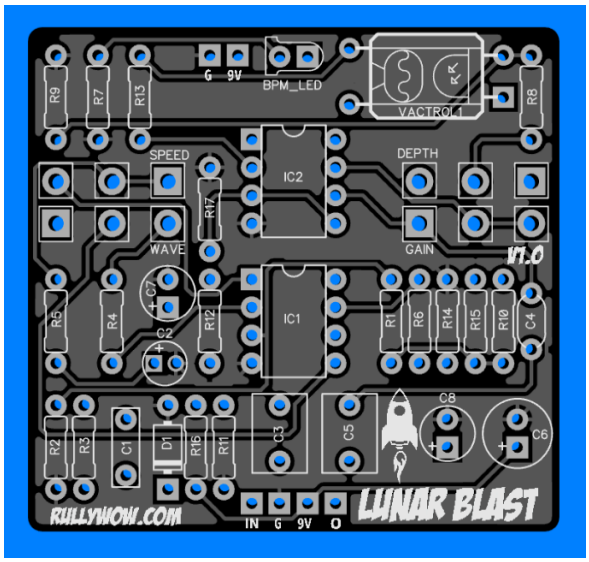
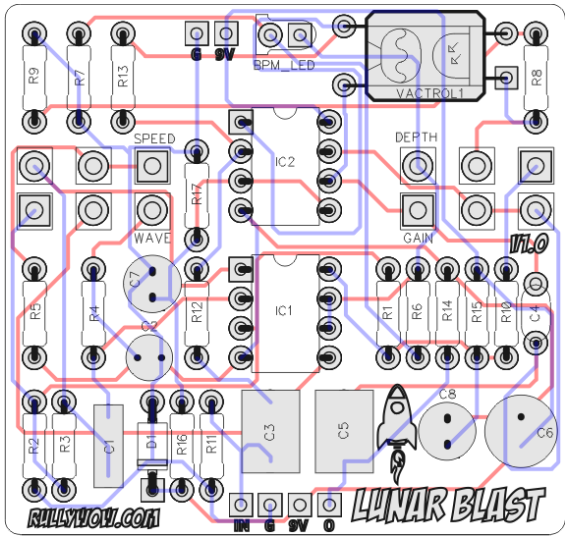
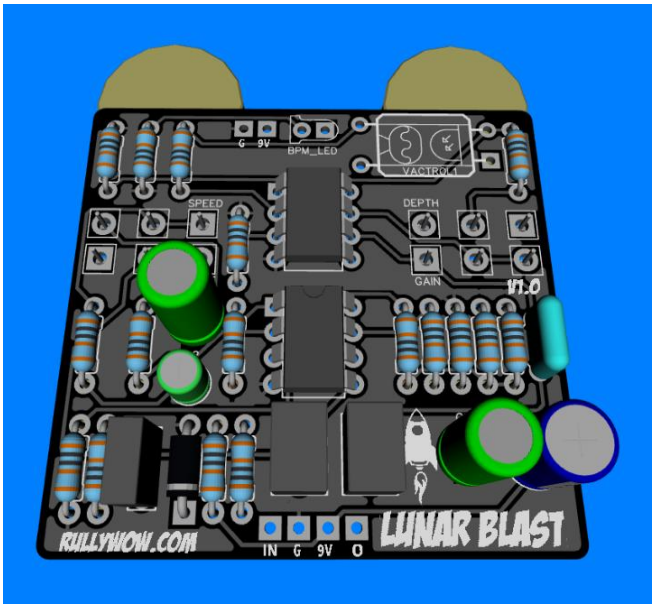






Description:

Based on the venerable DIY Tremulus Lune classic circuit, www.madbean.com forum member *CultureJam* created this awesome sounding tremolo dubbed the "Shoot the Moon". Rullywow brings you this circuit with just a few minor changes. It is an easy to build project, and better yet – uses common off-the-shelf parts. This is one great sounding tremolo. Quick build and rewarding!

Lunar BLAST!

Caps		
C6	100uF	electro
C1	10n	film
C2	10uF	electro
C3	100n	film
C5	100n	film
C4	330p	ceramic
C7	47uF	electro
C8	47uF	electro

Diodes	
D1	1n4001
Pots	
DEPTH	1kB
GAIN	10kB
SPEED	100kC
WAVE	500kB
IC	
IC1	4558
IC2	TL072
"VACTROL"	
Tayda LDR	Orange LED

Resistors	
R16	100k
R17	100k
R15	100R
R6	1k
R7	1k
R8	1k
R9	1k
R11	1M
R14	1M
R1	220k
R2	220k
R3	220k
R4	220k
R12	220k
R13	220k
R5	2k2
R10	470R

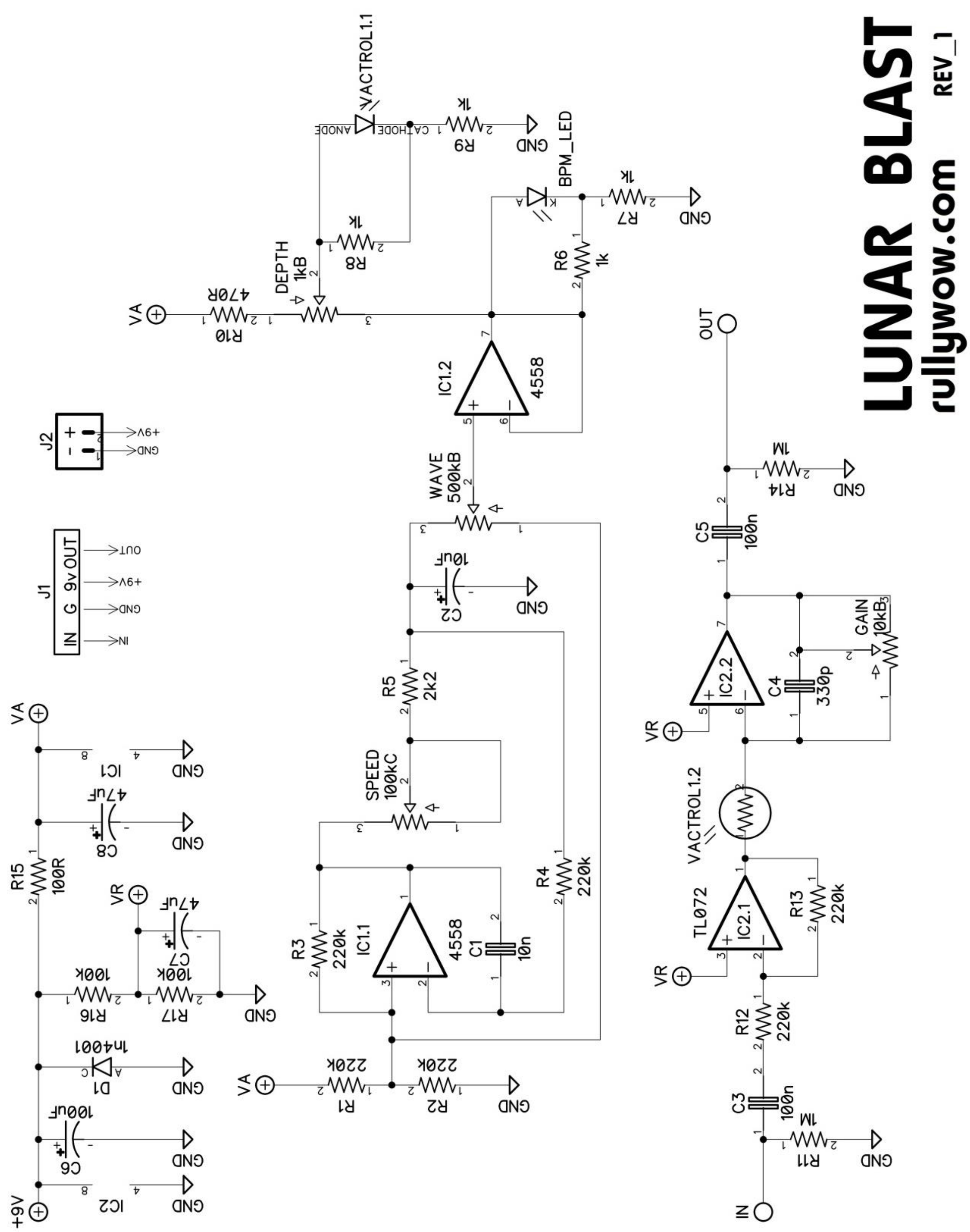
Project Specific Tips:

- The "Vactrol" is nothing more than just a Tayda LDR (or any other cheap LDR you may have) and an orange clear LED. You could try different LDR and different color LEDs, but I have had the best results with orange colored clear LED. LED anode (+) goes in the square pad. The LDR can go either way. Some choose to shrink the two together in a tube of shrink tubing, however if the back is on the enclosure it will be in the dark – your call. Here is a picture of how I bent the leads to face each other.

- C3 and C5 (input and output DC blocking caps) were originally 1uF in original circuit but I had an issue with "thumping" when effect on. Since switching to 100n, no issues. Therefore, I recommend 100n
- IC1 is recommended to be a 4558 as it drives the LFO and therefore doesn't need to be high-fidelity. You could of course substitute just about any other dual opamp.
- IC2 is in the audio circuit and was most likely why the TL072 was chosen. You can of definitely swap this with just about any other dual opamp with the same pin configuration.

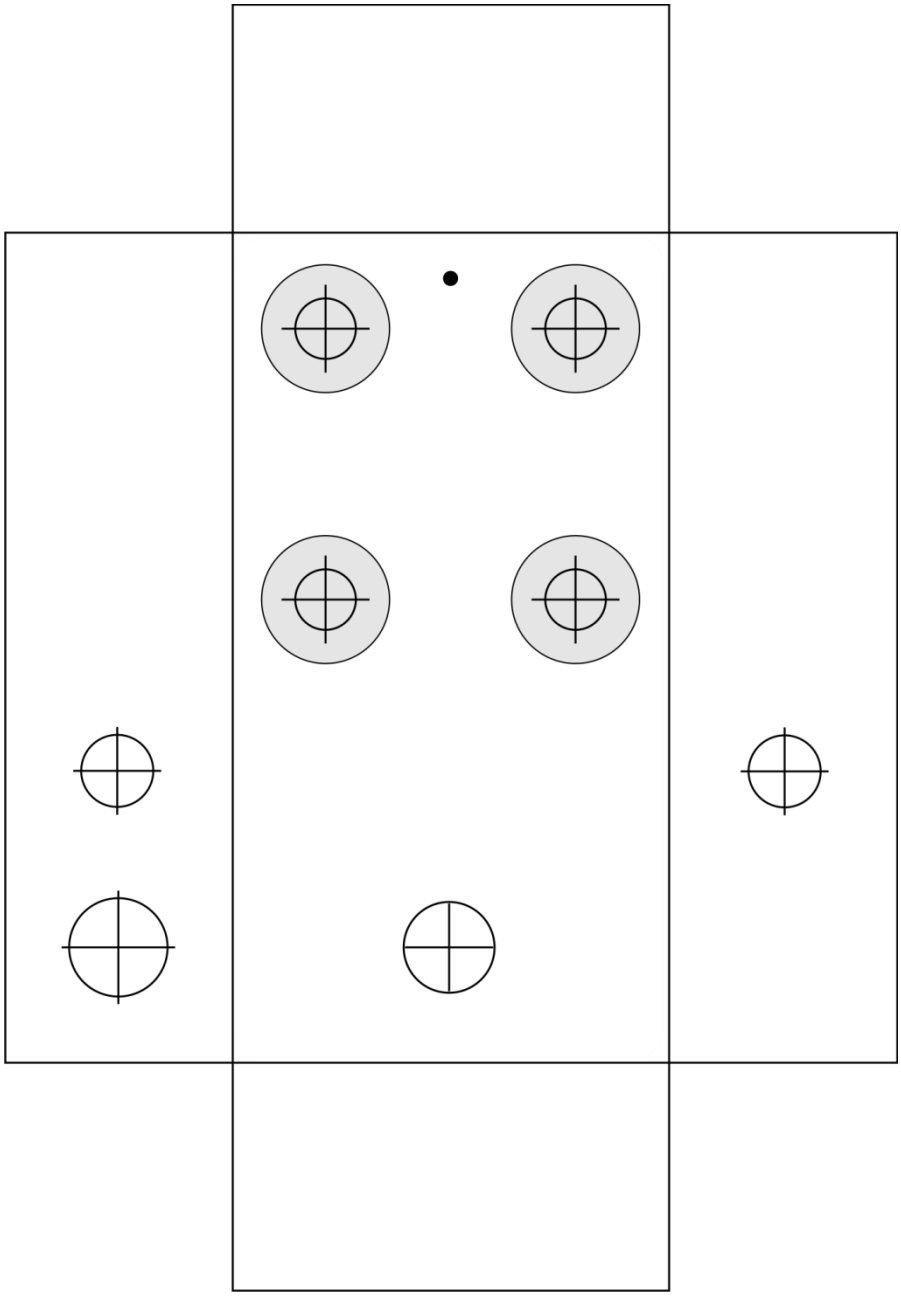
General Build Tips:

- It is a good idea to solder components from shortest height to tallest. In this case, you should start with resistors, diodes, film caps, electrolytic caps, and IC/sockets.
- All pots are 16mm Alpha right angle PCB mount. Here is a link to the type (maybe not the value) at Tayda Electronics: http://www.taydaelectronics.com/potentiometer-variable-resistors/rotary-potentiometer/linear/10k-ohm-linear-taper-potentiometer-round-shaft-pc-mount.html
- It is a very good idea to drill holes in your enclosure first, and mount the pots with the nuts **BEFORE** soldering the pots to the PCB. Align everything then solder. This ensures you won't put a lot of stress on the PCB.
- Be sure to insulate the pots from shorting on the back of the PCB. There are special pot covers or you may use tape or some other insulating material.
- Before putting your creation into its enclosure, you should always test it! If it doesn't work outside the enclosure, it won't work inside (I promise!)


LUNAR BLAST
rullywow.com
REV_1
VACTROL1.1
ANODE
CATHODE
R9
1k
GND
BPM_LED
R7
1k
DEPTH
1kB
R8
1k
R10
470R
VA
R6
1k
IC1.2
4558
J2
+9V
GND
OUT
R14
1M
WAVE
500kB
J1
IN G 9v OUT
C5
100n
C2
10uF
GAIN
10kB
IC2.2
C4
330p
R5
2k2
VR
SPEED
100kC
VACTROL1.2
IC1
C8
47uF
R15
100R
R4
220k
TL072
IC2.1
R13
220k
C7
47uF
R3
220k
IC1.1
4558
C1
10n
R16
100k
R17
100k
R12
220k
D1
1n4001
R1
220k
R2
220k
C3
100n
C6
100uF
R11
1M
IN
+9V
IC2

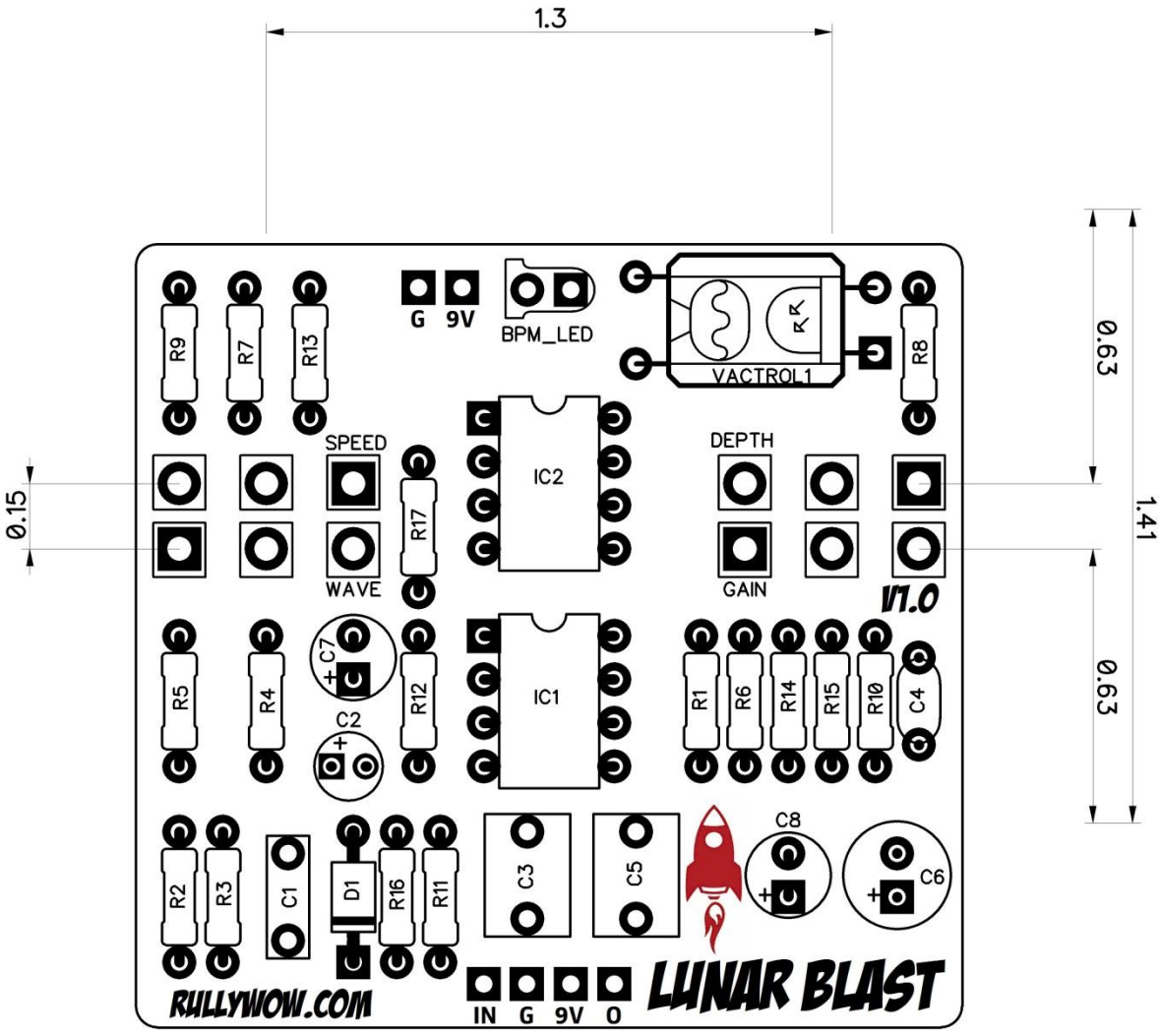
Drill Guide (for 1590B) :

This is an *APPROXIMATE* drill guide. Enclosures differ in size so be sure to measure before your commit to drill!



PCB Dimensions = 1.9" x 1.9"

Dimensions below in inches. Based on 16mm right angle Alpha Pots



Terms of Use:

- PCBs from www.rullywow.com are intended for DIY use and are not allowed for commercial resale or as part of a KIT. It is OK to build (and sell) a few pedals for your friends, bandmates, yourself (that is what the DIY guitar pedal community is all about!)