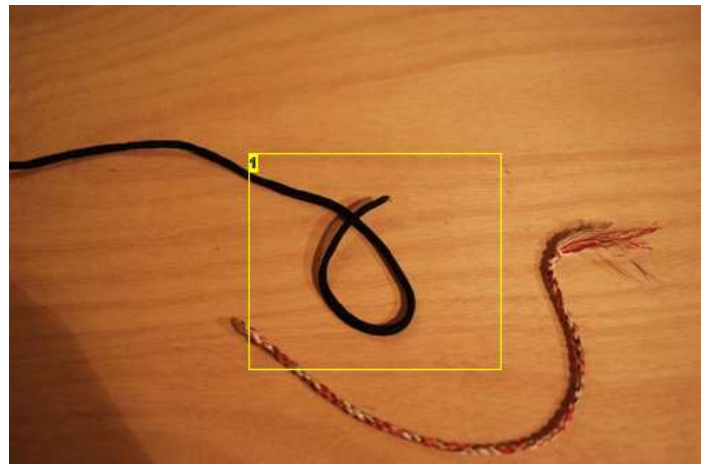


Image Notes

1. We will be tying the cracker to the fall. This knot is meant to be small and easy to untie even after supersonic abuse.

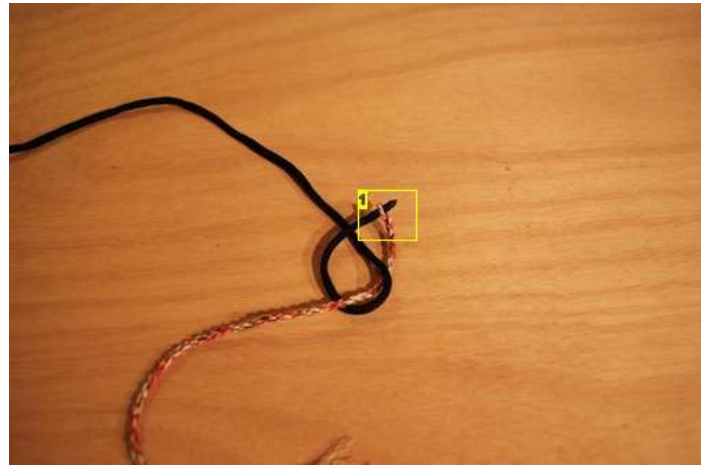


Image Notes

1. Thread the fall through the "eye" at the end of the cracker. See closup if you don't get it.

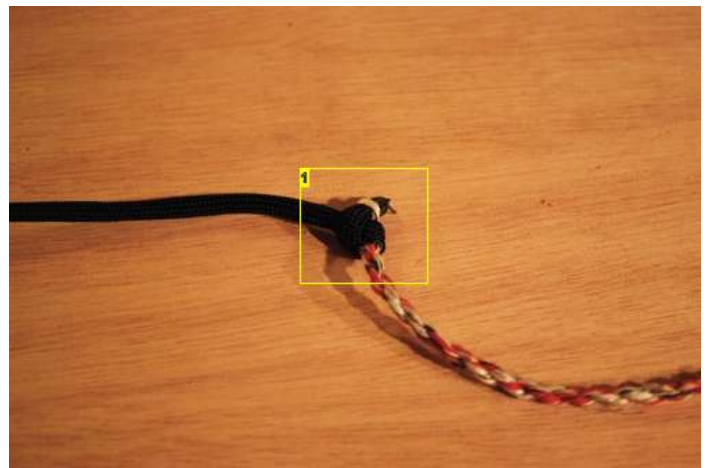
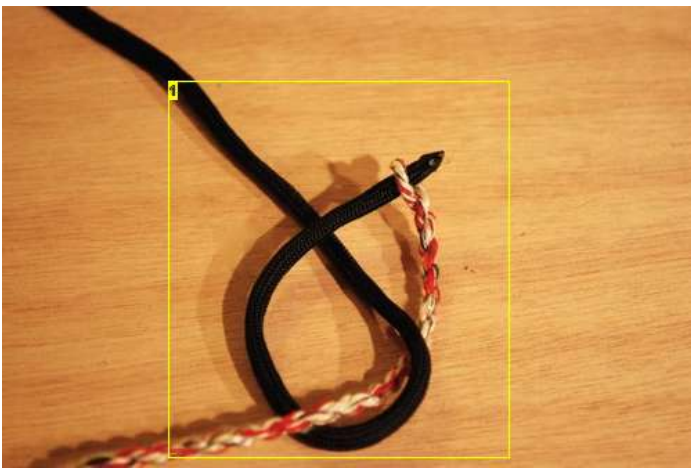


Image Notes

1. The final knot just before tightening.

Image Notes

1. Make it small

Step 17: Making it yours !

Congratulations !

You just got a homemade fully functional whip :)

At this point the finishing touch is up to you.

Fell free to decorate it with all your favorite knots or any other skills.

Here is what I have done:

- Tied a star knot at the end of the handle
- Made it hold with a Matthew Walker's knot.

Here are some suggestions for making yours unique :

- Use different colors of paracord in your plaiting
- Build up handles using fancy knots (see the marlinspike picture for an example)
- Use turks heads to mark the upper end of the handle
- Wrap the handle in leather
- Use various braids to make the handle
- Use a hollowed out golf ball at the end of the handle, cover it with a monkey fist..
- Use some carved wood handle instead of the nail, do something nice with the protruding end.

I will probably soon make a few other Instructables on the advanced knots if you lack inspiration.



Image Notes

1. The now fully functional whip!



Image Notes

1. The same with some refinements

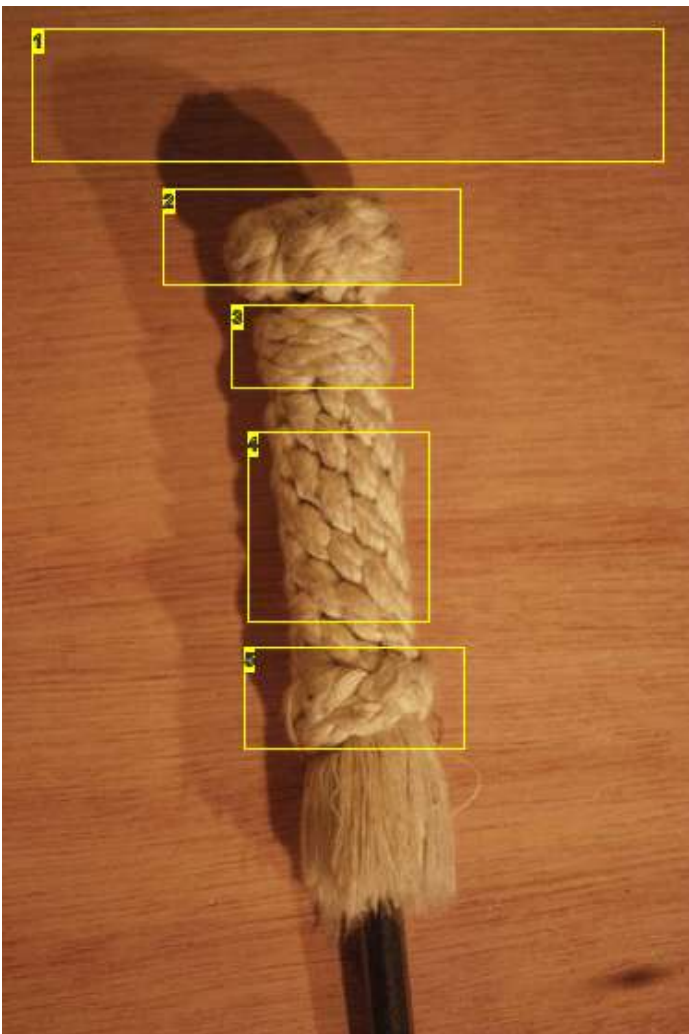


Image Notes

1. Here's a sample handle from a homemade marlinspike. You could do something similar to this on the whip's handle as well.
2. A star knot
3. Matthew Walker's knot
4. Crown knot covering
5. (messy) multistrand lanyard knot.



Step 18: Trying things out

Ok, now go outside for a test run of your new toy.

Cracking your whip is about technique, not force (and my technique just plain sucks , these are my first tries :)
They're lots of vids on youtube teaching you proper moves. Be sure to check a few out before trying to go Indiana Jones.

Remember to do this outside, and wear proper face protection untill you feel completely confident with it.
(A full face paintball mask would not be too much for beginners, it's SO easy to have the thing jump back at your face even if you think you are being carefull... And trust me...that hurts.)

I hope you enjoyed this instructable as much as I did doing this project.

Have fun and play safe!

Leave suggestions in the comments if you think that some steps deserve further explanation.



Step 19: Final reference sheet

Here's a final reference sheet with all the relevant data for making the whip once you've understood the process.

It sums up everything number related :)

You will need (Total):

- 60m (196 ft.) of paracord
- 2m (6.5ft) of lamp chain

Then cut it to the following lengths:

For the guts :

- x1 2m strand (6.5ft)
- x1 1m strand (3.30 ft)
- x1 80cm strand (2.6ft)
- x1 50 cm strand (1.6 ft)

Along with the corresponding 3 lengths of lamp chain for the shorter strands :

- 90cm (2.95ft)
- 60 cm (1.95ft)
- 30 cm (1ft)

The first layer is a 8 strand round plait

- 2x 5m -> 4x 2,5 (16.4ft)
- 1x 3m -> 2x 1,5 (9.90 ft)
- 1x 4,30m -> 2x 2,15 (14.10 ft)

The outer layer is a 12 strand plait:

- 2x 7,30m (24 ft)
- 1x 5,50m (18 ft)
- 1x 5m (16.4ft)
- 1x 4,30m (14.10ft)
- 1x 3m (9.90 ft)

The formulas for the various plaits:

12 strand: Under 3 Over 3
10 strand: Under 3 Over 2
8 strand: Under 2 Over 2
6 strand: Under 2 Over 1
4 strand: Under 1 Over 1



Related Instructables



How to make a bullwhip (no ducktape) by Radaradarable



how to make a bullwhip by freerunnin1



Paracord Whip by Sylkhr



Double-perfect Whipped Paracord Staff Hand-grip by Kiteman



DIY Camping Hammock by lerickson



Paracord Shoelaces by Wasagi

Comments

50 comments

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hailtothkngbby says:

Great instructable! You beat me to it! I have made several whips of paracord, but lack the documentation for a full on instructable as of yet. The most recent I made was a snake whip with plastic coated steel cable as the core. Keep up the good work. You have my vote and 5 stars!

Apr 13, 2010. 5:26 PM [REPLY](#)



ch5 says:
Thanks for your support!
Your whip sounds great ^^

Apr 14, 2010. 1:42 AM [REPLY](#)



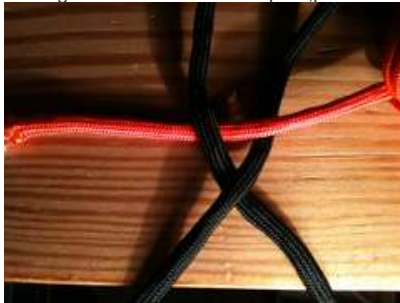
salomon1996 says:
hello again! :) this instructable is AWESOME! well, i finished my whip, but the only problem is i cant get the star not on the end of the handle, any tips? i will post some pics soon. THANKS!!

Jun 10, 2010. 10:40 AM [REPLY](#)



ch5 says:
I answered that earlier in the comments already: Once you've tied the knot on the table, it will very loosely fit around the nail's head. What makes it hold is the very tight matthew walker's knot tied with the remaining strands around the base of the handle. Then just cut the ends of the remaining strands so a few millimeters are left, melt them, and smear around the knot's end like an O-ring. Also, when beginning the knot, i dont melt 6 strands together like on the suggested website but rather cross 3 middle strands "over/under" like in the following. It helps saving some space. (you could also thread them through each other like in step 15, pic 3 to save some more and make the tying easier.)

Jun 12, 2010. 6:47 AM [REPLY](#)



salomon1996 says:
well, i tied my star knot, but i didn't do what the picture above suggests (at that time i had no idea what you were talking about in the other comment) and when i make my mathew walker knot, it just slides right off, it was tight too. any suggestion? (sorry if i am getting annoying with all my questions)

Jun 12, 2010. 7:50 AM [REPLY](#)



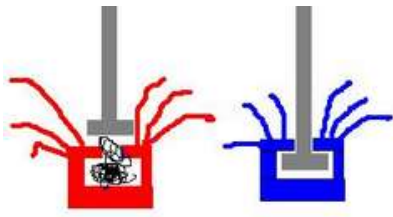
salomon1996 says:
here are some PICS!

Jun 12, 2010. 2:54 PM [REPLY](#)



ch5 says:
It looks nice in beige too :) I think that from the pics I understand what's going on: The melted part on your knot seems to take up a lot of space from inside the knot, and therefore you're just putting the knot close to the nail tip before tying it, leaving all the strain on the matthew walker. It should look more like the following illustration (fear the epic paint skillz ^^) Using one of the 2 techniques I mentioned for beginning the knot will probably help a lot. The nail's head is supposed to be stuck inside the knot after it is tied and dressed. It will fit loosely. I hope this helps.

Jun 13, 2010. 3:44 AM [REPLY](#)



salomon1996 says:

that helps a lot! thank you! i will remake the star knot, hopefully, and see if that works.

Jun 13, 2010. 6:54 AM [REPLY](#)



runowicz says:

hey! great instructable - i've made a whip of my own in a few hours :) could you please come up with a formula to calculate particular lengths of paracord for different whip lengths? is it just proportions i'm looking for or is there more to it? all the best, tomek

Jun 25, 2010. 3:17 AM [REPLY](#)



ch5 says:

That's the question I most get since I published this instructable.

But unfortunately, I don't know of any ratio for this.

Especially since many things might make it vary such as :your plaiting style , the initial materials, the thickness of your different layers...

I think using simple ratios based on this example should be close to what you'd need, but i'd recommend extending them a bit , just in case.

That's the only whip I've made so far so I lack data to make the estimates more accurate, but if you happen to try it with other lengths, I'd be interested in the outcome (lengths you used, length reached, leftovers..)

I'm glad you like it, thanks for your support ;)

(You're from Poland ?Right?)

Jun 29, 2010. 2:22 PM [REPLY](#)



runowicz says:

Thanks for responding. In fact I've made the one to your measurements for my kid (who is really into indiana jones at the mo) but had so much fun doing it, that i'd love to make another, possibly longer. The question is not so much about the length of the plating but about the guts. Logically the guts determine the length of the plating, so I can figure them out. It is just a question of dropping the thickness at the right points. How did you come up with the lengths? Did you just eyeball it? And, yes, I'm very much from Poland (Warsaw at the mo :) All The Best, tomek

Jun 29, 2010. 10:50 PM [REPLY](#)



ch5 says:

The exact place where the whip gets thinner isn't really critical.

Even I didn't 100% follow the exact measurements I give here.

To make it neat , if the whip is 5 sections long, thinning every 1/5 will probably work fine for the guts, maybe with the end segment slightly longer than the others.

You might also want to add additional sections (and a corresponding number of pair of strands to the plaits) to the whip If you want to make it longer.

Since they're 3 layers, when making each one, drop thickness 1/3 way of the underlying layer to get an even progression.

I made a (crappy ^^) diagram to better explain it below:

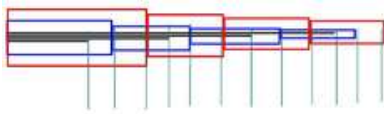
Black bars are the gut sections, blue is the first layer, red is the second one.

vertical green marks show points where the whip loses thickness, note that they end up evenly spaced.

I hope this helps.

(I was born in Warsaw btw ;))

Jun 30, 2010. 9:25 AM [REPLY](#)



runowicz says:

thanks a lot :) now i have enough info to figure it out :) (as for you being born in warszawa, well .. it's a small world already, and it's getting smaller by the minute :) regards, tomek

Jul 1, 2010. 12:46 PM [REPLY](#)



wangerton says:

so I'm layin on the couch snappin my paracord bullwhip around the room like I tend to do when I decided to revisit your instructable.

After perusing the comments for quite some time I realized no-one has actually posted a pic of a bullwhip they made using your directions.

So here is some photographic whippage for your ogle-ing pleasure. It aint perfect but neither am I. Your instructable was excellent, well written, easy to follow, at least if a dullard like myself could do it, well, you know.

Sep 15, 2010. 8:08 PM [REPLY](#)



ch5 says:

Sep 18, 2010. 5:50 AM [REPLY](#)

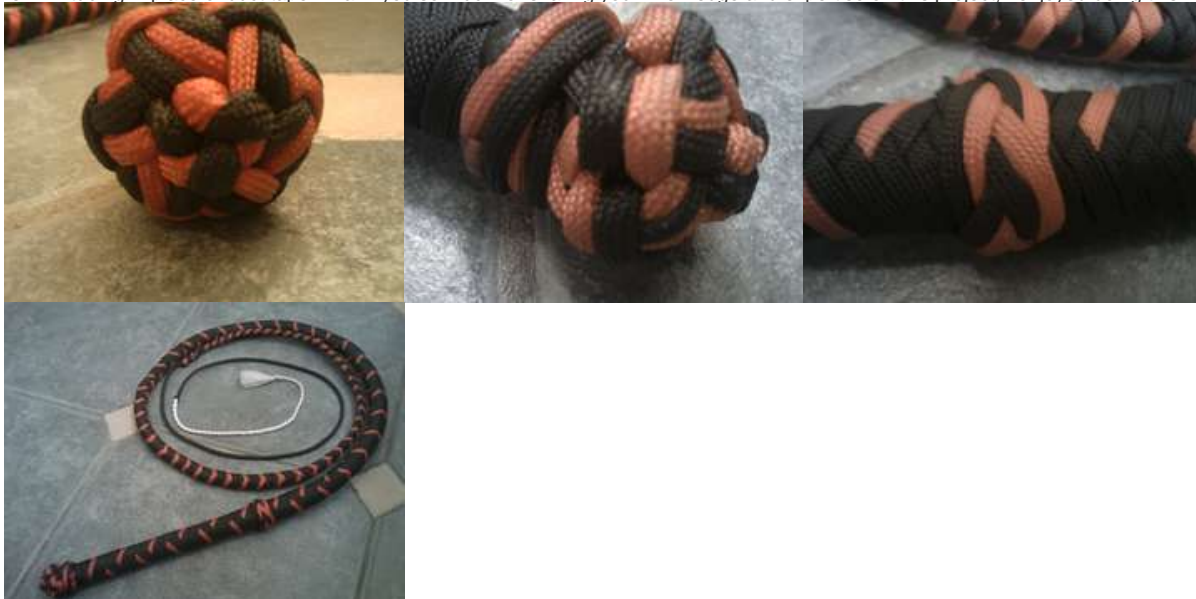
Hi, thanks for posting some pics, as you mentioned it I didn't get that much graphic feedback on this instructable, it's nice to see some. Also thanks for your support, doing this instructable took some work, and i'm glad people find it clear enough to follow. I hope you have fun with your hand made supersonic toy :)



Spy_64 says:

Nov 22, 2010. 4:30 PM [REPLY](#)

After many many hours over several weeks of evenings, I have complete my own using these instructions. I have made a few changes including larger lamp chain... which I think ultimately is the cause of mine being a bit shorter; from the tip of the handle to the tip of the fall it is 8ft. 3in. Looking at your star knot and handle compared o mine, I believe the spike I used for the handle was a bit larger, but it tapers nicely to the whip. I had to use more material in the plaiting for some reason I cannot explain and still ended up too short on the plaiting. Also, I think I pulled the plaiting too tight, as my whip is very rigid and in some spots was not able to hide the drop strands very well because I could not slide the bottom strands up enough to hide them. I thought the red stripe would make the whip stand out a bit more. Like yours, I fastened the star knot with a Mathew Walker knot, but I crowned the star knot to fill the hole in the end and have three passes through the rabbit holes. I put a turks head on to mark the top of the handle. Unfortunately, I did not know how to hide the ends to the Mathew Walker or the Turks head nicely, so there is a small dot where I melted the ends where each string came out. Also, I cut the ends off short and melted them to the half hitch knots where the fall attaches because I got ahead of the instructions, where you left the ends just cut short, but it ended up looking fairly nice regardless. I didn't have any medium diameter string, so I made the cracker out of some of the guts from the cord and it worked extremely well. This whip cracks incredibly loud and easy. All in all, I am very happy with the results of my first attempt. I think my next will go faster and a bit smoother. There are a few things I may put my own twist on with the next one. One of the bigger changes I may make next time is using shrink tubing in place of duct tape. Thank you so much for sharing your knowledge and expertise on this project, I enjoyed doing this immensely. (;



ch5 says:

Dec 5, 2010. 5:34 AM [REPLY](#)

Hi, your whip looks very nice :)

I featured your comment so everybody can see the results near the top of the page. I also planned on using multiple color strands, but didn't have long enough strands of matching colors at the time.

How many orange strands did you use ? My guess from the pattern would be one ?

Very nicely done, and thanks for your support :)



WataAtaCrackahJack says:

Feb 13, 2011. 11:31 PM [REPLY](#)

good stuff... here are pictures of a few whips I have made, and by the way I'm only 16 so I'm sorry if the pictures don't look very "professional" XD

The 100 % complete ones are shown in close ups, the 8ft blue one is gutted paracord with simple round diamond and tripled 4 strand plaiting on the handle, the black one is a 10 ft 8 plait "Indy" Bullwhip made of... the DIYer's best friend Duct Tape



ch5 says:

These look nice !

I was wondering: how good does the duct tape one perform?

What did you use on the inside ?

It looks great. Did you fold the tape strips lengthwise to get a thinner non-sticky band ?

I

Feb 16, 2011. 8:26 AM [REPLY](#)



J.A.R.V.I.S. says:

Whiplash was jealous. He's coming

Mar 14, 2011. 6:53 PM [REPLY](#)



Darter76 says:

I have heard of using lead shot from a shotgun round as the core inside the gutted paracord instead of the pull chain. Is there any advantage to this, or would it just be a waste of my time?

Mar 11, 2011. 5:35 PM [REPLY](#)



KovuKora says:

Wow-wee! Totally gonna have to make this a project for my dad and myself to do!

Mar 3, 2011. 3:47 PM [REPLY](#)



WataAtaCrackahJack says:

for my duct tape ones I folded over the strands individually, I used the same nail for the handles and a couple of the whips have shot loaded cores, I learned how to do that here:

http://www.youtube.com/watch?v=AiO27UtODbU&feature=mfu_in_order&list=UL

then I would do what you did here: 1 plaited belly partially inside and then the overlay. The black duct tape one is much different with an electric cord on the inside and 4 plaited bellies (not including the overlay XD) so it is the most nose heavy but smooth flowing of them all. and they do work great

Feb 16, 2011. 5:08 PM [REPLY](#)



salomon1996 says:

whoohoo!! done with the third one! one tan, and two black! :D

Dec 14, 2010. 6:14 AM [REPLY](#)



ch5 says:

:D

I didn't think that could be so contagious.

Dec 19, 2010. 9:49 AM [REPLY](#)



salomon1996 says:

hehehe :P

Dec 19, 2010. 11:27 AM [REPLY](#)



uniqueutopia says:

Hey great instructable... will have to give it a go (my son is currently Indiana Jones mad)... thanks for showing us how!

Dec 1, 2010. 11:47 PM [REPLY](#)



ch5 says:

Thanks too.
You're welcome :)

Dec 19, 2010. 9:48 AM [REPLY](#)



Spy_64 says:

I have found that mosquito cord works exceptionally well for a cracker. Light weight, super strong, flexible and small diameter (1/16"). Its sheathed with nylon like paracord but has a twisted pair of very tough nylon string in the core.

Dec 16, 2010. 3:32 PM [REPLY](#)



jcbhaney says:

when you get to the end of the inner layer,wont that have a big thickness change?and also,how to you finish off the inner plaiting?...thanks for the instructions!

Nov 26, 2010. 4:37 PM [REPLY](#)



ch5 says:

Well, it's as small as can be made.
You don't need to finish the inner layer in any fancy way.
You just tape it temporarily so it doesn't unravel while you plait the second layer. While the second layer reaches over the end of the first one, it just holds the strands of the first layer inside.
The second one is ended as shown in step 15.

Dec 5, 2010. 5:45 AM [REPLY](#)



napstr007 says:

Hey just wondering but I'm working on this project and I'm wondering why the chain sections are shorter than the paracord sections you put them in. Any reason?

Sep 25, 2010. 6:41 PM [REPLY](#)



ch5 says:

Hi, your whip looks very nice :)

I featured your comment so everybody can see the results near the top of the page. I also planned on using multiple color strands, but didn't have long enough strands of matching colors at the time.

How many orange strands did you use ? My guess from the pattern would be one ?

Very nicely done, and thanks for your support :)

Dec 5, 2010. 5:37 AM [REPLY](#)



Spy_64 says:

Oh yah and by the way you have my vote as well out of 5 stars, you get 6! (c;

Nov 22, 2010. 4:34 PM [REPLY](#)



pgg120495 says:

and how did you tie the knot four wires after crimping

Nov 16, 2010. 1:27 PM [REPLY](#)



chaddv79 says:

I bought some 550 Paracord and I'm unable to pull the chain through by any means. I also tried fitting a BB into the empty casing. It wouldn't hardly fit. I was wondering if the Paracord itself was maybe substandard in size or am I just doing something wrong.

Oct 21, 2010. 3:30 PM [REPLY](#)



ch5 says:

I had much trouble doing it myself.
The only way that worked for me(and it was easy) is the one I described: by pulling the chain through by using an already threaded inner strand.
Putting the chain through it in any other way just seemed to be impossible, it took minutes just to progress a few mm.

It's also possible you got some knock off version of paracord depending on where you purchased it : /

Oct 23, 2010. 5:15 AM [REPLY](#)



Spy_64 says:

I would love to see a couple indestructibles like a net bag, or especially a hammock from the remaining inner strands. (c;

Oct 18, 2010. 3:34 PM [REPLY](#)



bears0 says:

in case you would like to know, the middle strand is called the "belly" of the whip

Oct 11, 2010. 2:44 PM [REPLY](#)



Dr. Tarantula says:

what kind of crack is that in the video because it looks like your hitting the concrete and not creating the loop necessary to break the sound barrier and that can destroy your whip really quickly

Sep 15, 2010. 8:52 PM [REPLY](#)



ch5 says:

It's some kind of personal variation I came up with when trying my whip for the first time. Its lies somewhere between the overhead crack and the cattleman's crack I guess. But I'm not hitting the ground at any time, the whip cracks properly at eye level right before me. (Is that a BM42 in your profile picture ? I love mine so much ^^)

Sep 18, 2010. 6:05 AM [REPLY](#)



mtm101097 says:

wow this is an amazing instructable!

does any1 know what paracord is called at homedepot/lowes/ace? I found this stuff called braided poly rope or braided Polypropylene rope. is this the same as paracord?

great job i wanna try this!

Apr 13, 2010. 12:56 PM [REPLY](#)



wn7ant says:

Good question. It's not the same stuff at all. I went to Home depot. I didn't see parachord or 550 chord (2 names for the same thing). Try other sources.

Sep 2, 2010. 8:51 AM [REPLY](#)



alexnando says:

(removed by author or community request)

Aug 23, 2010. 6:08 PM



alexnando says:

I finished mine... it's not perfect, but it works.... not bad for a first attempt! I've just found some trouble in understanding how correctly drop the unneeded strands. I'm now looking for a good way for making the final refinements on the handle

Aug 24, 2010. 1:59 AM [REPLY](#)



hondarider_206 says:

I have also heard of plaiting over a spring at the end of the handle to simulate the effect of the tape wrapping

Aug 22, 2010. 7:50 PM [REPLY](#)



ch5 says:

While wandering in the hardware store, I've found two interesting items :
- large springs used to evenly bend copper tubes by hand (i'm not sure how they're called)
- brushes fixed on a very long and thin springs , used as drain cleaners.

Using them both as a handle and guts, I'm sure one could make a really powerfull whip with these.
I hope I have enough time to try this soon :)

(here's how those "things" look like)

Aug 23, 2010. 9:58 AM [REPLY](#)



king kolton9 says:

does anybody else get annyoyewd by that guy critising people about their instructables but has none example: pictures could make your instructables better person: i dont have one. guy: also more info could help person: this is all you need did you even read it. guy: pictures could make it better

Aug 23, 2010. 6:34 AM [REPLY](#)



WataAtaCrackahJack says:

Now thats pro I'm 15 I've been plaiting whips like that and it looks great but one thing I've always had problems is tying a turkshead knot on it, I was thinking of putting on a Monkey's fist instead but thats hard too

May 23, 2010. 3:27 PM [REPLY](#)



ch5 says:

May 24, 2010. 12:39 AM **REPLY**

15 ? That's nice, most of people of that age that I know barely know how to use their hands, it's nice to see that some of you are still "doing things".

When I was younger, It took me some time to figure out the turk's head too.

Now ,my favorite and quickest way of tying it is to begin with a double coin knot :

www.stellaceleste.com/htm/knots/double%20coin.jpg

Go up to step 3, then , just use end "B" to follow against end "A" to double/triple the knot.

You will end up with a flat knot.

Then, just put your thing to be wrapped inside the center hole, and begin tightening.

If you can find an easy way to remember how to tie the double coin knot, this might help you.

view all 191 comments