Get In the Loop

An Introduction to Instrumental Live-Looping

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WHY LOOP?
1. Practice – improve rhythm, learn all the parts of a song (bass line, inner voices, countermelody, groove), improvisation
2. Teaching – rehearsing scales or melodic lines with students, call and response, creating a rhythmic backdrop to facilitate ensemble playing
3. Performance/creativity/expression – saves cost of additional band members, allows you to dictate the direction of the music.

TERMS
- STOMP IN = press the footswitch to start recording
- STOMP OUT = press the footswitch to stop recording
- LOOPER = any looping device that allows live, on-the-go recording and playback
- SUBDIVISION = the smaller part of a larger note. The parts are equal in length and allow a musician to properly fill the space of a long note by counting the smaller parts aloud or in her/his head.

5 Essential Live Looping Tips **by Barry Cleveland**
https://reverb.com/news/5-essential-live-looping-tips
> *"Until you are entirely comfortable creating loops, the easiest way to ensure that you have clean loop points is to count along as you play, so that you know precisely where the downbeat or "1" of each measure is. Then, press the record footswitch exactly on the 1 of the first measure you want to loop, and press the footswitch used to close the loop on the 1 of what would be the following measure were it to be included."*

No. 1: *PRECISELY*

Playing Preparation:
1. In steady, even beats, count aloud the rhythm below the notes (lyrics included)
2. Get ready to play while counting
3. When the repeat arrives:
    1. STOMP IN the pedal on Beat 1
    2. Begin playing at the same time
    3. KEEP COUNTING IN YOUR HEAD (or aloud) the eighth note subdivisions
4. When the Beat 1 repeat returns, STOMP OUT the pedal and stop playing. Congratulations! You've captured your first loop and should hear it play back.
5. CAUTION: Your looper might still be recording (look for an indicator light – usually red and/or blinking). Be sure you are no longer recording before making more sound.

EVALUATE! STOP and listen to assess if the loop is steady. There should be no hiccup in the rhythm. It should sound as if the player continued to play the line live.

No. 2: *VOICES IN MY HEAD*

**Repeat the Playing Preparation from No. 1: Precisely

EVALUATE! Now there is more space (longer notes) to fill, and timing and steadiness can become trickier. Subdivision in vital to filling this space.

No. 3: *LONG TIME*

Longer notes require greater attention to timing. BE SURE TO COUNT the eighth note subdivisions while playing the half notes. The B-Loop eighth notes will allow you to check your work and see how steadily you played the A-Loop.

**Repeat the playing preparation steps from No. 1.

No. 4: *GET BACK*

Looping arrangements gain interest by adding rhythmic variation to the chords. This exercise will introduce the creation of "back-beats" that can add a certain groove to a tune. Back-beats are common in reggae music (which often has a looped chord progression!).

**Repeat your playing preparation steps from exercise 2. Practice creating loops with parts A & B and then A & C.

If Numbers 1 to 4 sound steady when looped, continue on to the next exercise.
**Continue to review these foundations - a steady beat and the coordination of counting, stomping, and playing are absolutely necessary to building further (wickedly cool) loops.

CREATING A LOOP FROM SCRATCH: *STEPS 1 & 2 - Lay Down the Foundation*

Lay down a rhythmic foundation that has sufficient subdivisions. This should be the longest loop of the song.

1. A **Bass Line** does not have to be complicated (see more later regarding "arranging"). Consider steady quarter notes.
2. A **Harmonic Progression** is a series of chords - all pop music has a progression, and many of those progressions repeat over-and-over for the entire song (see the list enclosed). Coldplay's famous *Viva La Vida* and the world-wide phenomenon, *Despacito* are both comprised of just four chords that take about 8 to 12 seconds to play...repeated for the rest of the song.

There are no steadfast rules - any three to four notes can create a nice bass line for your progression – but some sound more common than others. *Viva La Vida* can be played: D - E - A - F#

Below is a bass line and two long-tone loops to create the harmonic progression:

    I - vi - IV - V (G - e - C - D) in G Major

**Remember the playing preparation steps from exercise 2.

A BIT MORE ON HARMONIC PROGRESSIONS: In addition to (or instead of) playing long tones (B & C above), consider:

1. Rhythmic variations or back-beats (No. 4: *Get Back*)
2. Adding effects (reverb, delay, chorus, octave, etc.) or altering techniques (pizzicato, staccato, buzzing, etc.) for a different timbre or length
3. Build the harmonies one note at a time unless able to play chords well in tune (guitar, keys, strings)

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MORE IDEAS FOR COMMON CHORD PROGRESSIONS

*Inspiration can often be found just by laying down a harmonic progression and seeing what melodic ideas arise. Roman numeral chord **I** is always the name of the key.*

Common Chord Progressions

Major Keys: C, D, F, G & A

I	IV	V
C	F	G
D	G	A
F	Bb	C
G	C	D
A	D	E

I	vi	IV	V
C	Am	F	G
D	Bm	G	A
F	Dm	Bb	C
G	Em	C	D
A	F#m	D	E

ii	V	I
Dm7	G7	Cmaj7
Em7	A7	Dmaj7
Gm7	C7	Fmaj7
Am7	D7	Gmaj7
Bm7	E7	Amaj7

I	vi	ii	V
C	Am	Dm	G
D	Bm	Em	A
F	Dm	Gm	C
G	Em	Am	D
A	F#m	Bm	E

I	V	vi	IV
C	G	Am	F
D	A	Bm	G
F	C	Dm	Bb
G	D	Em	C
A	E	F#m	D

I	IV	vi	V
C	F	Am	G
D	G	Bm	A
F	Bb	Dm	C
G	C	Em	D
A	D	F#m	E

I	iii	IV	V
C	Em	F	G
D	F#m	G	A
F	Am	Bb	C
G	Bm	C	D
A	C#m	D	E

I	IV	I	V
C	F	C	G
D	G	D	A
F	Bb	F	C
G	C	G	D
A	D	A	E

I	IV	ii	V
C	F	Dm	G
D	G	Em	A
F	Bb	Gm	C
G	C	Am	D
A	D	Bm	E

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CREATING A LOOP FROM SCRATCH: *STEP 3 – Play the Melody*
If covering a song, the challenge is to figure out the melody on your instrument. Consider learning and memorizing the melody from published sheet music.

If creating your own loop from scratch, some ideas for melody creation are:
1. Use small, pre-formed ideas (like scales in the key)
2. Repeat yourself (could be a rhythm, bending one pitch, or changing octaves)
3. Create space through "white" notes (half notes, etc.) or silence (rests)
4. Quote other tunes (Ode to Joy, Yankee Doodle, Baby Shark, etc.)
5. Slide into pitches to create a different mood

Sample melody (cover of Ode to Joy with potential to loop) for Step 1-2 loops:

Sample melody (original) that uses simple motion and altered rhythmic patterns:

CREATING A LOOP FROM SCRATCH: *STEP 4 – Create Additional Fills or Solos*
If using a multi-pedal looper, this can also be done before starting the melody, and those fills can be subtracted and added throughout the performance. Additional fills are limited to your imagination – and remembering the overall feel of the arrangement. Consider recording a chorus and then play over it with a verse – often done in musicals!

THINK LIKE A MIXING ENGINEER (from *5 Essential Live Looping Tips*)
> *"Whether layering sounds on a single loop, or using a looper with multiple tracks, conceptualize what you are doing sonically as well as musically. Craft your loops bearing the end result in mind. For example, if you've laid down a fat bass line, it will probably be wise not to add another part that occupies the same frequency range, so as to avoid clashes and muddiness. Similarly, if you've played some rhythm chords with a bright sound, adding a melody line using a similar sound that occupies that same frequency range will almost certainly conflict with the chords, whereas using a darker or otherwise different sound will make the melody more distinct. Think holistically.*
>
> *"Effects also may help sounds fit together better in the blend. Reverb can make one part sound farther away than another, and modulation often can help differentiate a sound from others."*

CAUTIONS and OTHER THOUGHTS:
1. Each "instrument" or voice also adds volume.
2. Silence and rests are equally important to sound and notes.
3. Write it down! By making notes of the arrangement, it can often lead to visualizing improvements and additions.
4. If covering a song, be creative! Consider arranging in a different style – hip-hop progressions and "melodies" often set up a really strong foundation over which to improvise a solo.
5. Remember your friends! Just because you are "goin' solo," remember to have others listen and evaluate the performance. It is often difficult for the performer to gauge volume and balance because the natural instrument tends to sound louder to the player.

CREATING A LOOP FROM SCRATCH: *STEP 5 – Exit Strategies*

Often a looped progression does not have a finality to it, much like video game music. Here are some ideas, depending on your looper capability
1. Fade out and hold the last note (consider a volume pedal if your looper does not fade out)
2. Gradually subtract your loops and end by playing the opening line
3. End suddenly – this works well on the dominant (V) chord

HAVE AN ESCAPE PLAN (from *5 Essential Live Looping Tips*)
> *"No matter how adept you become at the art of live looping, it is only a matter of time before things go horribly awry — and how you deal with those situations can make or break a performance. Sometimes you can back out of a mistake using undo, but other times you need to stop and begin again and occasionally things go into meltdown. You need to be able to deal with this gracefully, whether by having a volume pedal after your looper, a readily accessible master volume knob on your amp or mixer, or even a dedicated kill switch for just such emergencies. Be prepared!"*

A Small List of Tunes that Loop*

*some dissonances exist with the melody vs. harmonic progression, but still can work as a looped song.
Consider weighing into the dissonance and create tension & release.

All Along the Watchtower (Hendrix)	In Dreams (Fleetwood Mac)	Stay with Me (Sam Smith)
All of Me (John Legend)*	La Bamba	Sugar (Maroon 5)
Baby If It's Meant to Be (Rexha)	Last Kiss (Where Can My Baby Be)	Too Good at Goodbyes (Sam Smith)
Believer (Imagine Dragons)	Lean on Me	Twist and Shout
Bittersweet Symphony	Our Song (T. Swift)	Viva La Vida (Coldplay)
Cake by the Ocean (DNCE)	Old Town Road (Lil Nas X)	Waiting On the World to Change (John Mayer)
Champagne Supernova (Oasis)	Pachelbel's Canon	Wake Me Up (Avicii)
Clocks (Coldplay)	Pompeii (Bastille)	What About Us (Pink)
Counting Stars (One Republic)	Radioactive (Imagine Dragons)	What I Like About You (Romantics)
Despacito (Luis Fonzi)	Say Something (Great Big World)	When You're Talking In Your Sleep* (The Romantics)
Englishman In New York (Sting)	Say You Won't Let Go (Arthur)	Why You Gotta Be So Rude (Magic)
Free Falling (Tom Petty)	Secrets (One Republic)	Wicked Games (Chris Isaak)
Gangster's Paradise (Coolio)	Shape of You (Sheeran)	With or Without You (U2)
Happier (Marshmello)	Smells Like Teen Spirit (Nirvana)	Zombie (Cranberries)
Happier (Sheeran)	Somebody That Used to Know (Gotye)	7 Rings (Arianna Grande)
Havana (Cabella)	Something Just Like This (Chainsmokers/Coldplay)	
Heart and Soul	Stand By Me (Ben E. King)	
House of the Rising Sun (Animals)		

Playing Tunes that Nearly Loop

Many songs are in an A/B Form of short looped harmonic progressions (Perfect by Ed Sheeran or Take Five by Dave Brubeck), or they have some sort of short intermittent cadence/progression that breaks the loop briefly (Seven Nation Army by Jack White).

Options to work around it:
1. Record the new B-section in another loop pedal
2. Play the intermittent part as a solo with the loop stopped
3. Omit the intermittent part

Artists that Loop Often: Coldplay, Imagine Dragons, Ed Sheeran, Sam Smith.
We all know Pachelbel's Canon. Telemann also composed a series of Canonic Sonatas designed as a duet that could instead be looped as a soloist, depending on your looper.

DON'T FORESAKE THE MUSE (from *5 Essential Live Looping Tips*)

"…loopists sometimes get so carried away with clever tricks and techniques that the sounds they make become more about dazzling their peers (or even themselves) than connecting with an audience on an emotional level. The single most important tip anyone can offer aspiring loopists is to sincerely strive to make the most genuine and compelling music possible.

"Above all else: never leave music out of the loop!"

THE STUFF YOU MIGHT NEED
Considerations: Price, Portability, & Capability

Pedal Loopers:
1. Roland: Boss RC-3 ($100), RC-30 ($300), or RC-300 ($550) Loop Station
2. Digitech JamMan ($250)
3. TC Electronic Ditto Looper ($120)
**Power cords are often sold separately

Simple appearance isn't necessarily simpler. Loopers with 2 pedals allow for dedicated start and stop. "Simple" single switch loopers can require a single tap to start and/or to overdub, and a double tap to stop (all in perfect timing, of course.) This tap dancing can make it difficult to properly close or sync a loop.

Software, iOS, or Android Loopers:
Looping with a smart device or computer/laptop is commonly done with use of your hands to start and stop the loop. External pedals can be synced with some devices to allow for foot operation.

Software & Standalone Apps	**Web/Cloud-Based**
1. Abelton Live (software)	1. Soundtrap
2. Garage Band (Mac)	2. Audiotool
3. Music Maker Jam (Android)	3. Soundation
4. Bandlab (Android)	
5. Walkband (Android)	

> **KNOW THY LOOPER!** (from *5 Essential Live Looping Tips*)
> *"Even the simplest loopers usually enable you to do more than just record a loop and play it back. Most provide an undo function in addition to overdubbing capabilities, allowing you to erase your last overdub. **Other functions commonly found on loopers are:** reverse (which plays the loop backward), and half speed (which lowers the pitch an octave and doubles the playback time)."*

Effects Pedals:
1. Effects to consider: reverb, chorus, delay, octave (8va or 8vb), distortion
2. For treble instruments to create low bass lines: Boss OC-3 Super Octave Pedal
3. Multi-Effects Pedal: Boss ME-80, Boss GT-1

Cables & Connections:
Capturing the Instrument Sound:

1. Microphone – better for wind instruments. Cardioid directional mics are best to avoid capturing other sounds of your loop playback. Omni-directional vocal mics are not recommended. The Shure SM-57 is the most recommended. A microphone stand is necessary as well.
2. Electronic Pickup – some versions are permanently installed, and some are removable. Common quality brands are: LR Baggs, Fishman, Barcus Berry, and The Realist
3. Easiest (not the best sound; good for entry into looping):
    a. mic clip pick-up or lapel microphone
    b. the microphone on the device (while using headphones)
4. Direct Input (DI) box – the instrument plugs first into this, and then on to the pedal. Though not always 100% necessary, a DI improves and boosts the instrument signal and improves the sound. Better quality DIs also have knobs to adjust and improve tone. Fishman and LR Baggs are among the top quality brands.

Cables & Cords: err on the long side – too much cable doesn't hurt

1. Instrument to DI - 10 ft instrument cable (angled or straight jack)
2. DI to pedal – 3 to 6 ft instrument cable
3. Pedal to pedal - 6-in to 3-ft- there are also kits that easily allow you to make your own pedal connectors cables.
4. Pedals to speaker - speaker cable (not instrument cable) is best – 20 to 25 ft or more
5. XLR microphone cable(s) – dependent on need
6. XLR speaker cable(s) – dependent on need
7. Extension cords - it all runs on electricity! A 40 ft and 15 ft three-prong outdoor-grade electric extension cord will ensure the ability to reach most outlets (if performing publicly).
8. Power Strip – be sure it has surge protection.

Amplification/Speakers (called "PA"):

1. Powered Speakers - these are speakers that you plug into an electrical outlet (different from what you might have coming out of a surround sound system or stereo receiver).
    Small Powered Amps: good for coffee shops, street performance, cafes, etc.
        a. Roland AC-60 Acoustic Chorus Guitar Amp
        b. Fishman Loudbox Performer 2-Channel 120-Watt Acoustic Guitar Combo Amp
    Large Powered Speakers: Mackie, QSC, JBL, and Yamaha are all quality brands that offer a wide array of powered speakers for large venues (500- to 1000-watt speakers)
2. Speaker poles: consider a pole if you will stand while performing. This can allow the speaker to be near your ears (you have to hear the loop!) while keeping overall volume lower.
3. Monitors: while not necessary (and potentially pricey), this is a must if performing in a really large space with speakers far away. "In-ear" versions mean less to haul around (but can be pricey), or a floor monitor (speaker pointed at performer) works well.

Connecting Pedals to Speaker(s):
1. Easiest (especially if just one instrument or input): plug the pedal board output straight into the speaker
2. Best control for multiple inputs/instruments: use a sound board mixer that allows individual tone shaping and volume control for each input (violin, vocal mic, guitar, keyboard, drum sampler, etc.)

What Else:
1. Storage: Gator and SKB make an assortment of cases. Also consider discarded computer laptop bags often found in thrift stores.
2. Transport: depending on how much gear is acquired:
   a. two-wheel foldable dolly with collapsible handle works well for small operations
   b. four-wheel cart works well for hauling two or more speakers
3. Table-tops & Stands: depending on how many mics and/or instruments are incorporated into the loop station performance, seek portable/foldable light-weight tables and instrument stands that are sturdy enough to safely hold your gear in potential heavy wind.
4. Signage: looping is really cool – and the skill and challenge is often underestimated. Create a sign that explains what's happening:
   "LIVE LOOPING! Nothing is pre-recorded. During each performance, music is recorded in small "loops" and then played back to create the arrangement you hear."