CHANGING YOUR STRINGS

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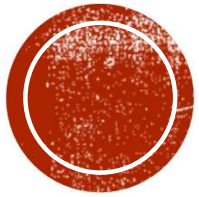
PLAYING MUSIC IS MORE THAN JUST MEMORIZING A BUNCH OF CHORDS ON YOUR INSTRUMENT.

That's difficult. And takes a long time.

WHEN SHOULD YOU CHANGE THEM?

- Based on various factors
  - How often do you play
  - How aggressively do you strum
- Signs of wear
  - Nicks / flat spots /grooves
  - Don't stay in tune (check tuning peg tightness, too)
  - Broken (obviously)
  - Dull sound
- You don't like the "sound" of them
- I change mine about once a year



CHOOSING STRINGS

WHAT STRINGS TO USE?

- Ukulele Size
  - Strings are sold in sets by ukulele size: Soprano, Concert, Tenor, Baritone
  - This generally only determines the length of the strings
    - You can likely install Tenor strings on a Soprano, but probably not vice versa
- Tuning Preference
  - Standard C Tuning
    - Sold as "High G"
    - Re-entrant tuning
    - G string is the same thickness as the A string
  - Standard C Tuning with Low G
    - Sold as "Low G"
    - Linear tuning
    - This usually comes with a "wound" G string

OTHER PREFERENCE OPTIONS

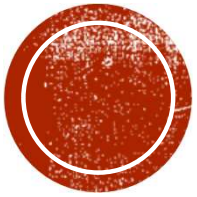
- What is your sound preference?
  - Mild / mellow
  - Bright / sharp
- What is color preference?
  - Clear / translucent (typical)
  - Dark / grey
- What is your budget?
  - Sets range from $2 to $20
  - You get what you pay for. Cheaper strings will:
    - Break more easily
    - Stretch unreliably
    - In the case of metal wound strings, will start to unravel too soon

STRING MATERIALS

Material	Sound	Pros	Cons
Nylon (ground or extruded)	Bright Sharp	• Many options • No temp / humidity issues • Very inexpensive	• Requires stretching and re-tuning when new
Fluorocarbon (fishing line)	Bright Sharp Powerful	• Stays in tune better • No temp / humidity issues	• Pricier than nylon
Real Gut Strings (goat / sheep intestine)	"Old-fashion" ukulele sound Mellow	• They are real gut • Traditional	• Don't stay in tune as well • Temp / humidity issues • Uses animal products • Expensive
Synthetic Gut Strings	Similar to Real Gut strings	• No humidity issues • Not an animal byproduct	• Has temp issues • Less expensive than real gut

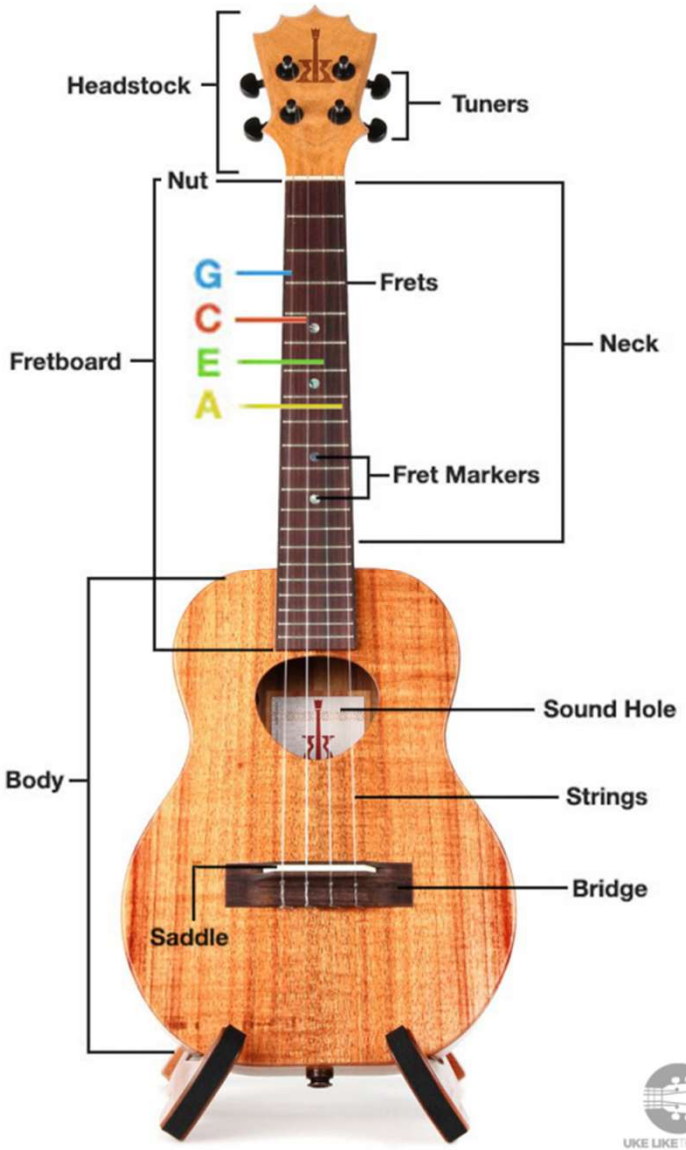
POPULAR BRANDS

Aquila Strings
LAVA Nylgut
$9 / set



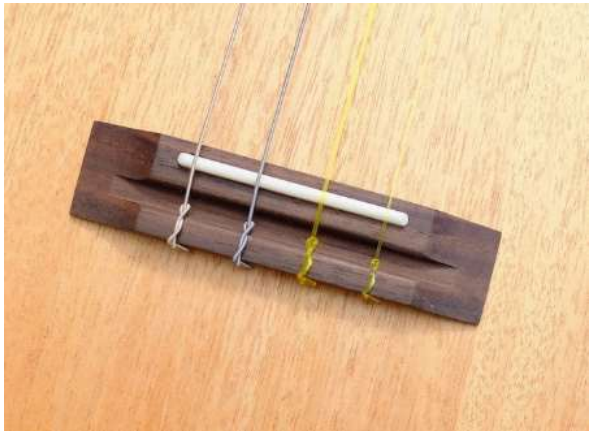
CHANGING YOUR STRINGS

PARTS OF A UKULELE

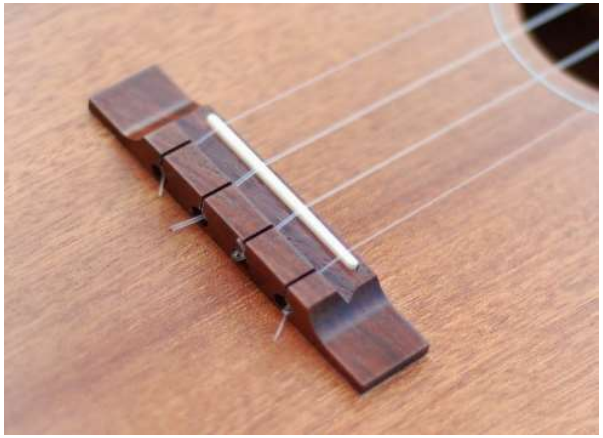


BRIDGE TYPES

Strings held by knots tied through holes in bridge



Strings held by knots tied and placed in slots



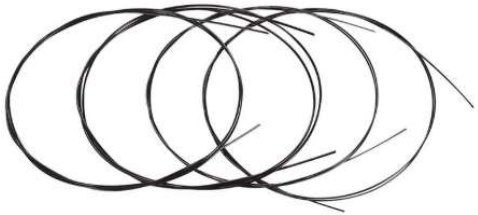
Strings held in by pegs

The following steps focus on this bridge type

THINGS YOU NEED

- New set of strings (don't unpack them yet)
- Wire cutters or scissors
- Needle nose pliers
- Soft, non-slippery surface to work on
  - I use a folded up blanket on my table
- Your tuner

- Things you may want, but don't really need
  - Tuning peg turner
  - "Nut Lube" = waste of money



PREP – LABEL STRING ENVELOPES

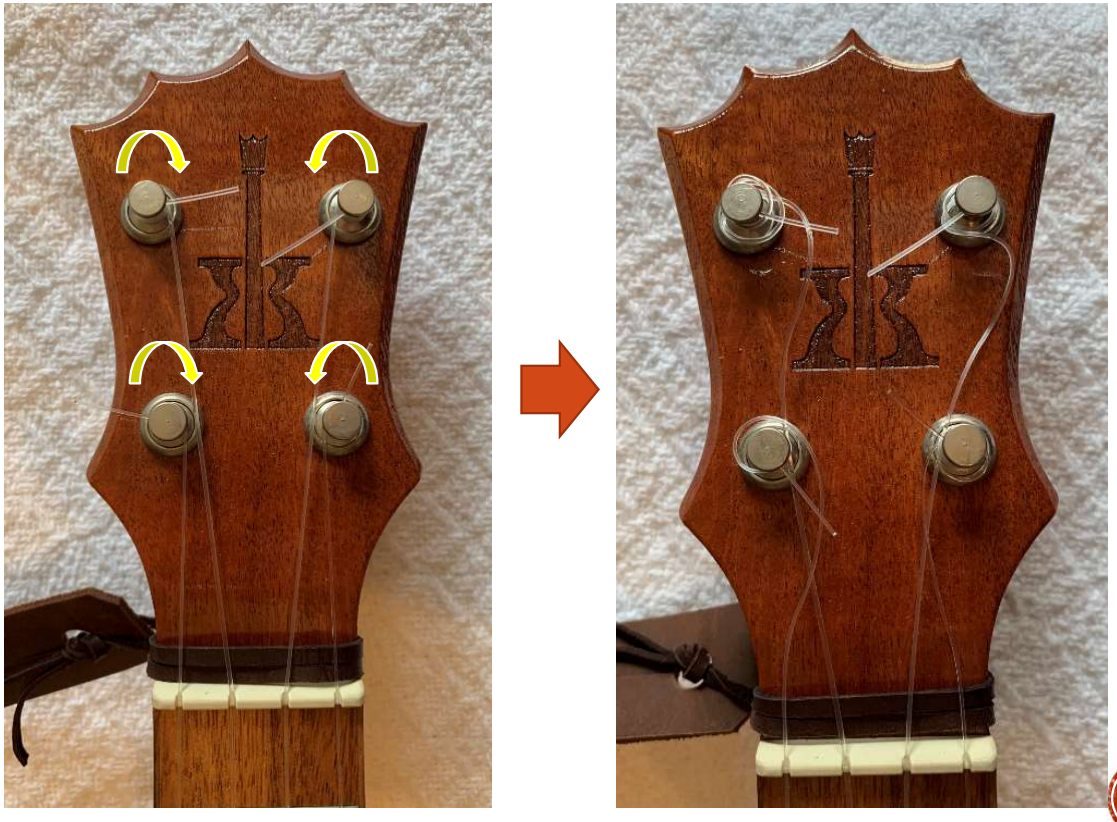
- DO NOT REMOVE STRINGS FROM ENVELOPES YET!
- Label each envelope with the string letter for easy reference

PREP – TAKE PICTURES

- Before doing anything, take pictures of your ukulele and its setup. Once you take everything off, you might not remember how it goes back on.
- Take pictures of:
  - Head stock and tuning pegs
  - Close up of each tuning peg
  - The nut
  - Bridge and saddle
  - Any knots at the bridge

1 – REMOVING THE OLD STRINGS

- Turn the tuning pegs one at a time so that the strings begin to slacken slightly
  - Turn each peg 2-3 turns, then move on to the next peg. This way you don't have one completely loose peg while the others are still under tension
- Continue turning the pegs in order until all of the strings are loose and floppy



2 – REMOVING THE OLD STRINGS

- Cut each string in half with wire cutters or scissors

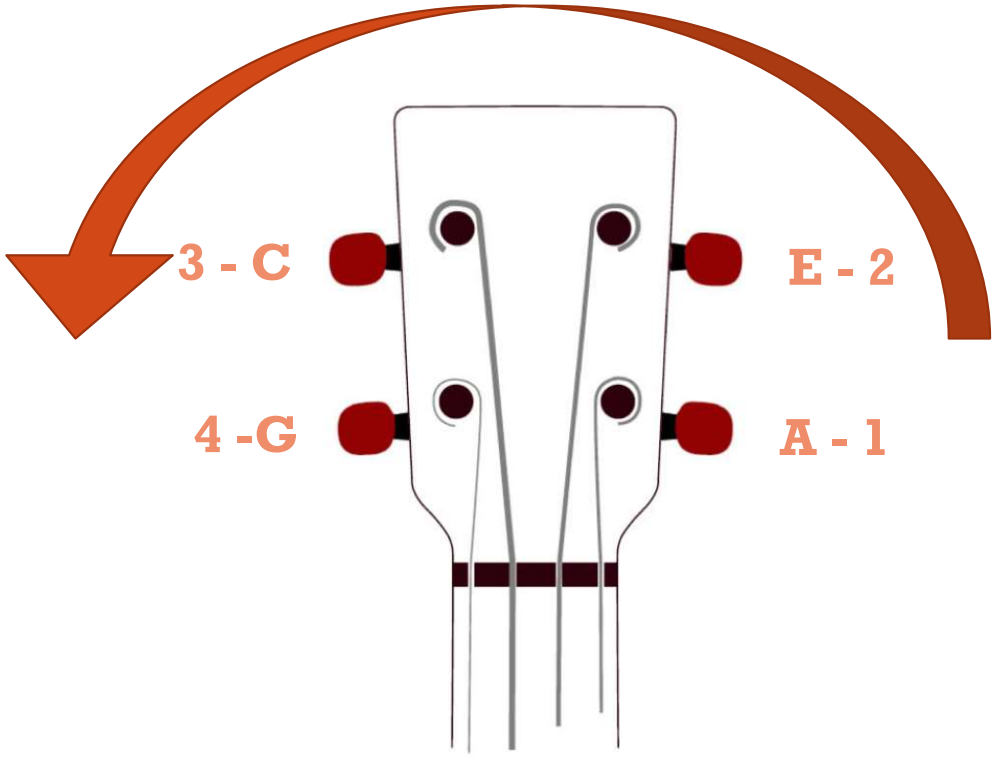
3 – REMOVING THE OLD STRINGS

- Slide each string through the loop of the old knot
- Then carefully slide it through the hole in the bridge and throw it away

4 – REMOVING THE OLD STRINGS

- Unwind each string from its respective tuning peg and throw it away

STRING INSTALLATION SEQUENCE

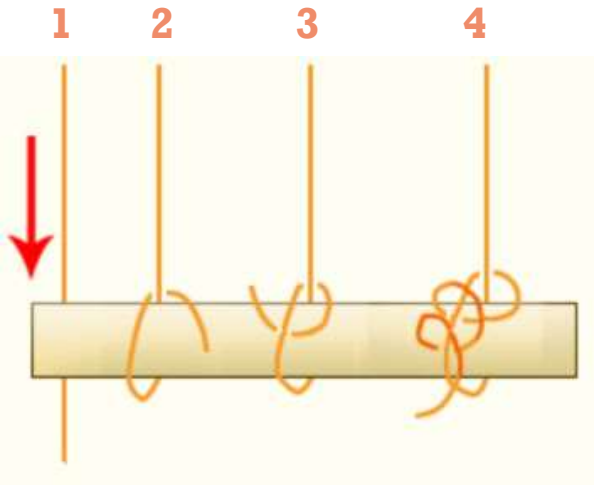


5 – INSTALLING THE "A" STRING

- Remove the string from its envelope and uncoil it
- Poke one end through the appropriate hole in the bridge and pull 4"-5" of string through hole

6 – INSTALLING THE "A" STRING

- Tie the string to the bridge using this knot
  1. Pull about 4"-5" the string through the bridge
  2. Wrap the string's end below the bridge *behind* the string *above* the bridge
  3. Poke the end through the loop
  4. Wrap the end around over and through the loop 2 times
- Cinch down the knot so it's flush with the bridge, but not very tight (you might need needle nose pliers to grip the string's end enough to do this)
- This should leave 3" of string below the bridge and pointing to the left (towards the G string's hole)
- DO NOT TRIM THE STRING YET



1.

2.

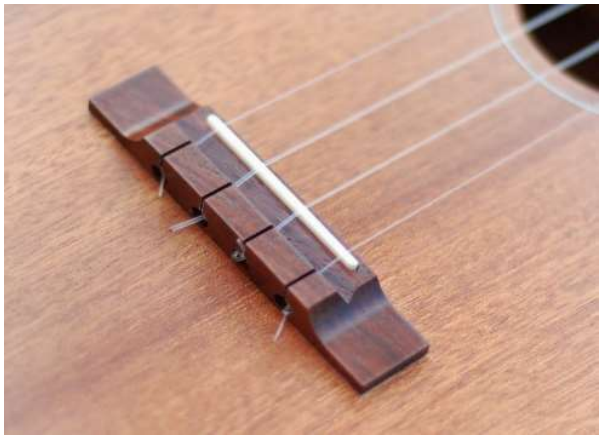
3.

4.

You might need to use needle nose pliers to grip the end of the string in order to cinch the knot down

USING KNOTS

- If your saddle requires knots to hold the string in place, you have to tie knot on one end of the string
- Use either a double over-hand knot or a figure-8 knot



DOUBLE OVERHAND KNOT

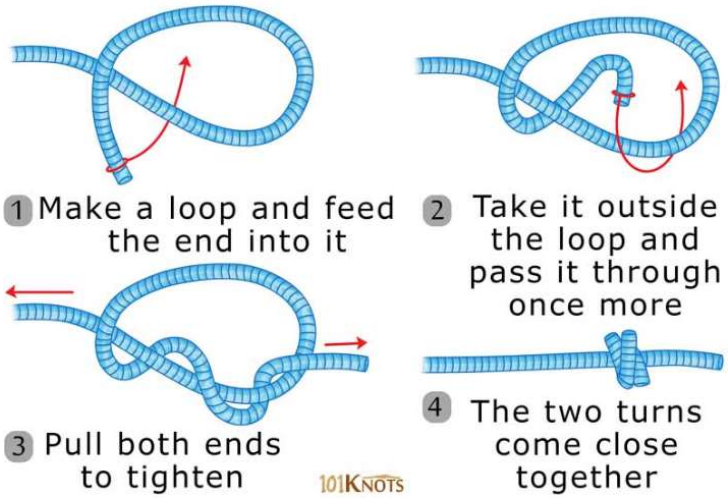
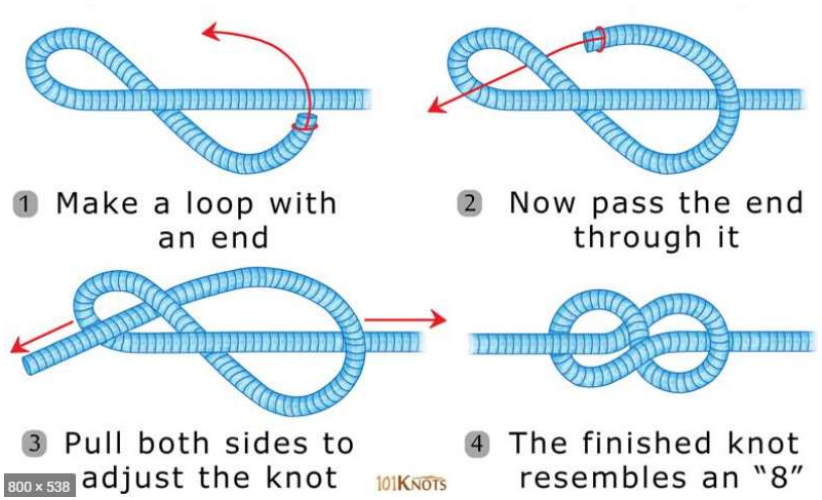
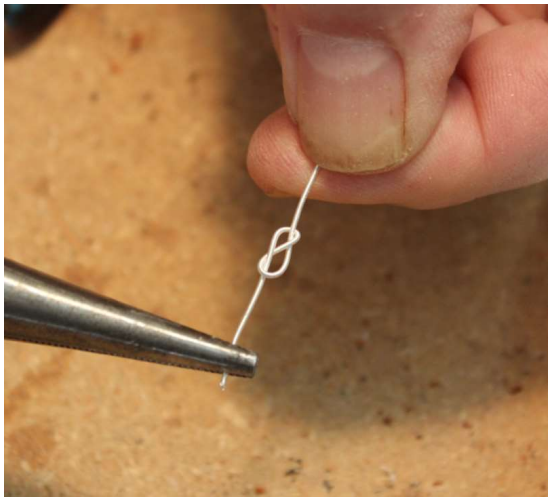


FIGURE 8 KNOT



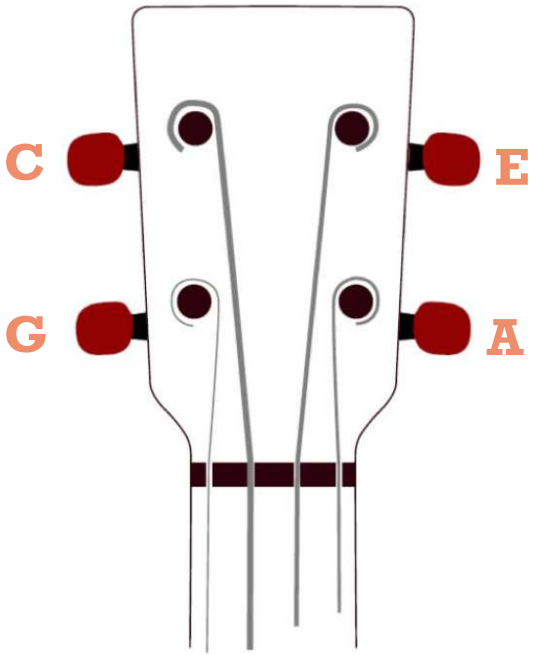


USING KNOTS

- Once the knot is tied slide it into place in the saddle

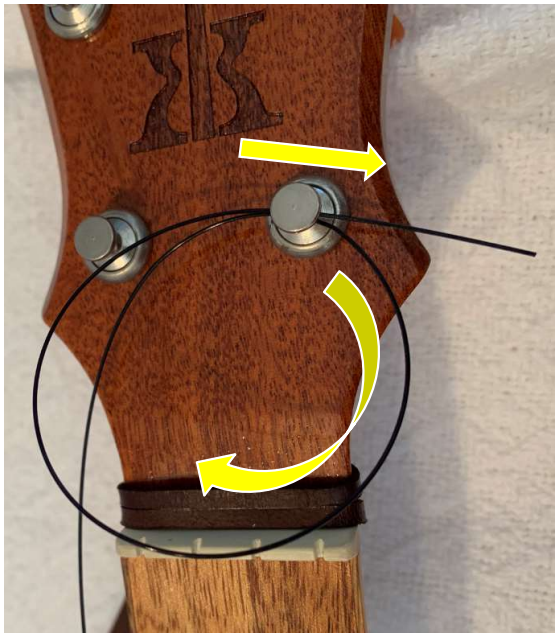
7 – INSTALLING THE "A" STRING

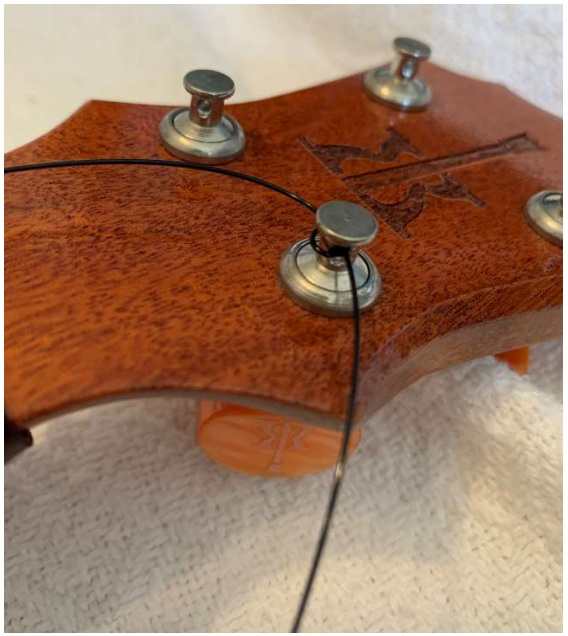
- Run the other end of the string up the neck and through the hole in the "A" string tuning peg
- Insert the string from the inside (middle) of the headstock, through the hole, towards the outside
- Pull the string most of the way through, but not so much that it's tight. It should still be loose and floppy

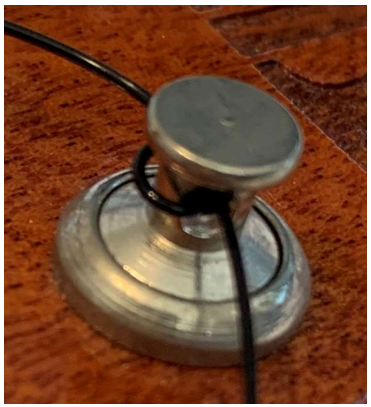


8 – INSTALLING THE "A" STRING

- Wrap the string ½ way around the peg and put the string back through the peg's hole again, pulling the string so it cinches down on the peg







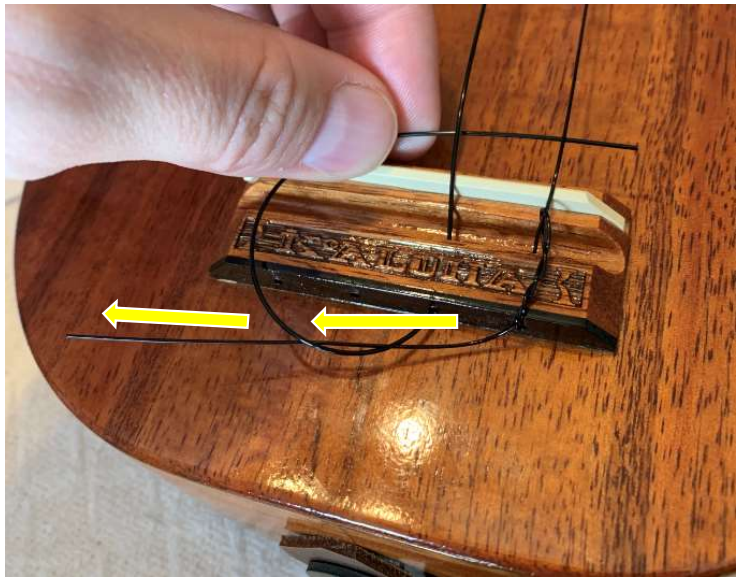
7 – INSTALLING THE "A" STRING

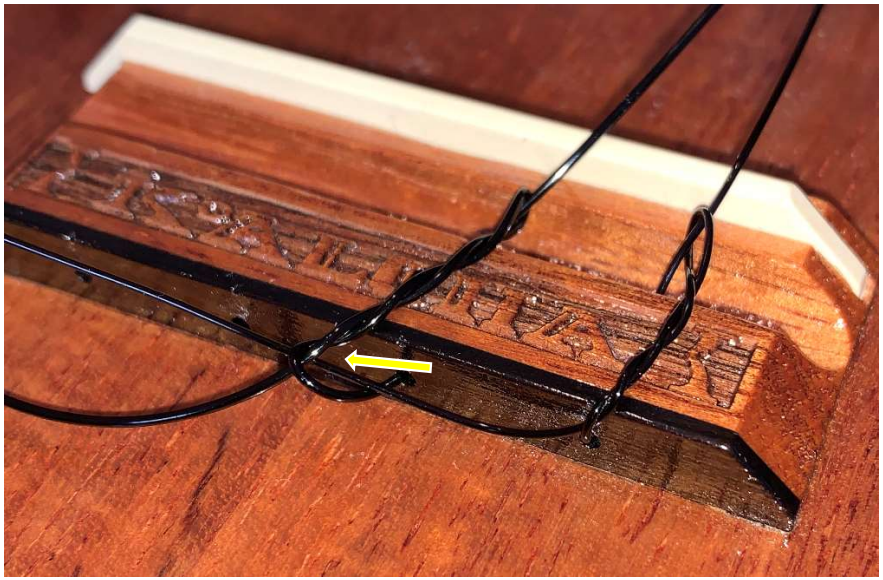
- Twist the peg 2-3 times to *very slightly* tighten the string so it stays in place while you install the other strings (no more than 1-2 turns)
  - Be sure to turn the peg in the correct direction
- Hold the string in the "A" string groove in the nut to help align the string
- Push string down to keep it from overlapping itself on the peg
- DO NOT TRIM THE STRING YET

INSTALLED “A” STRING

8 – INSTALLING THE "E" STRING

- Following the same steps, install the "E" string
- Take the tail from the "A" string and secure it under the "E" string's knot
- DO NOT TRIM THE STRING YET



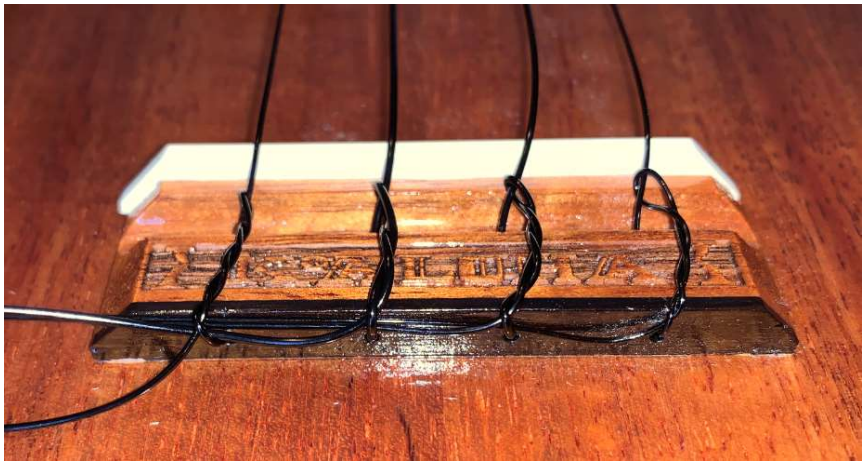


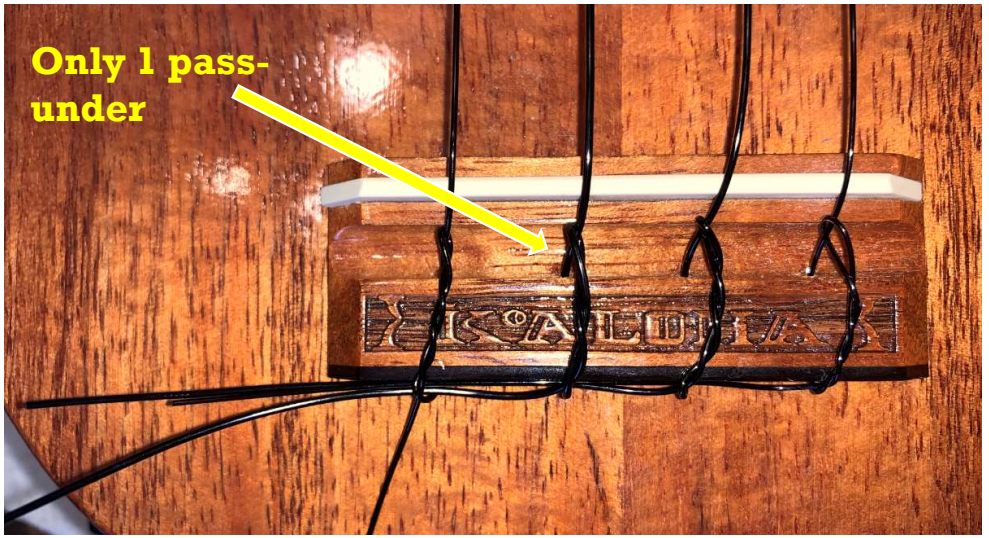
8 – INSTALLING THE "E" STRING

- Following the same steps, install the "E" string in its tuning peg
- DO NOT TRIM THE STRING YET

9.1 – INSTALLING THE "C" & "G" STRINGS

- Following the same steps, install the "C" string next, then the "G" string last
- Take the tails from the "A" & "E" strings and secure them under the new knots
- NOTE: the thicker "C" string and a "wound Low-G" string might only require 1 pass-under for the knot instead of 2 (which makes the knot too long)
- DO NOT TRIM THE STRINGS YET





Another view of the end result of the knots and tie-downs

You can also tie your strings down in the other direction if you wish.

You would reverse the string installation sequence starting with the "G" string.

9.2 – INSTALLING THE "C" & "G" STRINGS

- Following the same steps, install the "C" & "G" strings in their tuning pegs
- NOTE: the thicker "C" string and a "wound Low-G" string might not fit through its peg twice, which is ok. Just run it through the peg once.
- DO NOT TRIM THE STRINGS YET

10 – INITIAL TIGHTENING

- Starting with the "G" string, tighten it using its tuning peg 1-2 twists
- Then do the same with the "C" string
- Continue until each string has had 1-2 twists and are beginning to get taut
- Start over with the "G" string again
- *As you twist, make sure the string doesn't over-lap itself as it tightens on its peg*
- *You might need to hold the string in its groove in the nut for the first few twists*
- Continue around the headstock until each string is taut enough to ring, but not necessarily in tune
- *As the knots at the bridge cinch down, the string will seem to tighten then loosen*

11 – TRIM STRINGS

- Trim each string at the headstock 1cm from where it exits the tuning peg's hole
- Trim the string bundle at the bridge to 1cm beyond where it exists the "G" string's knot

11 – INITIAL TUNING

- Install your tuner
- Starting with G string, tune to G4 (or G3 with a low-G string)
- Tune the other strings: C4 E4 A4
- This will take a while!
  - Nylon strings will stretch *a lot* before staying in tune
  - The neck sways back and forth as the tension of the strings pull it
  - The knots will cinch down
- Cycle through the strings, re-tuning them until they are all *close to in tune*

12 – PLAYING AND RETUNING

- Once close to in-tune, strum your new strings fairly hard (up and down) then retune.
  - Do this several times, retuning in between plays
  - This will help stretch them out
- Don't
  - Pull on the strings to stretch them. This will create thin spots
  - Mash them into the frets. This will create flat spots

- You will have to retune between every song for the first 20 songs you play
- Eventually the strings will stabilize and you won't need to retune as often

VIDEOS

- There are a lot of videos online, some really good, some really bad
- https://www.youtube.com/watch?v=XfONxF00cIU
  - OK video if you need to tie knots
- https://www.youtube.com/watch?v=FmrISmF6O3I
  - Ok video, but tries to convince you to buy extraneous gadgets.

QUESTIONS?