Eagle Claw octave fuzz

The Eagle Claw is simple yet brutal, noisy and glitchy sounding CMOS-based fuzz with a full wave rectifier to produce a strong octave up.

This circuit works best with high output pickups. It is a gated circuit by nature of the CMOS logic. If you are using single coils and need more sustain, try a boost or compressor in front. To bring out the strongest octave up, use the neck pickup on your guitar with the tone rolled down. The octave is most intense around the 10th fret and higher. Happy playing!
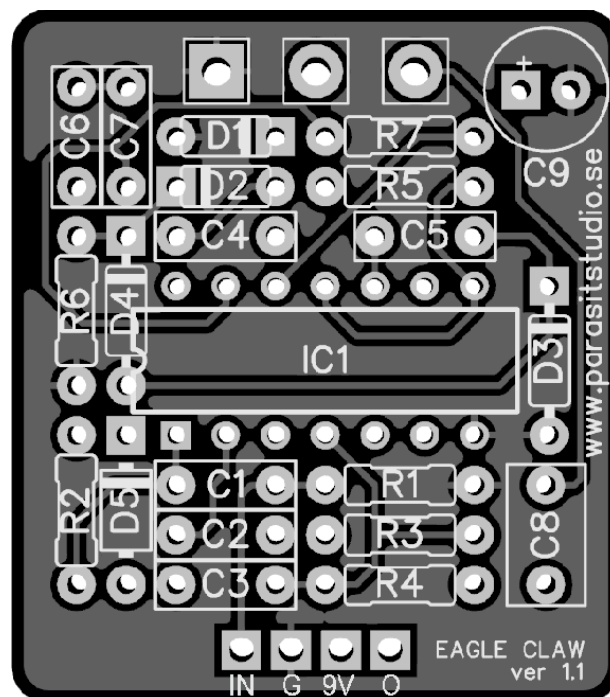
General build tips

- Solder the low profile components first, from short to tall. Recommended order: resistors, diodes, IC socket, film-caps, electrolytics, pots.
- CMOS chips are very sensitive to static charges and can be easily damaged. It's a good idea to wear a anti-static bracelet or at least avoid wearing a wool jumper and petting your cat/dog while building...
- Always use sockets for IC chips and transistors to avoid heating them directly. It also makes it much easier to swap them out if needed.
- Pay special attention to the orientation of the diodes and electrolytics.
- This PCB is designed for a board mounted angeled pot, but if you want to use a regular solderlug-pot, the square hole represents pot pin 1.
- The pot is meant to be mounted on the back side (solder side) of the PCB and soldered on the front side (component side).

Wiring

For more info on how to wire up the stompswitch, jacks ect, please visit the Parasit Studio website and download the PDF called "offboard wiring". You can find it here:

http://www.parasitstudio.se/build-docs.html

Eagle Claw Bill of Materials (BOM)

Resistors		Capacitors		IC's	
R1	1M	C1	100nF	IC1	CD4069UBE
R2	1M	C2	100nF		
R3	1M	C3	22nF		
R4	100K	C4	10nF		
R5	1M	C5	10nF		
R6	22K	C6	1nF	**Potentiometers**	
R7	470K	C7	100nF	VOLUME	B1M
CLR*	4.7 – 18K	C8	1uF		
		C9	100uF		
Diodes					
D1	1N4148				
D2	1N4148				
D3	1N4148				
D4	1N4148				
D5	1N4001				
1x LED for bypass					

- * = Current Limiting resistor for your bypass LED. This needs to be wired offboard. Choose the appropriate value for your LED. Usually a 4.7K resistor is good for a regular coloured diffused LED and a 15K resistor for a clear superbright LED.
- Other things not included in the BOM but good to have: enclosure, input and output jacks, DC jack, stomp switch and knobs.

Troubleshooting

There's always a chance of running into trouble. To minimize error, follow the BOM and general building tips carefully. Take your time and don't rush. Take a break now and then. Use good solder, and it helps to have a decent soldering station insted of a cheap iron.

Musikding DIY kit

If you have bought the Musikding DIY kit and have recieved a faulty faulty, incorrect or missing component, please contact musikding.

Contact us

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Schematic

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this schematic without asking first
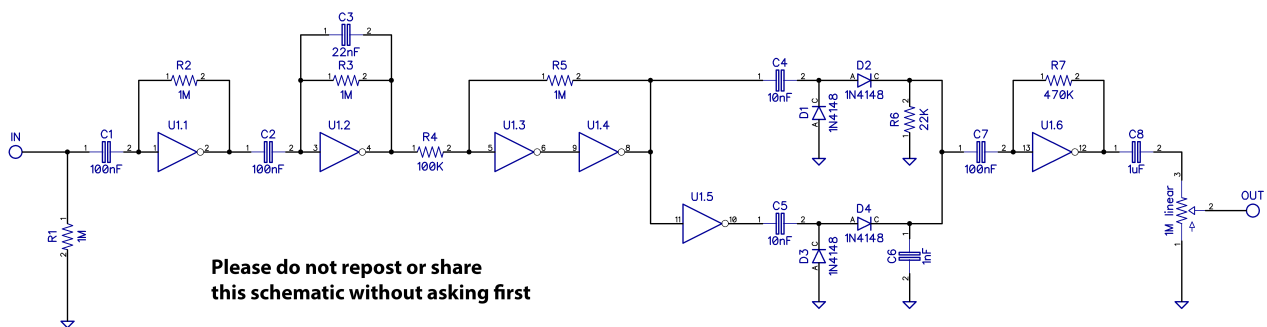
Note that power connections, dc filtering and polarity protection is not shown in this schematic