

Thumb Position 3rds:

This fingering pattern, taken from my technique studies with Richard Aaron and Anthony Elliott, allows you to shift *without extending* or changing your hand position. To remember it, use the following:

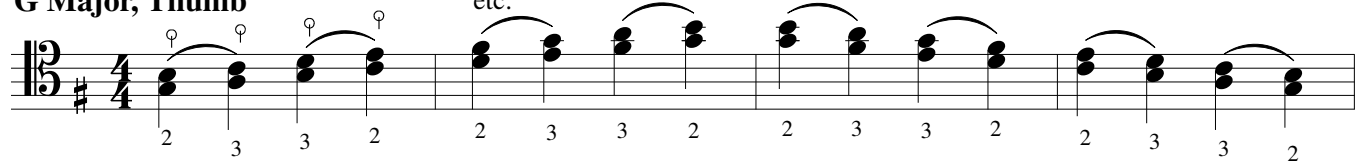
Major: 2332 2332

Harmonic Minor: 3323 2233

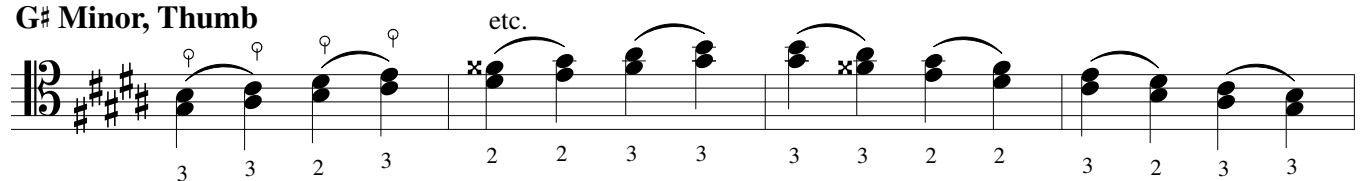
I practice at quarter = 60 with two notes to a bow, because it is a relaxing tempo that gives you time to plan each shift, while at the same time holding you accountable to a pulse. You can plan your shifts 1/8th note in advance, or for a more advanced study plan shifts 1/16th note in advance or the entire quarter note.

♩ = 60

G Major, Thumb



G# Minor, Thumb



1. Repeat the above exercises up one half-step, and continue the same pattern as high as you like.
2. Repeat starting on the D and G strings (C major, C# minor), and continue up in the same way.

Lower Position 3rds:

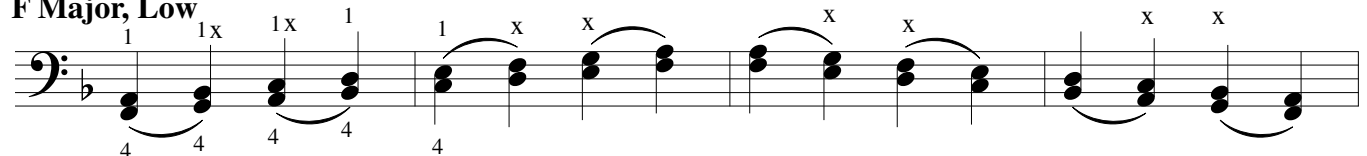
This fingering pattern alternates between a closed and extended hand. To remember it, use the following:

Major: CXXC CXXC

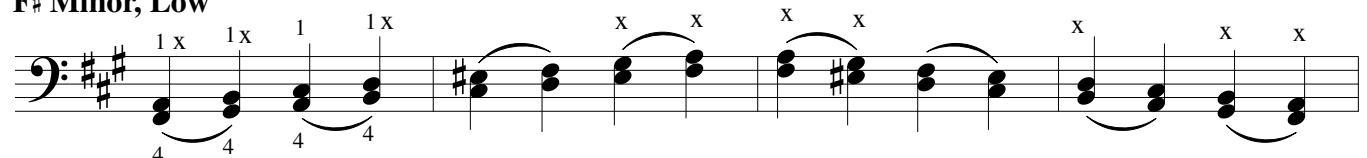
Harmonic Minor: XXCX CCXX

When you extend, keep the *thumb under the 2nd finger* and only extend from 1 to 2: 1 x 2 3 4.

F Major, Low



F# Minor, Low



1. Repeat the above exercises up one half-step, and continue the same pattern as high as you like, on each string.
2. Don't wear yourself out. Extension work is tiring, so take breaks, or come back tomorrow!

Patterns:

The following patterns can be used to introduce **larger shifts** into your 3rds routine. Keep the same fingering principle: Major 3rds use 2nd finger, and Minor 3rds use 3rd finger.

Thumb: Pattern 1 (Inchworm)

Four staves of musical notation for Thumb: Pattern 1 (Inchworm). Each staff begins with a treble clef, a key signature of one sharp (F#), and a 3/4 time signature. The notation consists of eighth notes with beamed stems, each accompanied by a pair of notes (a 3rd) connected by a slur. The intervals between the notes in the pairs are: Staff 1: G4-A4, A4-B4, B4-C5, C5-B4, B4-A4, A4-G4, G4-F#4, F#4-E4, E4-D4, D4-C4, C4-B3, B3-A3, A3-G3, G3-F#3, F#3-E3, E3-D3, D3-C3, C3-B2, B2-A2, A2-G2, G2-F#2, F#2-E2, E2-D2, D2-C2, C2-B1, B1-A1, A1-G1, G1-F#1, F#1-E1, E1-D1, D1-C1, C1-B0, B0-A0, A0-G0, G0-F#0, F#0-E0, E0-D0, D0-C0, C0-B-1, B-1-A-1, A-1-G-1, G-1-F#-1, F#-1-E-1, E-1-D-1, D-1-C-1, C-1-B-2, B-2-A-2, A-2-G-2, G-2-F#-2, F#-2-E-2, E-2-D-2, D-2-C-2, C-2-B-3, B-3-A-3, A-3-G-3, G-3-F#-3, F#-3-E-3, E-3-D-3, D-3-C-3, C-3-B-4, B-4-A-4, A-4-G-4, G-4-F#-4, F#-4-E-4, E-4-D-4, D-4-C-4, C-4-B-5, B-5-A-5, A-5-G-5, G-5-F#-5, F#-5-E-5, E-5-D-5, D-5-C-5, C-5-B-6, B-6-A-6, A-6-G-6, G-6-F#-6, F#-6-E-6, E-6-D-6, D-6-C-6, C-6-B-7, B-7-A-7, A-7-G-7, G-7-F#-7, F#-7-E-7, E-7-D-7, D-7-C-7, C-7-B-8, B-8-A-8, A-8-G-8, G-8-F#-8, F#-8-E-8, E-8-D-8, D-8-C-8, C-8-B-9, B-9-A-9, A-9-G-9, G-9-F#-9, F#-9-E-9, E-9-D-9, D-9-C-9, C-9-B-10, B-10-A-10, A-10-G-10, G-10-F#-10, F#-10-E-10, E-10-D-10, D-10-C-10, C-10-B-11, B-11-A-11, A-11-G-11, G-11-F#-11, F#-11-E-11, E-11-D-11, D-11-C-11, C-11-B-12, B-12-A-12, A-12-G-12, G-12-F#-12, F#-12-E-12, E-12-D-12, D-12-C-12, C-12-B-13, B-13-A-13, A-13-G-13, G-13-F#-13, F#-13-E-13, E-13-D-13, D-13-C-13, C-13-B-14, B-14-A-14, A-14-G-14, G-14-F#-14, F#-14-E-14, E-14-D-14, D-14-C-14, C-14-B-15, B-15-A-15, A-15-G-15, G-15-F#-15, F#-15-E-15, E-15-D-15, D-15-C-15, C-15-B-16, B-16-A-16, A-16-G-16, G-16-F#-16, F#-16-E-16, E-16-D-16, D-16-C-16, C-16-B-17, B-17-A-17, A-17-G-17, G-17-F#-17, F#-17-E-17, E-17-D-17, D-17-C-17, C-17-B-18, B-18-A-18, A-18-G-18, G-18-F#-18, F#-18-E-18, E-18-D-18, D-18-C-18, C-18-B-19, B-19-A-19, A-19-G-19, G-19-F#-19, F#-19-E-19, E-19-D-19, D-19-C-19, C-19-B-20, B-20-A-20, A-20-G-20, G-20-F#-20, F#-20-E-20, E-20-D-20, D-20-C-20, C-20-B-21, B-21-A-21, A-21-G-21, G-21-F#-21, F#-21-E-21, E-21-D-21, D-21-C-21, C-21-B-22, B-22-A-22, A-22-G-22, G-22-F#-22, F#-22-E-22, E-22-D-22, D-22-C-22, C-22-B-23, B-23-A-23, A-23-G-23, G-23-F#-23, 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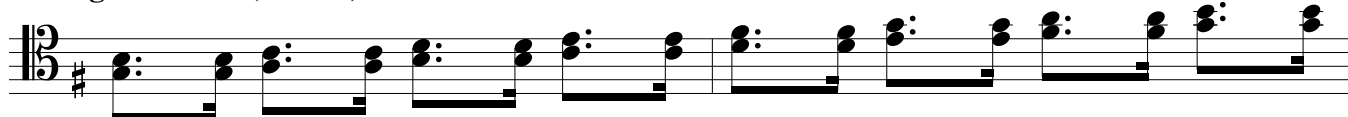
Bowing Patterns:

Mix up your practice routine by trying different bowing patterns in your 3rds practice. These patterns require you to shift much later than you might in the original exercise. Plan your left-hand accordingly: Where is the destination for your elbow? Your thumb? How much will you close your hand?

Bowing Pattern 1 (Triplets)



Bowing Pattern 2 (Dotted)



1. What other patterns can you use? Draw from your current repertoire.

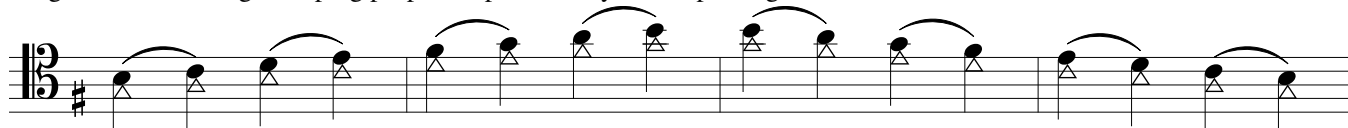
Intonation work:

There are two main elements to good intonation: **accurate shifting** and **proper hand shape**.

Focus on those two concepts as you break down 3rds into the following exercises. Do not disguise your intonation with vibrato!

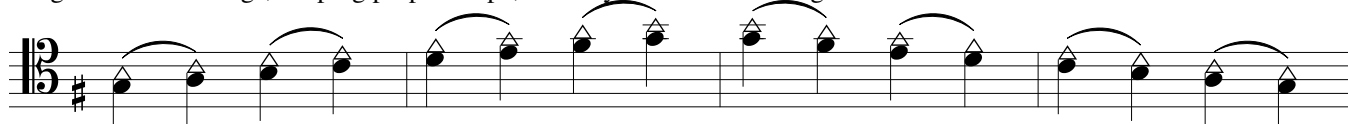
Intonation: Top String

Fingers on both strings, keeping proper shape, but only bow top string



Intonation: Bottom String

Fingers on both strings, keeping proper shape, but only bow bottom string



Intonation: Rocking Strings

Keep same fingering, but tune each string individually, then play together. Maintain tempo.

