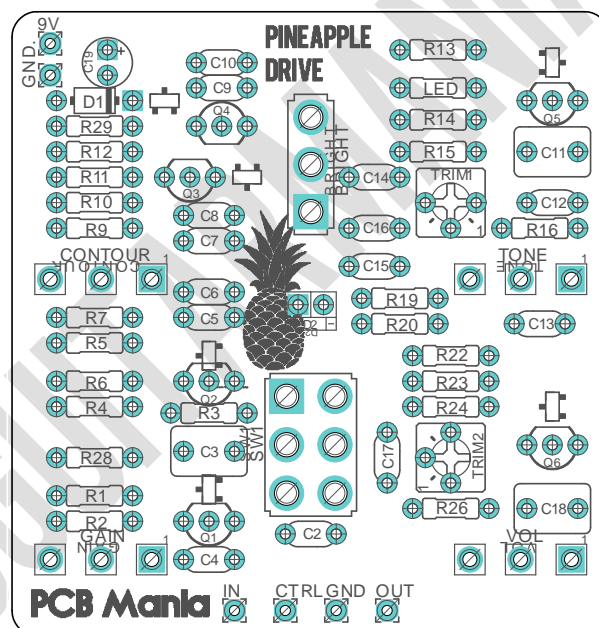


Pineapple Drive

Based on: Wampler's Pinnacle	Amount of parts: Average, total 63 components	Enclosure type: 125B
Effect type: EVH "brown sound" distortion	Technology: JFET J201 cascade	Get your board at: Pineapple Drive
Build difficult: Medium	Power consumption: 4mA (9v) / 10mA (18v)	Get your kit at: Das Musikding (Europe)

Project overview:

Extremely versatile drive, well known for giving the "Brown Sound", the tone and style of distortion made famous by Eddie Van Halen. Featuring two separate styles of gain structure, a powerful mid contour (from scooped to mid hump) control and a control that squeezes out every ounce of tone from your guitar.



Real measures are:

59.69mm width x 62.23mm height

2.38" width x 2.45" height

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Introduction

This circuit has been developed by Brian Wampler in order to recreate the classic “Brown sound” tone associated to Eddie Van Halen, without losing the versatility, being able to deliver from a mild overdrive to extreme gain and everything in between.

The Pineapple drive is a recreation of the Wampler’s original Pinnacle, featuring two separate styles of gain structure, a powerful mid contour (from scooped to mid boost) that compliments perfectly with the Tone control in order to dial your perfect sound.

Including a booster switch that could be wired as an standard DPDT toggle or as stomp switch for more versatility, and a bright switch (originally called “Vintage/Modern”) this board is capable of a wide range of tonal versatility.

This version includes two trimmers to bias the non-cascade JFET at taste, or just to place a 22k resistor instead of the trimmers just as the original. Also features pads to use standard through hole J201 or the more available and reliable SMD version.

Controls

The Pineapple drive has the same controls as most overdrive or distortion effects, but including some interesting and useful improvements:

- Tone controls the tone response of the effect. The center point (12:00) is flat. When turned to the left, it adds bass, and when turned to the right, it boosts treble.
- Gain: Controls the amount of gain going from the first cascade stages to the second one.
- Volume controls the overall output of the effect.
- Contour: Acts as Mids control, from scooped to the left, flat at 12:00 and boosted to the right.

In addition to the 4 control knobs the project features two toggles:

- Bright: Enable/disable the C14 6.8nf capacitor after the tone knob. It’s called modern/vintage switch on the Wampler’s original
- Boost: Engages R3 and R9 from the first and second cascade stage to ground, in order to act as a gain boost.

Bill of materials

Resistors	
R1	1m
R2	470r
R3	1k
R4	10k
R5	1m
R6	1m
R7	470k
R9	1k
R10	10k
R11	1m
R12	1m
R13	82k
R14	1k
R15	82k
R16	47k
R19	10k
R20	10k
R22	220k
R23	220k
R24	1k
R26	22k
R28	1m
R29	10r

Capacitors	
C2	220pf
C3	1uf
C4	22n
C5	56n
C6	22n
C7	470pf
C8	150pf
C9	100n
C10	22n
C11	1uf
C12	10n
C13	10n
C14	6n8
C15	4n7
C16	33n
C17	4n7
C18	1uf
C19 (electrolytic)	220uf V25

Potentiometers	
GAIN	A 500k
CONTOUR	C 50K*
TONE	B 100k
VOL	A 100k
TRIM1	50k
TRIM2	50k

Semiconductor	
Q1	J201
Q2	J201
Q3	J201
Q4	J201
Q5	J201
Q6	J201
D1	1n4001
D2	3mm red led

Switches	
SW1-Boost	DPDT ON-ON
SW2-Bright	SPDT ON-ON

Shopping list

Resistors

Quantity	Value	Position
4	10k	R4, R10, R19, R20
2	82k	R13, R15
1	47k	R16
1	22k	R26
1	470r	R2
1	2k7-4k7	LED
1	10r	R29
1	470k	R7
2	220k	R22, R23
4	1k	R3, R9, R14, R24
6	1m	R1, R5, R6, R11, R12, R28

Potentiometers

Quantity	Value	Position
1	C 50K***	CONTOUR
1	A 100k	VOL
1	A 500k	GAIN
1	B 100k	TONE
2	50k Trimmer	TRIM1, TRIM2

Capacitors

Quantity	Value	Position
1	100n	C9
2	10n	C12, C13
1	150pf	C8
3	1uf	C3, C11, C18
3	22n	C4, C6, C10
1	33n	C16
1	470pf	C7
1	56n	C5
1	6n8	C14
2	4n7	C15, C17
1	220pf	C2
1	220uf v25 electrolytic**	C19

Semi-conductors

Quantity	Value	Position
6	J201*	Q1, Q2, Q3, Q4, Q5, Q6
1	3mm red led	D2
1	1n4001	D1

Switches

Quantity	Value	Position
1	DPDT ON-ON	SW1
1	SPDT ON-ON	BRIGHT

Components Recommendations

For this project is a must to use **JFET J201*** from a trusted source such as Das Musikding, Small bear, and many other pedal related suppliers. DO NOT trust non verified vendors, as are many counterfeits out there, and they won't work properly on your build.

This board features the possibility of use the SMD (Surface mounted device) J201, as well as the classic format TO-92 (regular transistor) now discontinued, place either the SMD version or the standard one per transistor position.

As many people like to experiment some pedals with higher voltage, always ensure the max tolerance of

your **electrolytic capacitors**** is over 25v.

This board has been tested using Film box capacitors for most of the values over 1nf, and ceramics discs for the ones 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.

All the pots are Alpha 16mm. **Countour*** C 50K**, is anti-logarithmic potentiometer, if you have any issue sourcing it, you could try with a **B 50K** lineal potentiometer for a similar functionality.

This board features two trim pots to bias the non-cascade J201 Q5 & Q6, replacing the original 22k resistors. If you don't feel to experimente biasing the transistors, you can always swap the trimmers for a 22k resistor; just place it in between pads 1 and 3.

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

The **Boost** DPDT could be replaced by a Stomp switch as its featured on some Wampler's versions. Just follow the same pattern for wiring it as the one presented on board.

Build Notes

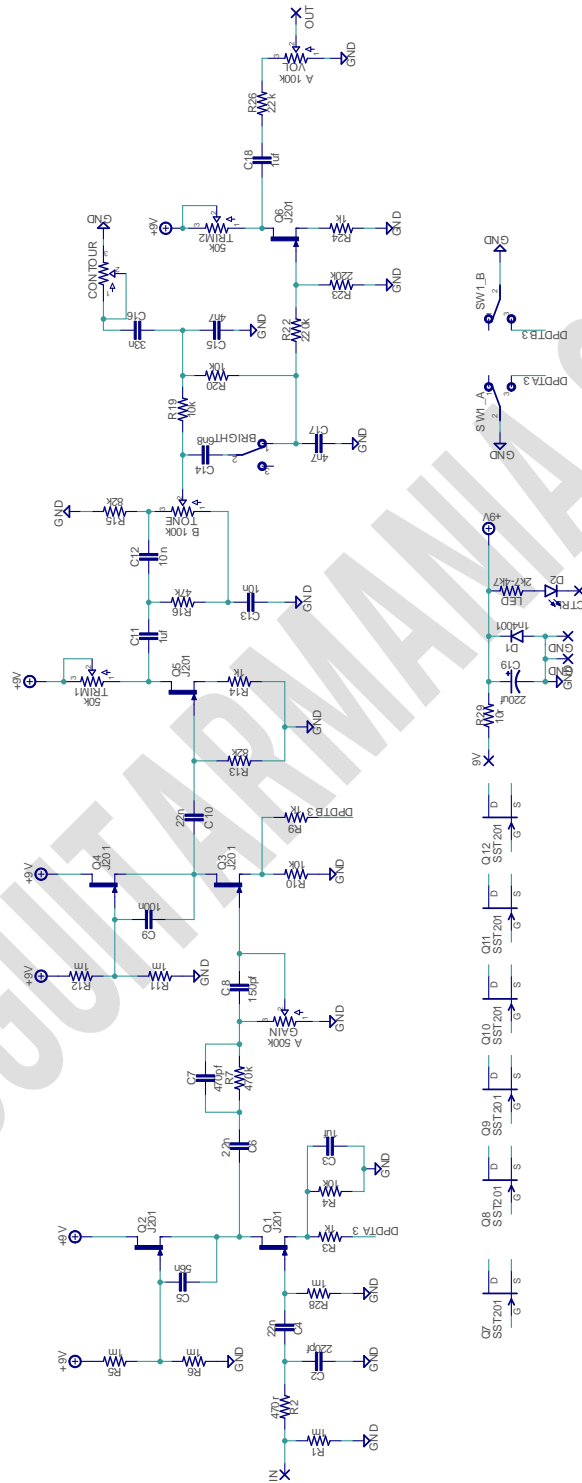
If this is one of your first projects I recommend you to take a look on our [Pedal Building Guide](#)

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

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

To bias correctly the transistors you must plug your finished build into the power supply first. With your tester on voltage mode (V20) plug the negative tip into the ground of the project, some alligators could be really helpful. With the positive tip touch the Drain leg of your transistor and it should appear the voltage on your tester screen. Tweak the trim pot till you read 4.5v if you are using a 9v power supply. Do the fine adjustment by ear, in order to bias at your own personal taste.

Schematic

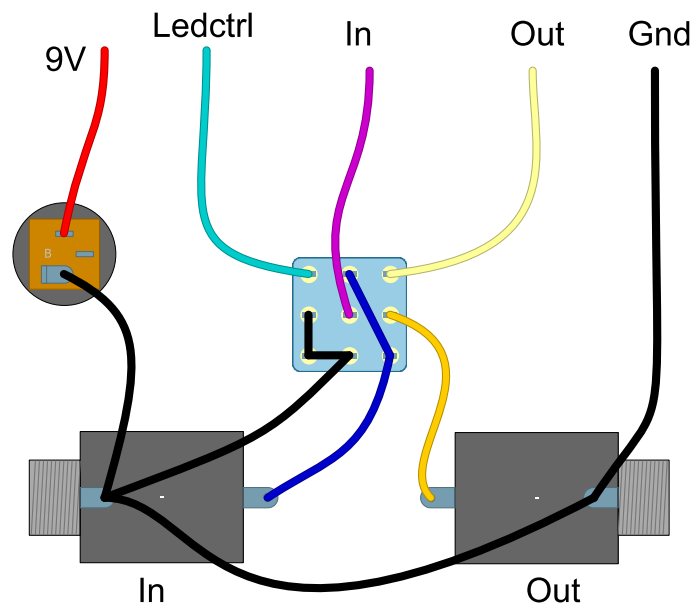


Wiring Diagram

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 control slug of your 3PDT.

You can take a look on the following diagram to understand the general connections. For further information check our [Pedal Wiring guide](#).



Drill Template

This Project has been planned to fit into a 125B enclosure type (122x67x35mm approx.)

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

Licensing and Usage

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

We try to reply to every question we receive on our email or in our social media, but we try to encourage all our customers to join our [PCB Guitar Mania – Builders Grup](#) on Facebook, in order to post all your doubts, issues, suggestions or request, as well to share your builds and have some feedback from us and other fellow builders!

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

These boards may be used for commercial endeavors in any quantity unless specifically noted. No attribution is necessary, though accreditation or a link back is always greatly 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 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 silk screen, or other way of trying to hide our logos and the source of the PCBs. Like its written above, if you want to have your own designs, with your brand and logo we could certainly reach an agreement.

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