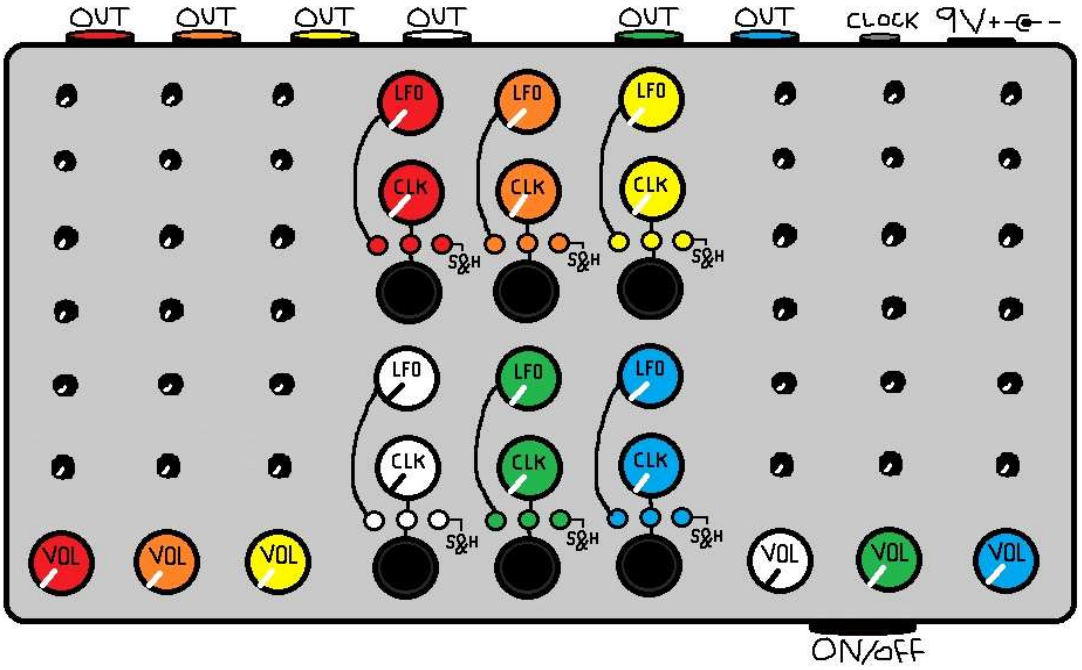
Primitive Manual

Thank you for supporting Magpie Pedals and getting yourself a primitive synthesizer!

Primitive works on a single 9V battery (unclear for how long, hehe) or 9VDC center negative.

Controls:

Primitive has 6 seperate banks of 6 oscillators. Each bank with a dedicated control circuit and volume knob (color coded). Plus optional individual outputs that all sum up to "red" (the leftmost output).



Each control circuit is simply powering a 40106 which then provides all the oscillators. An analog LFO is run into a LF398 chip that is being clocked by a microcontroller which lets us control the 40106 in three different modes:

1: Manual Mode, where you "*sample"* by either pressing the *black button* or connecting a *5V CV-Clock* to the 3,5mm jack on the back (it will control all the 40106s at once).

2: Auto mode, where the S&H is automatically sampling and holding. You set the rate by either *tapping on the black button* or adjusting the *CLK knob*. It will automatically switch over to whatever you change last but since the circuit is rather chaotic it has a tendancy to prioritize the knob.

3: LFO Mode, whenever entering *manual mode* from *auto mode* the S&H will be in a "open" state of constantly sampling the analog signal. This makes it follow the LFO directly and you can now enjoy massive rising and falling drones in a wide range of tempos.

Inside Trimpot: On the inside you will find dedicated LFO "shape" trimpots for each control circuit. Since the LFOs are analog this simply sets how fast a large capacitor charges/discharges. Feel free to tweak these a tiny bit if you find that I didn't manage to set them all to a nice round LFO. (I colored inside so you can see easy which is which!)