

Humanoid

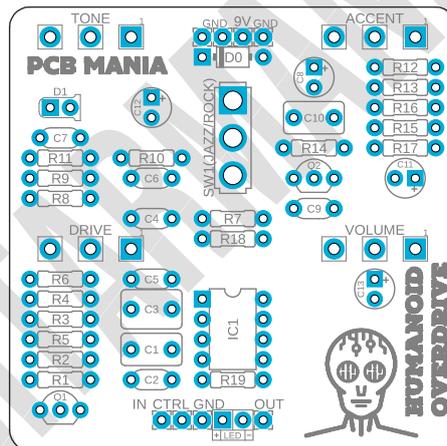
Based on:
Shin's Music Dumbloid
Effect type:
Dumblesque overdrive
Build difficult:
Intermediate

Amount of parts:
Average, total 42 components
Technology:
Dual Op amp
Power consumption:
9V

Enclosure type:
125b
Get your board at:
[Humanoid](#)
Get your kit at:
[Das Musikding \(Europe\)](#)

Project overview:

Inspired by the extremely hard to find and buy Shin's Music Dumbloid, this pedal is a versatile drive that can go from a clean and transparent boost to a tender, touch-sensitive, Dumble-style overdrive.



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Introduction

Some people say that it is easier to have a close alien encounter than to find an original Dumble amplifier. Most of you will never see one of these pedals in person, much less play through one. And if you, a friend, or a friend of a friend by any chance of fate discover one, you will find out that Dumbles are not only scarce, but astonishingly expensive.

Produced by Alexander Dumble out of his shop, hardly 300 Dumbles are currently in circulation, with many of them crafted for specific clients.

Because of this, the Shin Suzuki's Dumbloid was born: a Japanese take on the original circuit that meticulously recreates the Dumble sound. But don't get too excited yet; let me tell you that this one is also itself scarce and incredibly expensive, with prices above \$600 on the US used market.

Our version, The Humanoid is easier to find and buy and a friendlier approach for the human race in general. This smooth, clean, sensitive overdrive and transparent boost is something you must try. The controls deliver incredibly responsive and provide a large spectrum of tonal options, all of which are extremely good. Moreover, you can stack them, so the gain structures play off one another when used in conjunction.

Controls

- Accent
- Tone
- Volume

Bill of materials

Resistors	
Part	Value
R1	1m
R2	100r
R3	150k
R4	10k
R5	10k
R6	10k
R7	1k8
R8	10k
R9	1k
R10	10k
R11	220r
R12	1k
R13	1k
R14	100k
R15	10k
R16	100r
R17	10k
R18	10k
R19	4k7

Capacitors	
Part	Value
C1	470n
C2	100p
C3	1u
C4	220n
C5	82p
C6	220n
C7	100n
C9	220n
C10	470n

Electrolytics Capacitors	
Part	Value
C8	2u2
C11	22u
C12	47u
C13	47u

Potentiometers	
Part	Value
ACCENT	25kb
DRIVE	1ma
TONE	20kb
VOLUME	100kb

Trim pots	
Part	Value
IC1	OPA2134

Transistors	
Part	Value
Q1	BC548B
Q2	BC548B

Switches	
Part	Value
SW1(JAZZ/ROCK)	SPDT Toggle

Diodes	
Part	Value
D0	1n5817
D1	3mm RED LED

Shopping list

Resistors		
Qty	Value	Parts
1	100k	R14
2	100r	R2, R16
8	10k	R4, R5, R6, R8, R10, R15, R17, R18
1	150k	R3
3	1k	R9, R12, R13
1	1k8	R7
1	1m	R1
1	220r	R11
1	4k7	R19

Capacitors		
Qty	Value	Parts
1	100n	C7
1	100p	C2
1	1u	C3
3	220n	C4, C6, C9
2	470n	C1, C10
1	82p	C5

Electrolytics Capacitors		
Qty	Value	Parts
1	22u	C11
1	2u2	C8
2	47u	C12, C13

Potentiometers		
Qty	Value	Parts
1	100kb	VOLUME
1	1ma	DRIVE
1	20kb	TONE
1	25kb	ACCENT

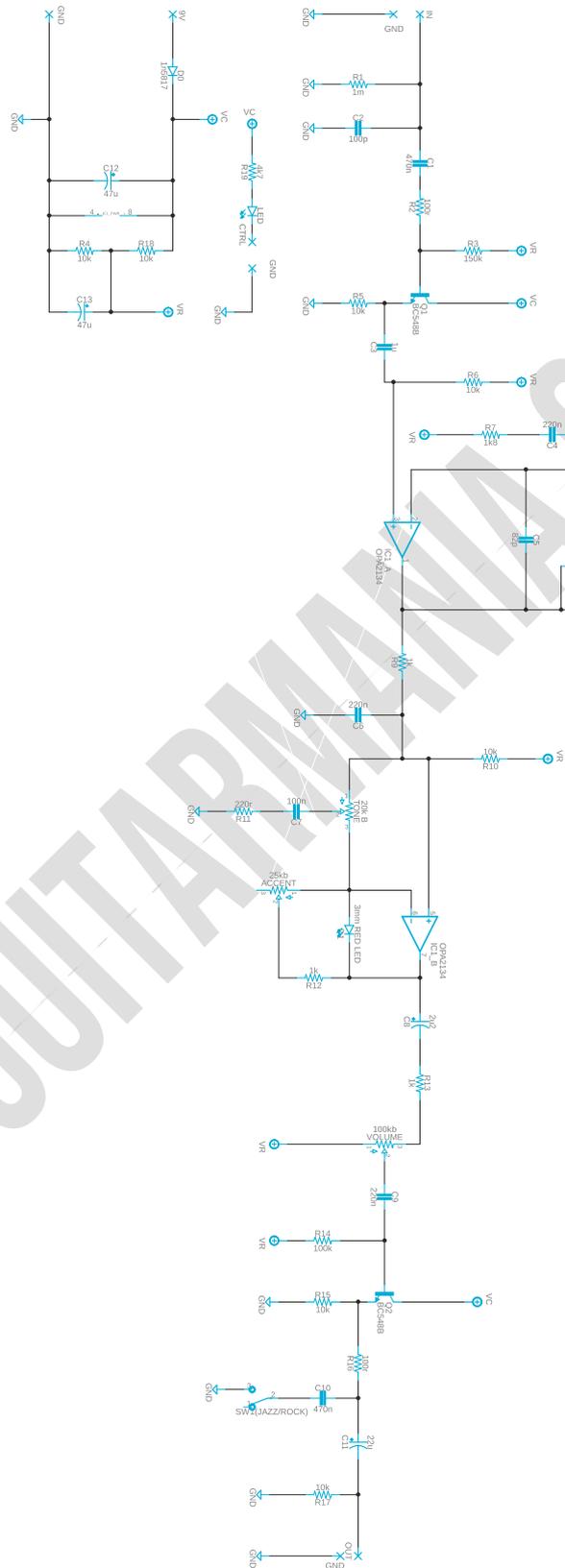
IC		
Qty	Value	Parts
1	OPA2134	IC1

Transistors		
Qty	Value	Parts
2	BC548B	Q1, Q2

Switches		
Qty	Value	Parts
1	SPDT Toggle	SW1(JAZZ/ROCK)

Diodes		
Qty	Value	Parts
1	1n5817	D0
1	3mm RED LED	D1

Schematic



Components Recommendations

As many people like to experiment with some pedals with higher voltage, always ensure your **electrolytic capacitors'** max tolerance is over 25v.

This board has been tested using Film box capacitors for most of the values over 1nf and ceramics discs for those under 1nf. However, high-quality components such as Wima's Capacitors and Panasonic's electrolytics can deliver a better performance.

All the resistors used for testing this project are 1/4W Metal Film.

The BOM and Shopping list are exclusive regarding this project. It doesn't include all the hardware like the 3PDT bypass switch, audio/dc jacks, enclosure, etc.

Build Notes

If this is one of your first projects, I recommend you to take a look at our [Pedal Building Guide](#).

For a successful and tidy build, it's recommended the following order:

1. Resistors & diodes
2. Capacitors, starting with the smaller ones and the ceramic ones.
3. Electrolytic capacitors (always check the polarity)
4. Transistors
5. Wires
6. Potentiometers and switches
7. Off-board wiring

Wiring Diagram

All our projects include a free 3PDT Board to make the wiring easier and tidier. Also, all of our PCBs feature the status LED on board.

The pad named "Ctrl" or "LED" is the one that controls the status of the led; wire it to the "LED" pad on the 3PDT board or in the control slug of your 3PDT.

This board has been designed to match our EZ 3PDT PCB; check it [here](#) to access our [Pedal Wiring Guide](#).

Drill Template

This Project has been planned to fit into a 125b enclosure type.

Check the Attached “Drilling templates” to drill the box properly. The files are on Scale 1:1, ready to print on an A4 page.

Licensing and Usage

We really appreciate your trust and support in buying this PCB, as well as your will to dive into the DIY electronics world. For us, that's why you can make this project work properly and enjoy not only the building process but also experiment and play with it on your rig.

We try to reply to every question we receive on our email or our social media. Still, we try to encourage all our customers to join our [PCB Guitar Mania - Builders Group](#) on Facebook to post all your doubts, issues, suggestions, or requests, share your builds, and have some feedback from other fellow builders and us!

We tested all our projects following this same guide on their standard configurations. Although, not all of the variations and mods have necessarily been checked. These are suggestions based on the schematic analysis and the experiences and opinions of others. Feel free to share with us your views and recommendations regarding the mods your personal experimentation.

These boards may be used for commercial endeavors in any quantity unless expressly noted. No attribution is necessary, though accreditation or a link back is always much appreciated.

If you are a builder planning to make your own run of pedals, we also offer the service of custom-made boards with your brand and logo, design according to your specifications.

The only usage restrictions are that, first, you cannot resell the PCB as part of a kit without prior arrangement with us, and second, you cannot scratch off the silkscreen or other way of trying to hide our logos and the source of the PCBs. Like it's written above, if you want to have your designs with your brand and logo, we could undoubtedly reach an agreement.

Follow us on [Instagram](#) and [Facebook](#) to stay in tune with the latest projects!