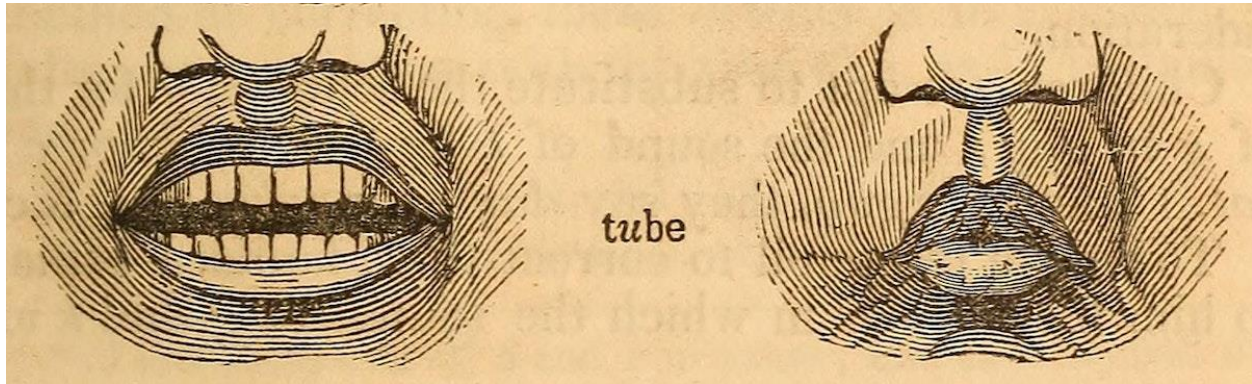# MOUTH

tube

*"Don't get me wrong, he's a nice guy, I like him just fine
But he's a mouth breather" -Jesus Lizard*

1.1 Overall description

MOUTH is a 2-channel true stereo fixed resonance/bandpass filter/vowel filter and/or anti-wah module. It uses a unique CV circuit using several infra-red optocouplers which makes it very suitable for audio range/fast CV. It can also use regular, slow, CV with ease. Channel 1 sound input <u>and</u> cv are normaled to channel 2. It is thus easy to create a stereo signal using a mono input. It has a invert switch which flips the incoming cv from channel 1 on its head and creates wide evolving stereo soundscapes.

Middle knob is frequency offset, there are also two attenuators for the incoming CV signals. You have two outputs for each channel and also a mix out for blending signals, so you can use this module to mix two completely different sound sources post filtering.

The first printing of the panel has a misprint labeling the module "DE-12" which is incorrect. The correct labeling should be DE-19. If you have this panel it might be worth a fortune in the future[1]

2.1 The actual build.

Building this is straight forward. I usually place the power header and solder it in first. Then I usually place all the jacks and solder in the ground pin (the one sticking out from the jack) from above. Place the pots and switch, put the panel on and make sure everything looks good

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[1] Yeah right

from the front. Solder everything in. Double check for any shorts before plugging it in. You are then done. Please enjoy MOUTH.

BOM

Part	Designator	QTY	INFO	Product link
Thonkiconns	J1-J7	7	Thonkiconn jacks	https://www.thonk.co.uk/shop/thonkiconn/
100k pot	RV1, RV3	2	100k lin potentiometer T18	https://www.thonk.co.uk/shop/alpha-9mm-pots-vertical-t18/
100k dual gang pot	RV2	1	100K dual gang lin pot t18	https://www.thonk.co.uk/shop/alpha-9mm-pots-vertical-t18/
SPDT ON-ON	SW1	1	ON-ON SPDT	https://www.taydaelectronics.com/mini-toggle-switch-spdt-on-on.html
RV2 Knob for dual gang potentiometer	knob	1	Tall Synthpointer - Small - T18 Shaft	https://www.thonk.co.uk/shop/tall-satin-synthpointer-knobs/
Micro knobs	knobs	2	Must be Black	https://www.thonk.co.uk/shop/micro-knobs/
Euro rack Power pins, cut to lenght	SV1	1	10pin eurorack header	https://www.taydaelectronics.com/2x40-pin-2-54-mm-double-row-pin-header-strip.html