

Fire Fuzz

Based on:

EQD's Bellows

Effect type:

Fuzz

Build difficult:

Easy

Amount of parts:

Low, total 15 components

Technology:

NPN Silicon + JFET transistors

Power consumption:

9V

Enclosure type:

1590b

Get your board at:

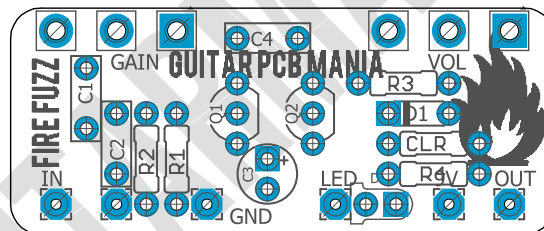
[Fire Fuzz](#)

Get your kit at:

[Das Musikding \(Europe\)](#)

Project overview:

Inspired by EQD's Bellow, this pedal only needs two knobs to deliver a lot of character! Its sound is located between the mold line and fuzzy saturation to create an extremely antique, dual-zone tone that works equally great with electric guitar and bass.



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Introduction

The Fire Fuzz is in between amp-like grit and fuzzy saturation. It starts with subtle amp-like breakup, and ends at full-on raging fuzz. In between you'll find an array of useful overdrive and distortion tones. Ready to be wired as True Bypass and with a tight design able to fit in a 1590 enclosure, the Fire Fuzz is an easy-to-build handy gain board that can drive an entire show from the dainty first song to the harsh grounded finale!

Controls

- Vol
- Gain

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Bill of materials

Resistors	
Part	Value
R1	10k
R2	10k
R3	22k
R4	200r
CLR	2K7-4K7

Capacitors	
Part	Value
C1	22n
C2	1n
C3	100u electro
C4	68n

Potentiometers	
Part	Value
VOL	100k B
GAIN	250k B

Transistors	
Part	Value
Q1	PF5102
Q2	MPSA13

Diodes	
Part	Value
D1	1n4001
D2	3mm red LED

Shopping list

Resistors		
Qty	Value	Parts
2	10k	R1, R2
1	22k	R3
1	200r	R4
2	2K7-4K7	CLR

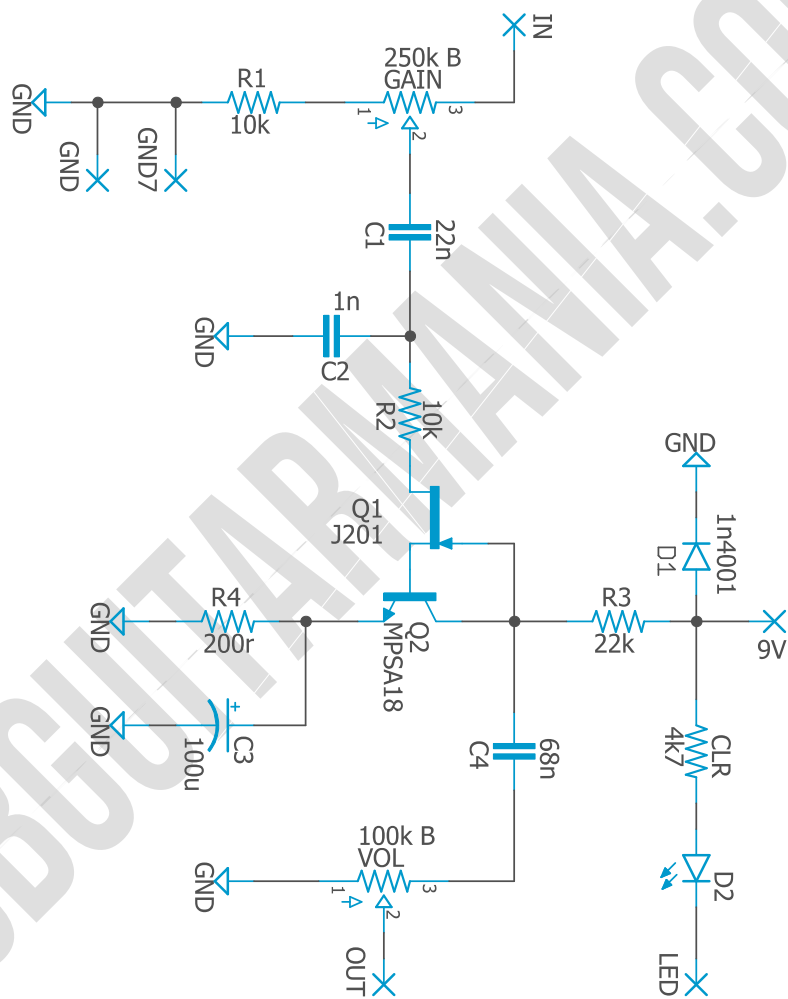
Capacitors		
Qty	Value	Parts
1	22n	C1
1	1n	C2
1	100u electro	C3
1	68n	C4

Potentiometers		
Qty	Value	Parts
1	100k B	VOL
1	250k B	GAIN

Transistors		
Qty	Value	Parts
1	PF5102	Q1
1	MPSA13	Q2

Diodes		
Qty	Value	Parts
1	1n4001	D1
1	3mm red LED	D2

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

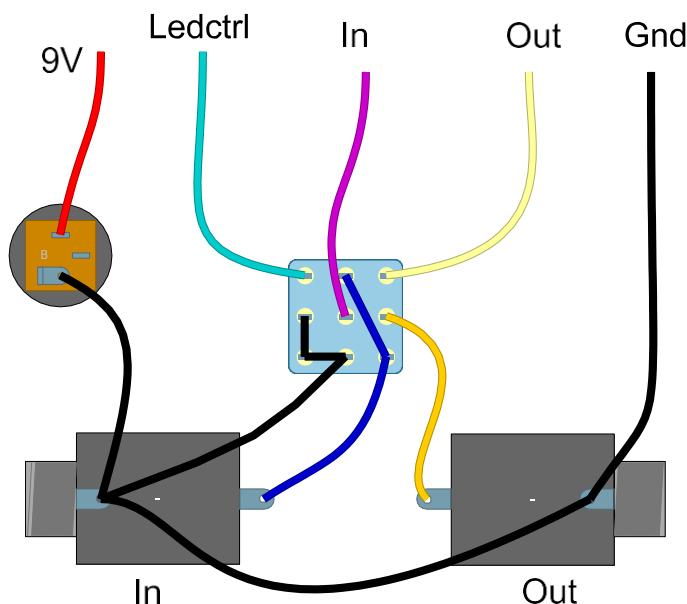
Wiring Diagram

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](#).

Off Board Wiring



Drill Template

This Project has been planned to fit into a 1590b 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.

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