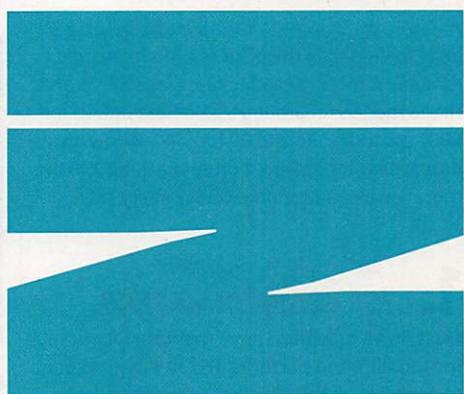


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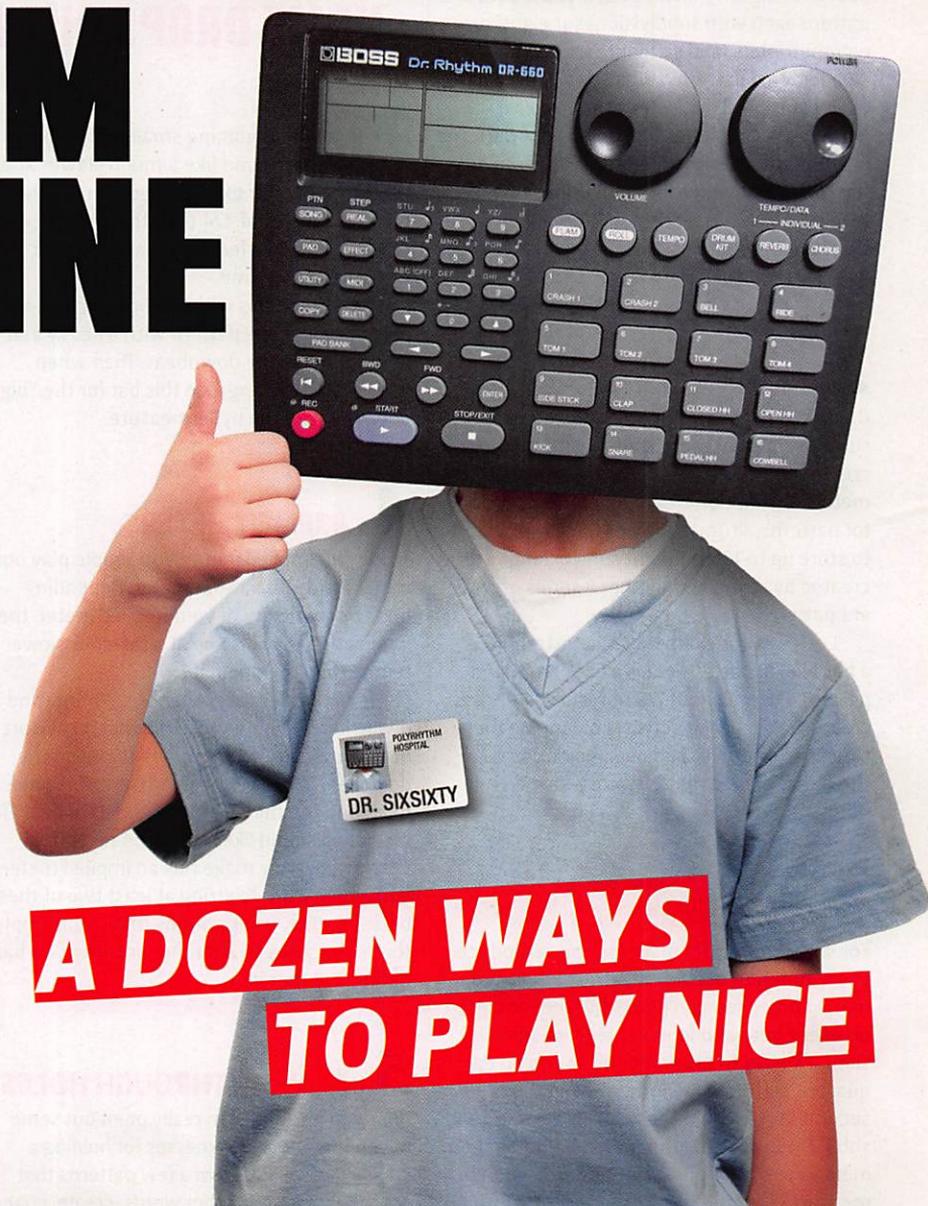
# MAKING FRIENDS WITH A DRUM MACHINE



By Norman Weinberg

**W**e've all worked with a metronome. I don't know about yours, but my metronome has a nasty habit of slowing down or speeding up no matter how perfectly I play! However, learning how to play with one of these infernal mechanical timekeepers is not only a good idea for helping to control your sense of time, it's an absolute necessity for any professional musician. Just a couple of years ago, a high-quality metronome would set you back a pretty penny. Now that there are so many apps for smart phones, it's possible to carry a number of outstanding metronomic tools right in your pocket. While apps are cheap, I haven't yet found a single metronome app that can do everything you can do with a drum machine (the perfect metronome). Not only can a drum machine serve as your mechanical slave driver, it can also make working on your time and timing so much more productive and fun.

Since many folks who used drum machines on a regular basis have switched over to software, you can find great machines on



**A DOZEN WAYS TO PLAY NICE**

# PLUGGED IN

eBay for less than the price of a moderate metronome. A recent search found Alesis SR-16 and HR-16 models for around \$50, a Boss DR660 for \$80, and a killer Roland R8 for \$140. Below are a dozen ideas for making a drum machine into the most flexible metronome you've ever seen.

## 1. LESS COMMON METERS

Most drum machines have memory locations for 100 different patterns. It's an easy project to program all the different time signatures you want. Each pattern can be its own time signature and each time signature can have its own series of subdivisions.

For example, you can create a measure of 4/4 using a strong sound for each downbeat, a different sound for each quarter, and a third sound for eighth-notes. Even if you create one pattern each with subdivisions for eighths, eighth-triplets, and sixteenths, you'll still have 97 additional patterns. While this particular example is pretty easy for even the least-expensive smart-phone app, how about patterns in 7/8? You can easily create a number of different 7/8 bars with the subdivisions of 2+2+3, 2+3+2, and 3+2+2. A normal 12/8 bar has several different feels: 6+6, 4+4+4, 3+3+3+3, 2+2+2+2+2+2, to name a few.

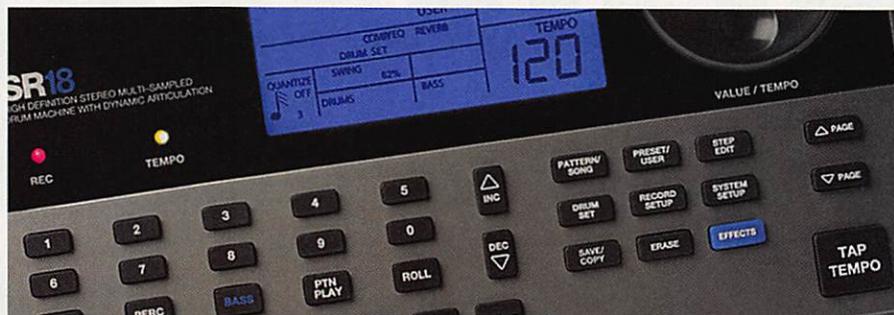
## 2. MIXED METERS

Once you've got a large collection of measures in different meters, it's a simple step to create songs, exercises, or etudes that switch meters. In addition to 100 different locations for patterns, drum machines have the ability to store up to 100 different songs. Songs are created by stringing together a series of different patterns.

Let's say, for example, that pattern #6 is a bar of 6/8; pattern #12 is a bar of 4/4; and pattern #16 is a bar of 7/8 phrased 3+2+2. By creating a song that consists of looping these three patterns over and over, you'll create a three-bar phrase that is twenty-one eighth-notes long.

## 3. HYPERMEASURES

For sure, your drum machine can reproduce every function of even the most advanced metronome. You can place different sounds on every beat and at every level of subdivision. It's easy to program one sound on each quarter, eighth, sixteenth, or even thirty-second-note. While these big beats and subdivisions are helpful, they won't help you in hearing bigger phrases. The term "hyper-measure" is sometimes used for the musical



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technique of combining smaller measures together that sound like a much slower and longer meter. For example, you might find three measures of 4/4 time that together make the groove feel like a much slower measure of 3/4 time.

You can do this with a drum machine by programming one pattern with a heavy and long sound on the downbeat. Then when you create the song, use this bar for the “big downbeat” of the hypermeasure.

## 4. IMPLIED METERS

To play an implied meter, you simply play one meter inside of another meter. Depending on the complexity of your implied meter, the implication may also be at a faster or slower tempo than the original.

For example, take a bar of 12/8 time and divide it into eighth-notes so that it has sort of a blues feel. Then program a note on the downbeat, the second eighth of the second beat, and the third eighth of the third beat. The result will sound like a large 3:4 rhythm.

Now, to truly make this an implied meter, you would want to string at least two of these bars together, using sounds that would imply three measures of 2/4 time for every two bars of the 12/8 meter.

## 5. PLAYING THROUGH HOLES

Here's an idea that can really point out some of your potential weaknesses for holding a steady groove. Program a few patterns that are totally silent. In other words, create a bar of

2/4 that doesn't have any events so that when you play that particular pattern, you won't hear anything. Once you've done that, create a song that is three bars of 4/4 followed by one bar of 2/4, followed by this silent 2/4 bar. The result is a four-bar phrase where the metronome drops out for the last two beats. By playing against this sequence, you'll easily be able to hear if you're rushing or dragging when the metronome drops out and then re-enters.

Once you gain confidence with playing over the gap of silence, you can start to increase the length of time that the click disappears. I suggest increasing the size of the gap by two beats at a time, until you finally can play four bars when only giving yourself the first two quarter-notes of the phrase.

## 6. PLAYING GROOVES

With a drum machine, it's easy to set up authentic rhythmic patterns in a large variety of musical styles. Since your drum machine will contain sounds for congas, bongos, shakers, agogo bells, etc., you can create patterns that are phrases of samba, bossa nova, rumba, mambo, son, guaguango, songo, and more. The list is only limited by your knowledge and research of various musical styles. Once your groove is programmed you can practice playing grooves on top of these rhythms.

## 7. PLAYING SOLOS

This is really a no-brainer. Once you've created your grooves, it's time to start soloing over the top. You can practice extended solos or

perhaps trade twos, fours, and eights between solos and grooves.

### 8. POLYRHYTHMS

Some polyrhythms are pretty easy to program. To hear how a 3:2 rhythm sounds, program a measure of 6/8 with one sound happening every two eighth-notes, and a different sound happening every three eighth-notes. By listening to how this rhythm "should" sound, it will be easier for you to play it.

Other polyrhythms are not only more complex to play, they are more complex to program. To hear the rhythm of 4:5, program one measure of 5/4 time. Place one sound on each quarter-note and a different sound on every fifth sixteenth-note. The polyrhythm of 6:7 can also be programmed on most drum machines. Create a pattern of 7/4 and, again, place one sound on each quarter-note. The second sound should be programmed on every seventh sixteenth-note triplet.

Even more complex polyrhythms are possible, but they might take a little time and effort to program. For example, if you want to hear the rhythm of 11:9, you'll need to create a song that has a total of 99 divisions. You can do this several different ways, but one solution might be to program 11 different measures of 9/8 time. Over the course of the 11 measures, you'll want to have one sound on each down-beat of the bar, and a different sound on every 11th eighth-note. When programming patterns that are this complex, it might be helpful to make a little chart showing what the rhythms would be in each pattern.

### 9. SPEEDING UP AND SLOWING DOWN

While the most common use of a drum machine is to help us hold a steady pulse, one of the other common features is the ability to program tempo changes within a song. Using this feature, it's possible to arrange a series of songs that focus your attention on building stronger chops. Let's say you want to build up your speed of double paradiddles. Create a song that repeats a series of measures in 3/4 and program the song to speed up by 20 bpm over the course of 32 bars. If you want to make the exercise complete, you can then program the next 32 bars to bring the tempos back down to the original speed. Then, whenever you want to practice this exercise, simply call up the song and press "play." When you feel that a 20-bpm change no longer pushes you hard enough, you can either increase the rate of change or start the entire song at a faster tempo.

If you're worried that practicing speeding up and slowing down is going to compromise your



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ability to hold a steady beat, you may (depending on the features of your machine) be able to increase or decrease the tempo in "stair-steps" rather than a constant change. Program eight measures at a steady tempo and then have the song increase in tempo by one or two bpm. Program another eight bars at this new tempo and program another tempo change. At that point, it's just "lather, rinse, repeat."

### 10. SPARKING THE CREATIVE MIND

Here's something that's really fun. Set up a two-bar phrase in 4/4 time, and set the quantize level to sixteenths. Now, turn the master volume down to zero so you can't hear the metronome or the sound of the instruments. Throw that baby into real-time-record mode and play whatever you want.

Since you won't be able to hear what you're doing, you won't be inclined to play rhythms that are commonplace. In fact, you're likely to be very surprised by what comes out of the machine once you turn the volume back up. Whenever I do this, I like to create 10–20 different patterns before I give any of them a listen. Sometimes, the resulting patterns are useless, sometimes they are way cool, and sometimes they need an extra note or two to help set and confirm the groove. But it's always interesting and a fun game that opens up my mind to new ideas.

### 11. BOOK LEARNIN'

If your music-reading skills are very strong, you might not find this useful. But those

who might need some help interpreting and applying what they see on the printed page to what they play on the kit can benefit by programming entire beats into their machines. Once you program written rhythms into a drum machine, you can hear how they should sound, and play them back at a very slow tempo if necessary.

### 12. SOUND DESIGN

All drum machines come with a large variety of sounds. Some have bass and synth sounds in addition to drums. Tweaking your sounds is something that a normal metronome just won't let you do. With most drum machines, you can adjust the pitch, the envelope (attack, sustain, decay), the filters, and even more parameters of the sound. You might also be able to adjust a number of audio effects such as reverb, echoes, distortion, etc. By experimenting with these controls, you'll gain a more thorough knowledge of how electronic instruments operate and you can transfer that knowledge back to your acoustic drumming. At the very least, it will help you realize that your instruments are capable of producing more than one stagnant sound.

Now that you've got some ideas on how you might repurpose a drum machine to become an amazingly useful tool, think about some other ways you might be able to improve your relationship with a metronome or drum machine. After all, you want your musical colleagues to give you top marks in the box that says "plays well with others." ▣