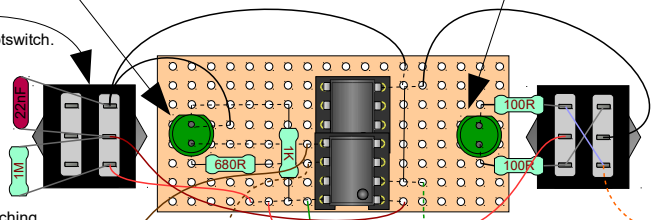
Effects and presets switch – V1.0

The IC chip is a C4024 binary counter.
It's important to get one that works with the 3,3 volts supplied.
(HCF chip – NOT HCT. Check the datasheet to make sure you get the right chip)

This LED is a dual color LED.
This one only has two legs/pins, so the LED lights up with different color, depending on which way the current flows through it. I bought mine here:
http://www.banzaimusic.com/LED-5mm-2-pin-red-green-Dual-Color.html

This is a Tri-color LED with common cathode.
Here's a link to the one I used:
http://www.banzaimusic.com/LED-5mm-Tri-color.html

This is a **momentary** SPDT footswitch.
(here it's shown as a DPDT, becuase I couldn't find a good quality SPDT momentary footswitch, and used a DPDT instead)



The 22nF capacitor and the 1M resistor helps with the IC switching. Without them, the effects switching can be unstable.

The 100r resistors helps to avoid pulling the supply voltage of Pin 6 below 3,3 volts. Without them the circuit doesnt work properly.
*(it **might** work fine with just one resistor, and the other side connected straight to the switch, but I haven't tried that)*

Pin 1 (orange/white) (preset switching)

The 1K and 680R resistors are used to adjust the brightness of the various colours of the tri-color LED. Adjust them to your personal taste.

Pin 7 (brown/white) (effects switching)

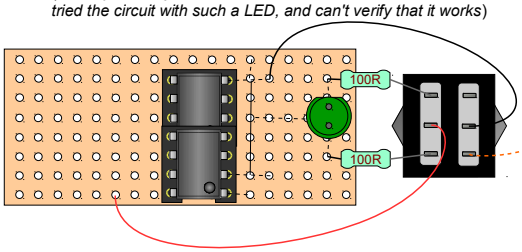
Pin 3 (green/white) (Gnd)

Pin number and colors refer to RJ45 connector

Pin 8 (brown) (effects switching)

Pin 6 (green) (3,3V)

If you are using a LED with a common cathode(3 legs/pins), you would connect the common cathode to ground, and **not** put the two crossed wires on the switch.
You'd need two 100r resistors though.
Here's a quick drawing of how it could be done – the rest of the circuit would be the same as above.
(*actually, I think just one 100R resistor from the common cathode to ground **might** be OK, but I haven't tried the circuit with such a LED, and can't verify that it works*)



Pin 1 (orange/white) (preset switching)

Here's a schematic I drew up of the circuit.

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Pin numbers/colors correspond to the RJ45 connnector to the main pedal.
(Pin 1 - orange/white - preset switching)
(Pin 3 - green/white - ground)
(Pin 6 - green - 3.3V)
(Pin 7 - brown/white - effects switching 1)
(Pin 8 - brown - effects switching 2)
Footswitches: Sw1 is a momentary SPDT, Sw2 is a regular DPDT
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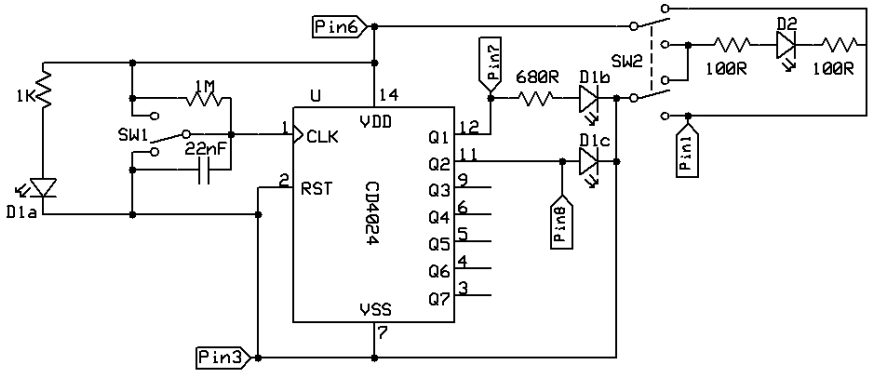


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1K and 680R resistors helps adjust the brightness of the tri-color LEDs. Adjust to taste.
The 100R resistors prevent pulling pin 1 below 3.3V

D1a,b & c is a tri-color led with common cathode. D1a is always on,
the other two are switched in to blend with D1a, thus giving the option of 4 different colors.
D2 is a two-pin dual color LED. The color is dependant on which way the current flows through it.
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NOTE:
While I was messing around with building this switch, I several times asked Brian Neunaber questions about the circuit. He was very helpful and has given better customer support, than I could possibly ask for. I highly recommend his products!