

Android Dwarf

Based on:
Dwarfcraft Robot Devil

Effect type:
Aggressive fuzz

Build difficult:
Easy

Amount of parts:
Low, total 24 components

Technology:
CMOS Integrated Circuits

Power consumption:
9V

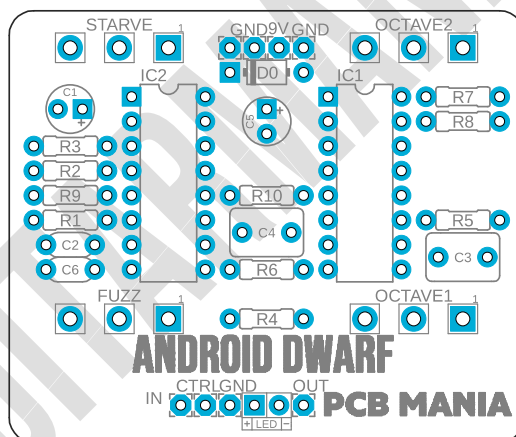
Enclosure type:
125b

Get your board at:
[Android Dwarf](#)

Get your kit at:
[Das Musikding \(Europe\)](#)

Project overview:

Aggressive fuzz, sag (starve) control board inspired by the Dwarfcraft's Robot Devil with some modifications that deliver some serious squeeling noise and square waves of doom.



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Introduction

We crafted this half-dwarf half-machine from the Robot Devil's circuit, creating something that can scream fuzz waves never heard before. This freakish being delivers a wide range of fuzz and overdrive with a massive volume that will show you how far a fuzz can go.

But you don't have to be afraid of this godless entity, it may not have a soul, but its four controls will grant you total command over its actions.

In addition to the original unit's octave down, we incorporated a modification that includes a second-octave down! (I think we got the mad scientist syndrome). By also changing the switch, we made it possible to have the two octaves down sounding simultaneously just by flicking it. Moreover, it contains a rhythmic oscillator that adds more dimension and complexity to your buzzing tone.

Altogether, the Android Dwarf aggressive fuzz will give you a unique sound, distinct from anything you've ever heard from other fuzz pedals. It is a simple-to-make board that only needs a couple easy to source components to mess with your signal. The result is a powerful sound, depth, and vast, and our humble contribution in the great struggle for domination that is raging on the battlefield of fuzz. You can search for similar heroes like the [Dwarf Destroyer](#) and the [Dwarf Master](#), decide who is the ultimate champion, or unite them together to your quest in search of the perfect fuzz sound!

Regarding the components, V1 needs a little modification (C6 does not have a footprint on the board) and needs to be placed in series with R1. Left side 100nf right side R1.

It will be fixed with the next batch and can be ignored once you see C6 on your PCB.

Controls

- FUZZ
- OCTAVE1
- OCTAVE2
- STARVE

Bill of materials

Resistors	
Part	Value
R1	2k
R2	3m3
R3	3m3
R4	100k
R5	100k
R6	100k
R7	100k
R8	100k
R9	1m
R10	4k7

Diodes	
Part	Value
D0	1n5817
LED	3mm Red LED

Capacitors	
Part	Value
C2	47n
C3	1u
C4	1u
C6	100n

Electrolytics Capacitors	
Part	Value
C1	1u
C5	100u

Potentiometers	
Part	Value
FUZZ	100k A
OCTAVE1	100k A
OCTAVE2	100k A
STARVE	2k B

IC	
Part	Value
IC1	4040N
IC2	4049N

Shopping list

Resistors		
Qty	Value	Parts
4	100k	R4, R5, R7, R8
1	100k	R6
1	1m	R9
1	2k	R1
2	3m3	R2, R3
1	4k7	R10

Capacitors		
Qty	Value	Parts
1	100n	C6
2	1u	C3, C4
1	47n	C2

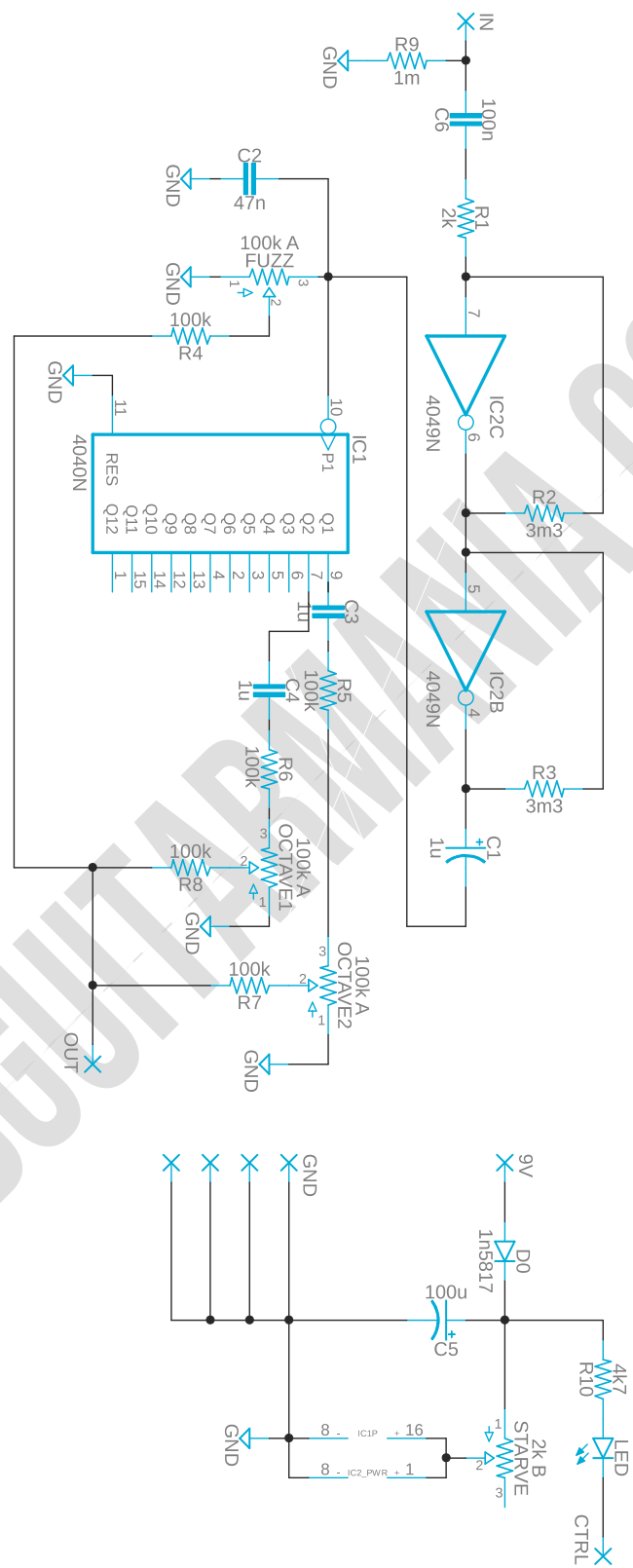
Electrolytics Capacitors		
Qty	Value	Parts
1	100u	C5
1	1u	C1

Potentiometers		
Qty	Value	Parts
3	100k A	FUZZ, OCTAVE1, OCTAVE2
1	2k B	STARVE

IC		
Qty	Value	Parts
1	4040N	IC1
1	4049N	IC2

Diodes		
Qty	Value	Parts
1	1n5817	D0
1	3mm Red LED	LED

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!