

**Tiptop Z-DSP
Signal Processor**
£399

1

**Koma Elektronik
Field Kit**
€229

2

Drones

There are numerous ways of creating and shaping drones. Here we've gathered together a bunch of gear that would find good use in any drone-builder's armoury. We predominantly focus on ways of creating sustained audio from more transient notes, but also look at a few generation and processing tools to keep you busy.

**Gamechanger
Audio PLUS Pedal**
£299

3





4 Vermona twinVCFfilter £362

1 The Z-DSP is an open-source DSP system that integrates with a Eurorack modular environment. It features two channels of 15kHz, 24-bit audio processing with voltage control over parameters and various parts of the audio path.

However, without creating your own programs or buying a pre-programmed cartridge, it does very little. Luckily, TipTop have created a bunch of cartridges covering granular synthesis, physical modelling, pitchshifting, chorus and delay. My favourites though are the two made by Valhalla DSP: 'Shimmer' and 'Halls Of Valhalla'. massive and brilliant.

www.tiptopaudio.com

VERDICT 8.8

2 Adding non-musical elements to drones is the perfect way to add movement and interest. Radio is one source of such material, especially when trawling the Shortwave spectrum.

Conveniently, Koma have recently put together the Field Kit, bringing together a CV-controlled radio alongside a bunch of modules for experimenting with electroacoustic sound. This provides a perfect use for contact mics and electromagnetic pickups, as well as motors, solenoids and sensors. The optional Field Kit Expansion pack provides you with various devices ready-wired for use with the kit, and the manual has a wealth of sonic ideas.

www.koma-elektronik.com

VERDICT 9.0

3 First seen at NAMM this year, and initially coming to market in a crowd-funded campaign, the PLUS pedal is neither a delay or conventional looper pedal. Looking much like a fancy piano pedal with knobs on, it uses sampling and some neat algorithms to 'catch' parts

of a note or chord. However it goes further than being a simple sustain tool, as up to five layers can be combined at once, with plenty of control over fade-in and fade-out times. It's not cheap, and benefits from additional ambient processing, but a great tool nonetheless.

www.pluspedal.com

VERDICT 8.9

4 I great way to add complexity to drones is to build things up in layers, especially by separating the various elements into distinct frequency areas. The Vermona twinVCF is perfect for this task, as it has two multimode filters that can be configured for parallel or serial routing. For example, stereo material can be routed through similar filter types for each channel, but with offset cutoff frequencies – then add some modulation via the CV inputs to create movement. For more flexibility, you can add the tVCF-Extension module (£128), which provides access to the individual filter band outputs

www.vermona.com

VERDICT 8.6

5 A simple but effective way to create drones is by feeding sounds with a slow attack into a long delay with the feedback turned up, so TC's new Flashback 2 is a perfect candidate, with a hefty seven-second maximum delay. Using one of the clear digital algorithms, a layered drone should go on for hours with little tonal degradation. Of course, sometimes imperfection is exactly what you want. In this case the Tape, Reverse or new Crystal setting work well. The pressure-sensitive 'MASH' feature adds another layer of user interactivity.

www.tcelectronic.com

VERDICT 8.7

5 TC Electronic Flashback 2 Delay £161

FM VERDICT



THE MUST-HAVE A delay unit is essential for creating drones, and Flashback 2 is a great contender that, unlike many guitar pedals, provides detailed editing via USB.



CREATIVE SOLUTION Originality is key, and the Koma Field Kit certainly ticks this box – but be prepared to put in some time for good results.