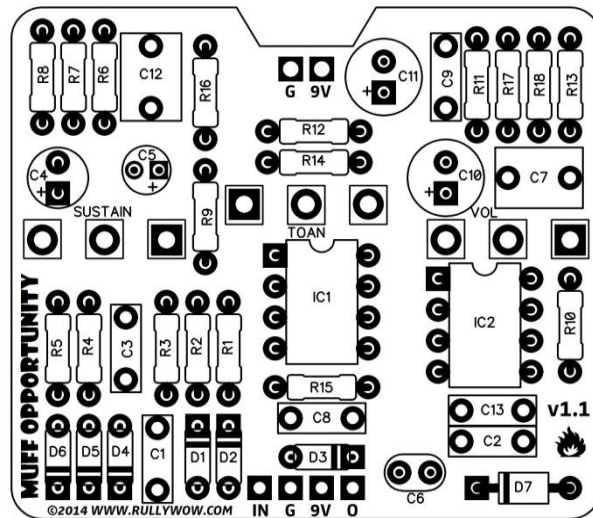


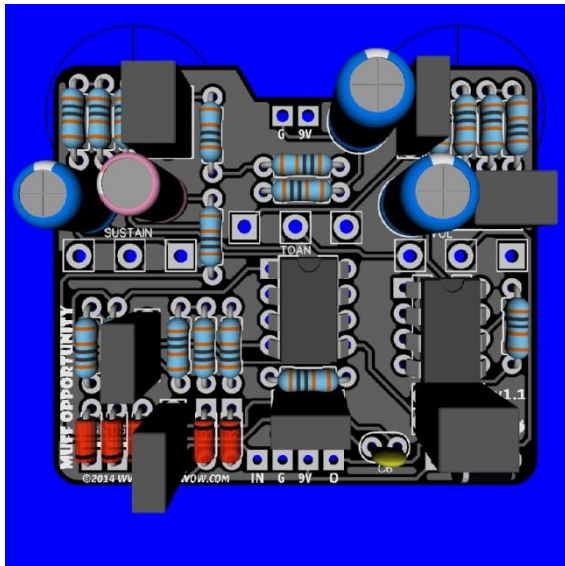
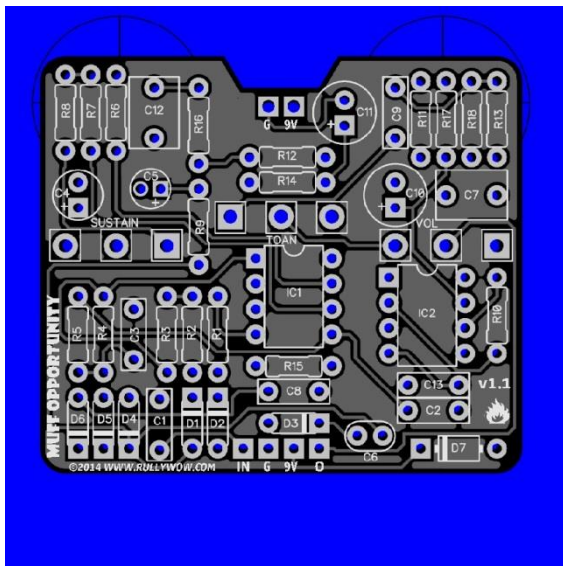
# MUFF OPPORTUNITY

**FX type: FUZZ**

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PCB dimensions (1.9" x 1.65")



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## Components - By Location

Caps		Resistors		Diodes		
Location	Value	Location	Value	Location	Type	
C1	150n	film	R1	1M	D1-D6	1n914
C2	10n	film	R2	56k	D7	1n4001
C3	4n7	film	R3	330k	IC	
C4	10uF	electro	R4	10k	IC1	4558
C5	4u7	electro	R5	47k	IC2	LM741
C6	150pF	ceramic	R6	560k	Pots	
C7	1uF	film	R7	62k	SUSTAIN	B10K
C8	100n	film	R8	47R	TOAN	B10K
C9	120n	film	R9	8k2	VOL	B50K
C10	100uF	electro	R10	470k		
C11	100uF	electro	R11	5k6		
C12	1uF	film	R12	1k2		
C13	220n	film	R13	100k		
			R14	47R		
			R15	220k		
			R16	220k		
			R17	820k		
			R18	1M		

## Components - By Value

Caps		Resistors		Diodes		
Location	Value	Location	Value	Location	Type	
C8	100n	film	R13	100k	D1-D6	1n914
C10	100uF	electro	R4	10k	D7	1n4001
C11	100uF	electro	R12	1k2	IC	
C2	10n	film	R1	1M	IC1	4558
C4	10uF	electro	R18	1M	IC2	LM741
C9	120n	film	R15	220k	Pots	
C1	150n	film	R16	220k	SUSTAIN	B10K
C6	150pF	ceramic	R3	330k	TOAN	B10K
C7	1uF	film	R10	470k	VOL	B50K
C12	1uF	film	R5	47k		
C13	220n	film	R8	47R		
C3	4n7	film	R14	47R		
C5	4u7	electro	R6	560k		
			R2	56k		
			R11	5k6		
			R7	62k		
			R17	820k		
			R9	8k2		

The **Muff Opportunity** PCB is a faithful recreation of the Big Muff Pi which were released around 1978. Instead of using transistors, they use opamps to achieve a very distinct fuzz tone. Billy Corgan of the Smashing Pumpkins is known for using these types of muffs to create his unique sound. The sound is very much like a standard muff, but with more of a smooth crunch that is "in your face."

This is an easy level build, and you should have it completed in no time!

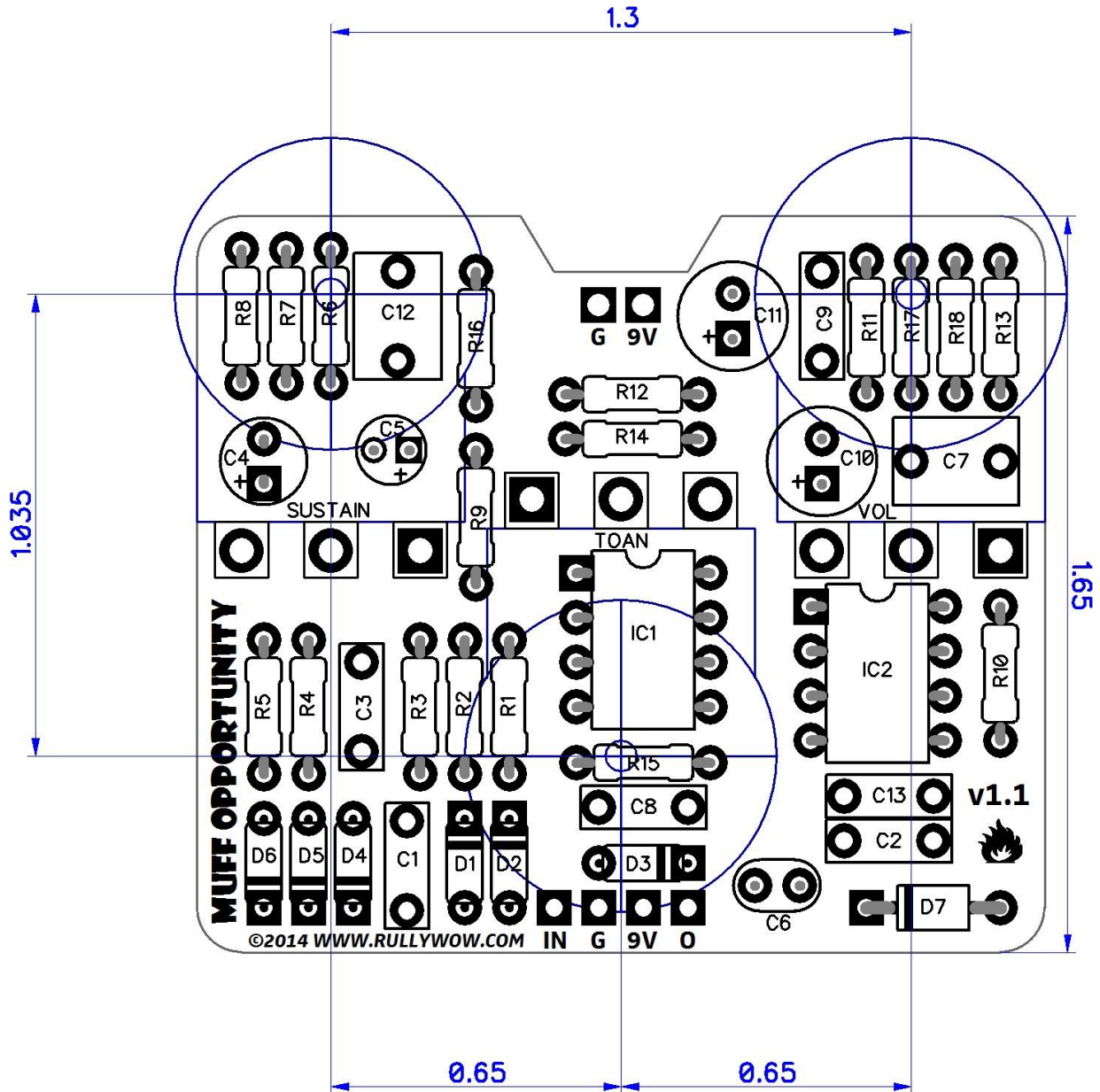
**Opamps** are standard and can be swapped with others to experiment. Socketing is recommended. The 4558 can be swapped with just about any dual DIP-8 (such as TL072, NE5532, OPA2134 etc). The LM741 is a standard single op-amp. You can try other single amp IC's such as TL071 for different flavors here.

**Diodes** are 1n914 germaniums in the original. Again, you may socket these and try out different ones for different "toanz".

**Enclosure** choice is up to you, this PCB was designed to fit in a 1590B nicely.

# DRILL DIMENSIONS

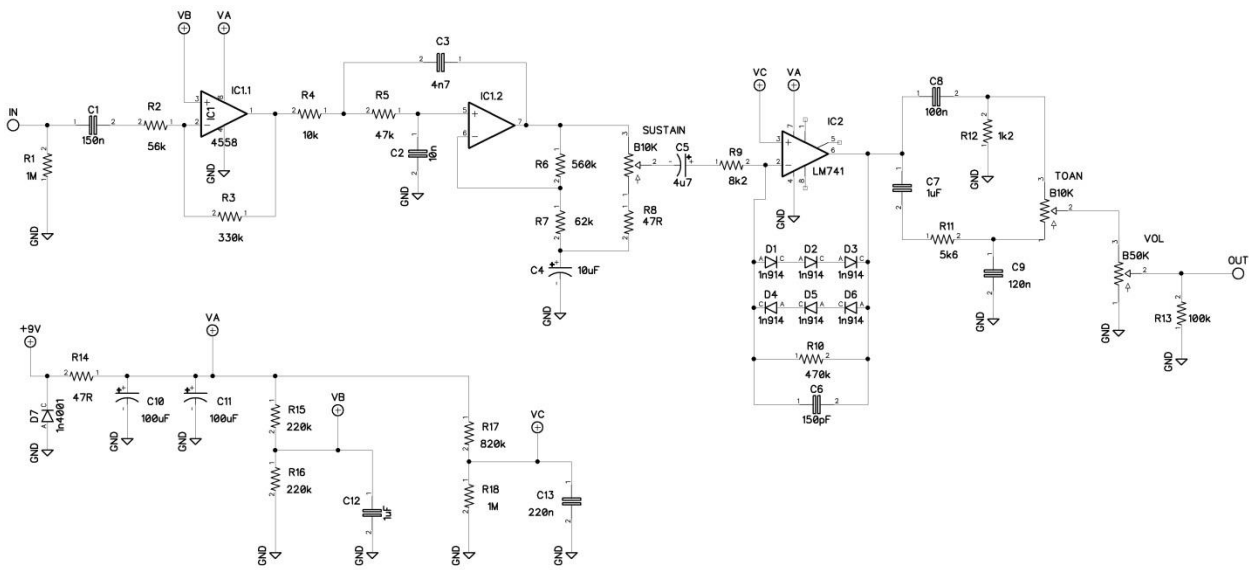
(in inches and NOT to scale)



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# Muff Opportunity Schematic

Based upon diagrams available at  
[www.freestompboxes.org](http://www.freestompboxes.org)



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