

DIY INSTRUCTIONS

This document will guide the user through the process of building their own WONK module. While this should be a simple and enjoyable process, some prior experience with soldering is highly recommended before starting this project.

Please ensure that steps are followed in the correct order, as failure to do so may cause complications further on in the build.

For help building this module, please email support@scrapcode.co.uk.

COMPONENT CHECKLIST

Please check the following component list before starting assembly. If any components are missing or damaged, please email support@scrapcode.co.uk.

Components Bag:

- 11x Jack socket
- 2x 100K potentiometer
- 1x 100K potentiometer with centre detent
- 4x Red LED
- 2x On-Off-On switch
- 1x IC socket
- 1x Power header
- 1x 2x3 jumper block
- 2x 8x header pin pair
- 1x 10x header pin pair
- 2x Trimmer toppler
- 1x Plastic knob
- 1x Brass pot adapter
- 7x Silver nut
- 4x Red nut

Installation Bag:

- 2x 6mm screw
- 1x Ribbon cable

Other:

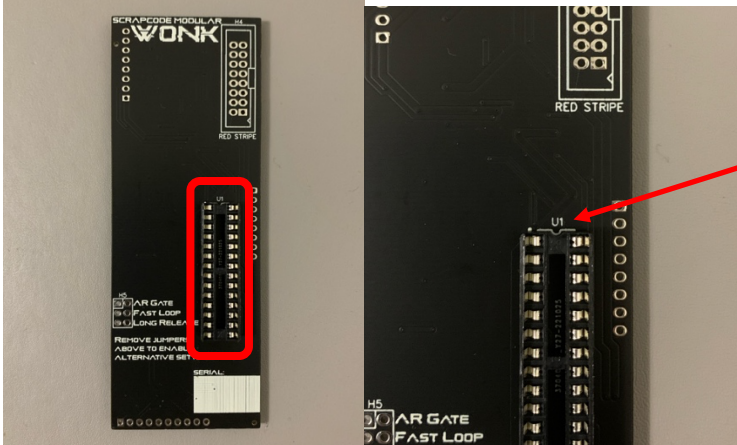
- 2x PCB
- 1x Faceplate
- 1x ATMEGA328P microprocessor

TOOLS REQUIRED

- Soldering iron
- Solder (ideally lead-free)
- Clippers
- Small flathead screwdriver
- 3.5mm knurled nut driver
- Masking tape
- Eye protection
- Fume extractor

1 – IC SOCKET

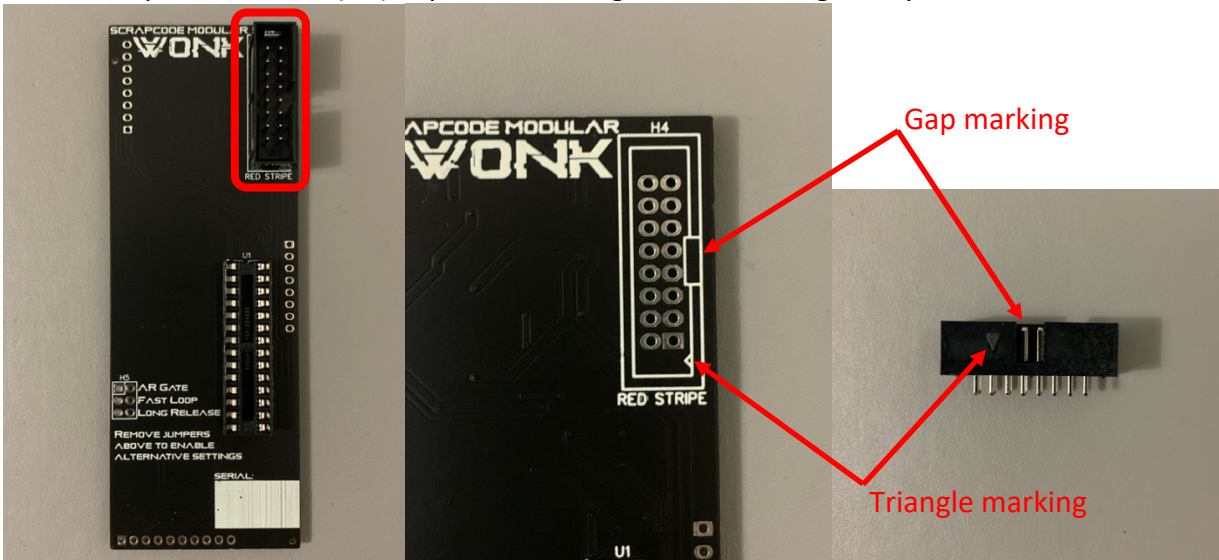
Solder the IC socket (U1) in place, ensuring that it is the right way around.



The dimple on the silkscreen and socket should be aligned

2 – POWER HEADER

Solder the power header (H4) in place, ensuring that it is the right way around.



Gap marking

Triangle marking

3 – JUMPER BLOCK

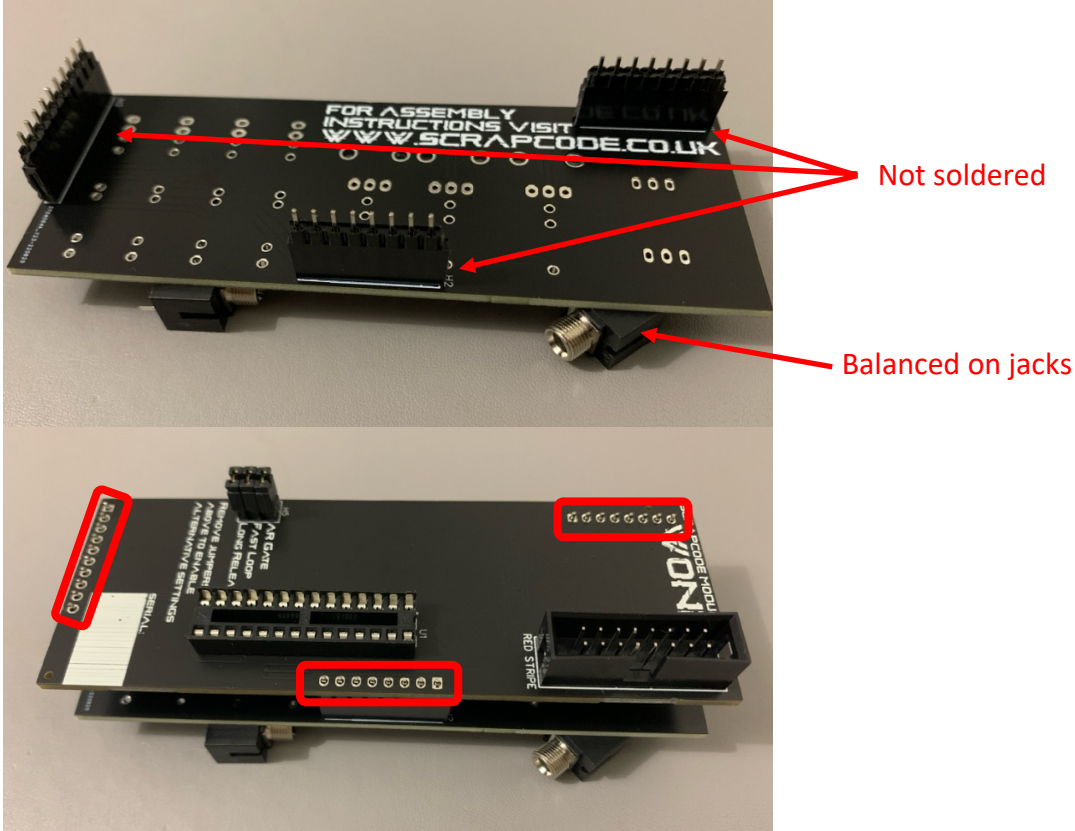
Solder the 2x3 jumper block (H5) in place.



4 – HEADER PINS

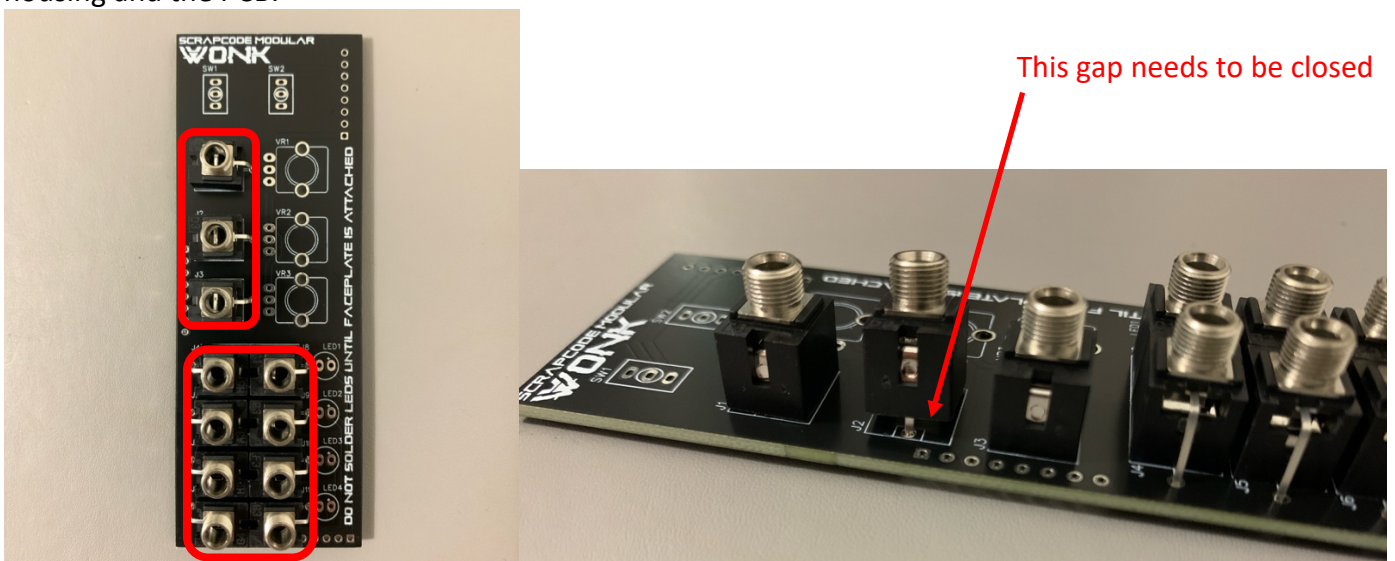
Balance the three header pins (H1-3) on the second PCB (you may find it helpful to raise it slightly on some jack sockets), place the first PCB on top, and then solder the header pins in place.

Do not solder them onto the second PCB yet.



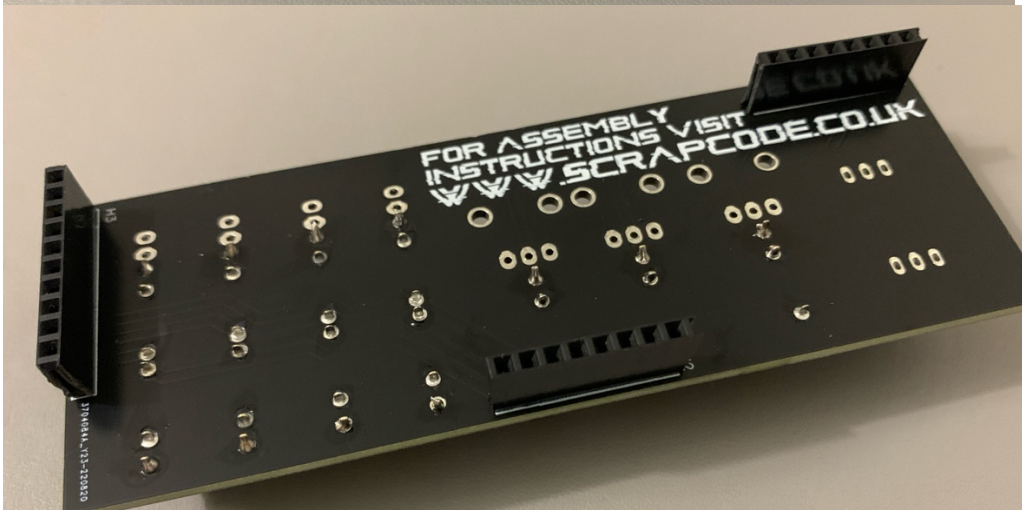
5 – JACKS

Solder the jacks (J1-11) in place, ensuring that they are mounted flat with no gaps between the plastic housing and the PCB.



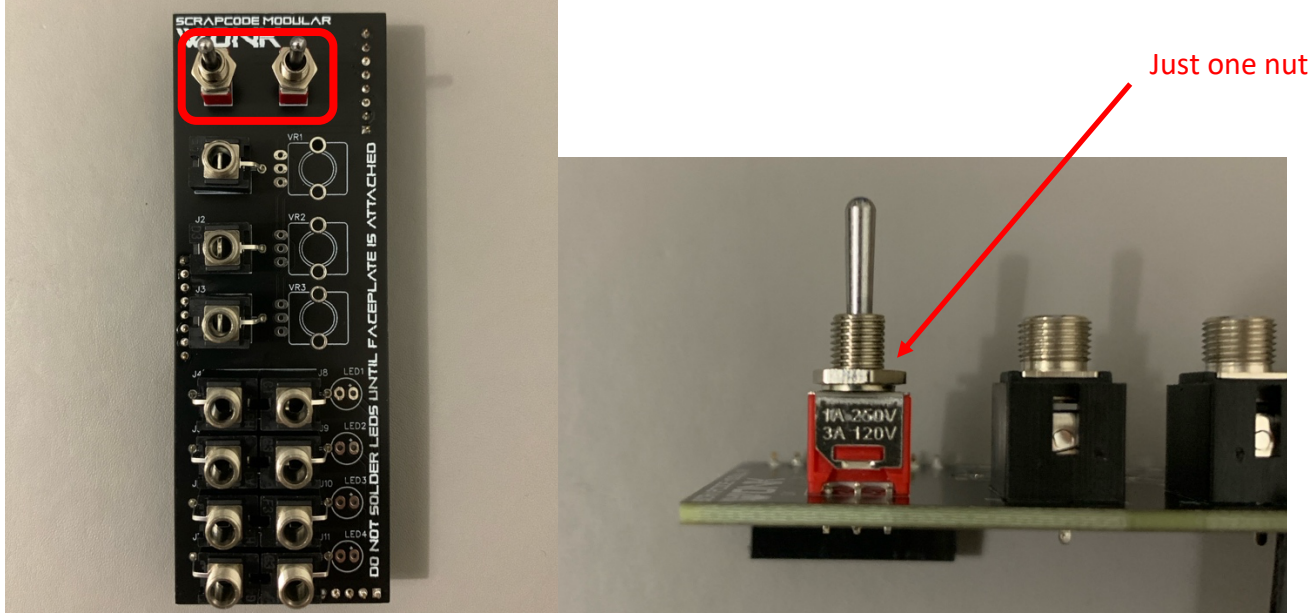
6 – HEADER PINS

Solder the header pins (H1-3), joining the two PCBs together. Once the solder has cooled, gently pry the boards apart.



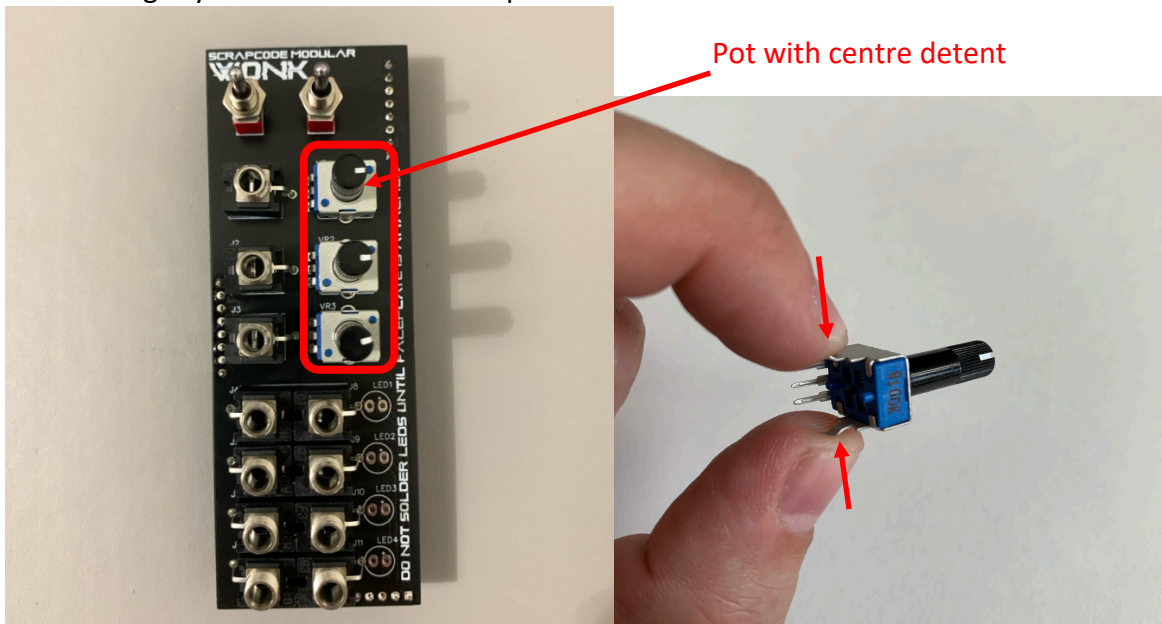
7 – SWITCHES

Solder the two switches (SW1 & SW2) in place, ensuring that they are both mounted flat with no gaps between the plastic housing and the PCB. Remove one nut from each jack and place to one side for later use, and ensure that the other nut is finger tight.



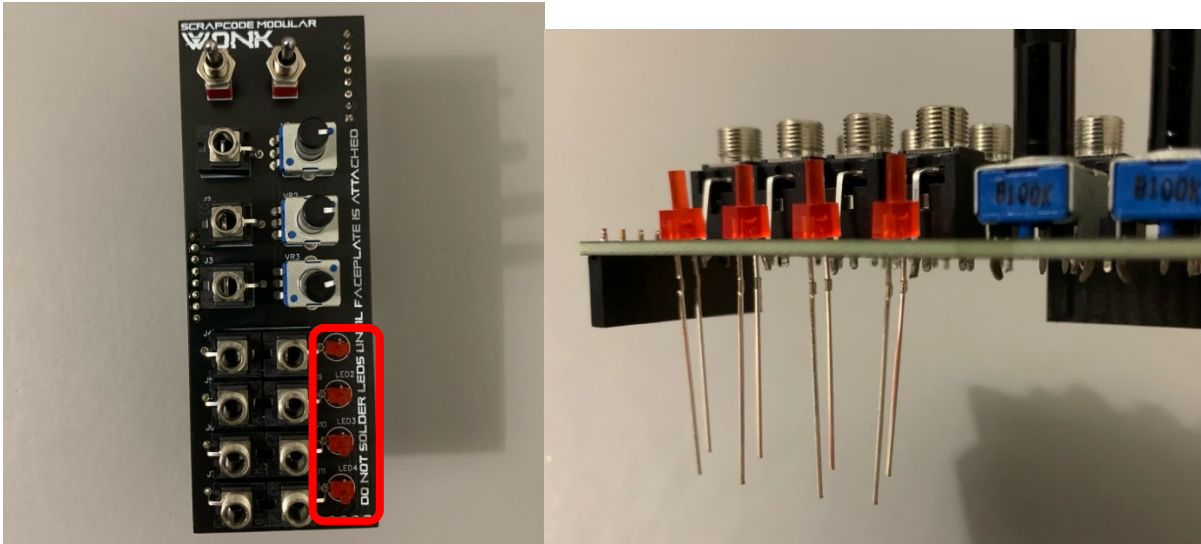
8 – POTS

Insert the pots (VR1-3), but **do not solder them** yet. Ensure that the pot with the centre detent (which may also have a shorter shaft) is in the top position (VR1). The large edge pins may need to be squeezed inwards slightly before insertion to help them fit.



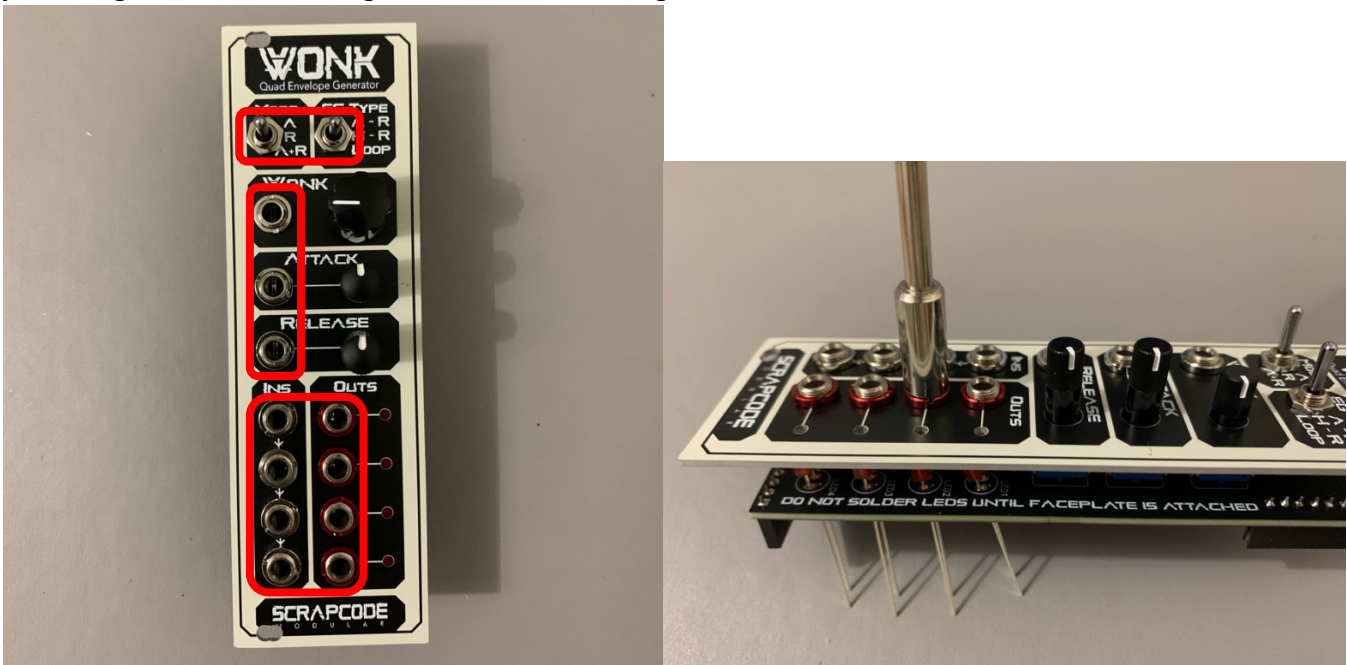
9 – LEDs

Place the LEDs (LED1-4) in position, but **do not solder them yet**. Make sure that the long leg on each LED goes through the hole labelled “+”.



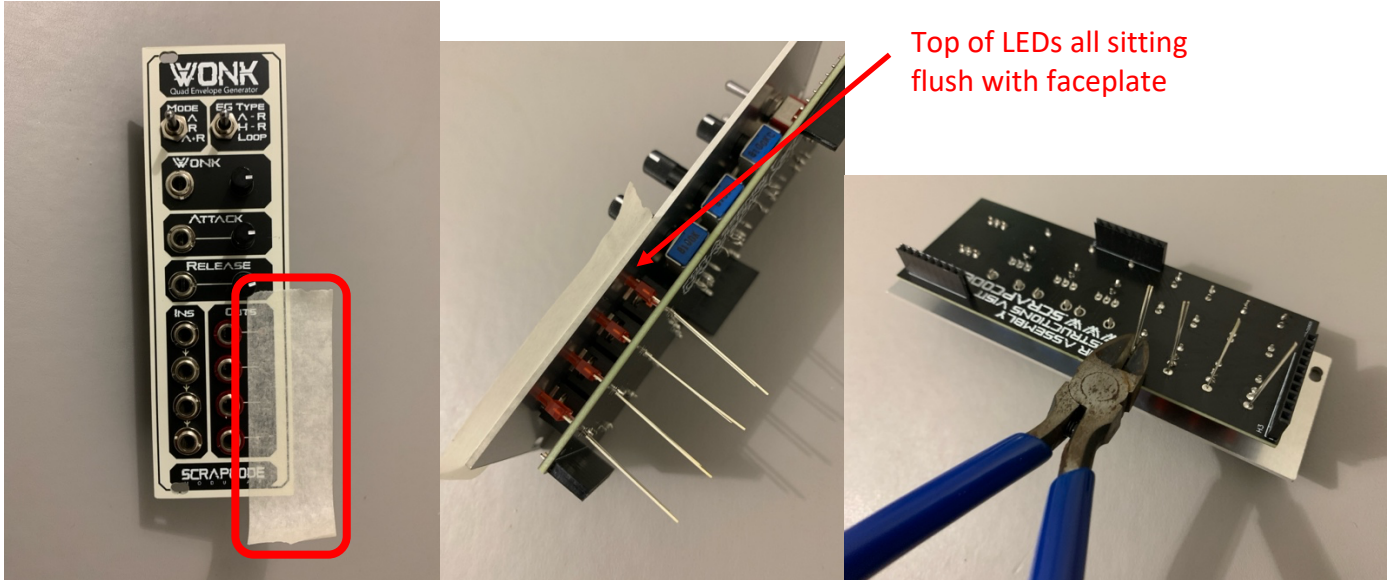
10 – FACEPLATE

Install the faceplate. The switches will need to be in their central positions. Use the hexagonal nuts placed aside earlier on the switches, and the knurled nuts on the jacks. Red nuts should be used on the output jacks. Tighten all nuts, being careful not to over-tighten.



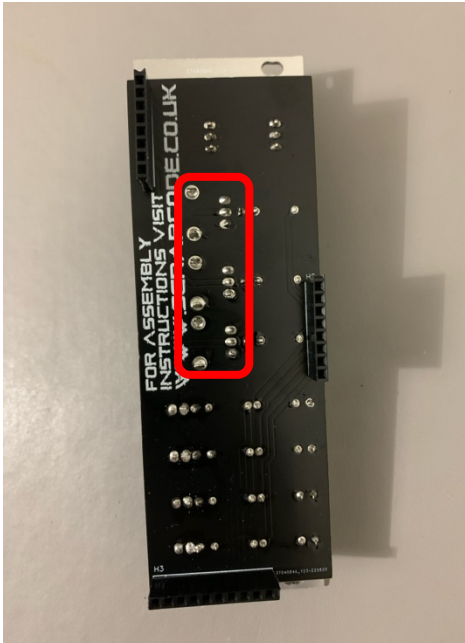
11 – LEDs

Place a piece of masking tape on the front of the module, covering all of the LED holes. Gently press each LED against this tape, and then run a finger over the front of the faceplate to ensure that all LEDs are sitting flush. Solder the LEDs (LED1-4) in place, then clip the excess off the legs and remove the masking tape.



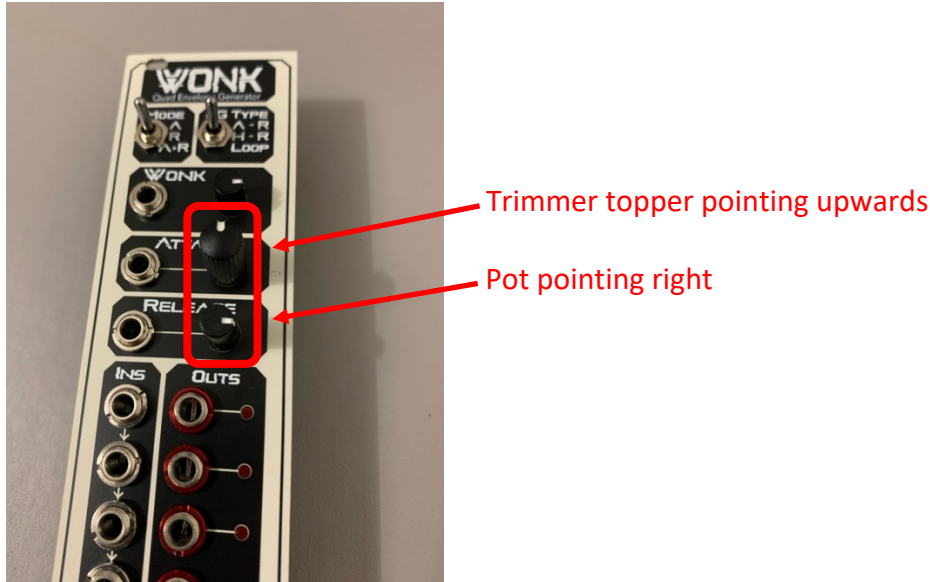
12 – POTS

Check each pot is correctly lined up with the faceplate and twists easily in its hole. Wiggle any which do not until they are in a better position. Solder them (VR1-3) in place.



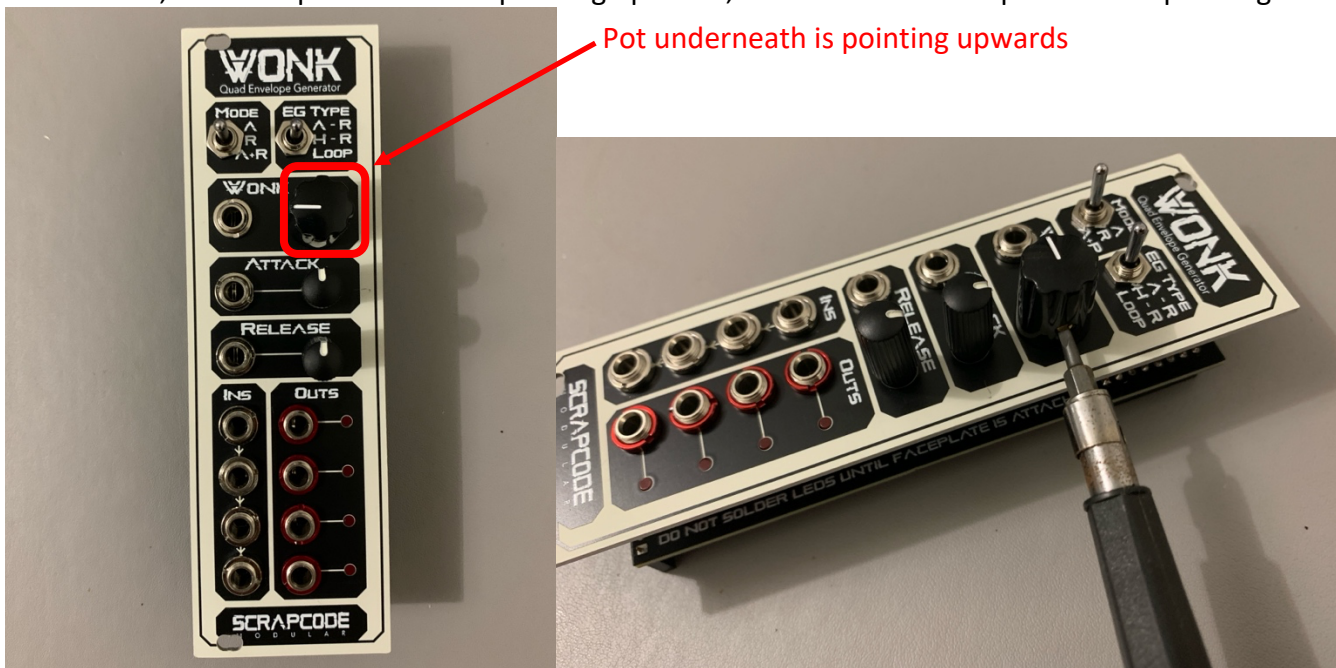
13 – TRIMMER TOPPERS

Gently install the trimmer topplers onto the Attack and Release pots (not the Wonk pot), ensuring that the markings are positioned 90° anticlockwise to those on the pots. To achieve this, twist both pots so they are pointing to the right, and then install the trimmer topplers pointing upwards.



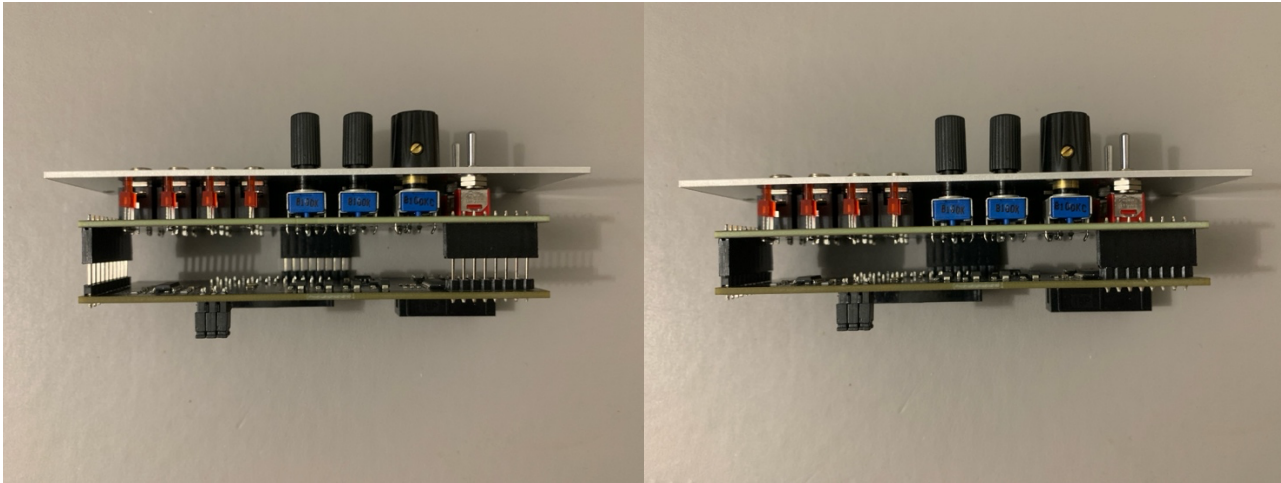
14 – PLASTIC KNOB

Loosen the screw on the plastic knob, then insert the brass adapter ring. Install the knob on the Wonk pot, leaving a small amount of space between the bottom of the knob and the faceplate, and then tighten the screw. Make sure that the marking on the knob is positioned 90° anticlockwise to the one on the pot. To achieve this, twist the pot so that it is pointing upwards, and then install the plastic knob pointing left.



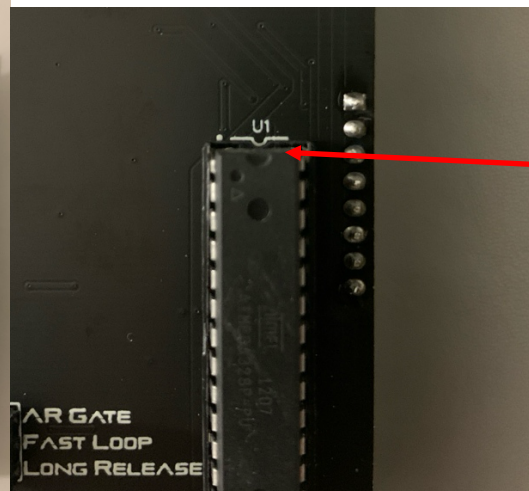
15 – PCBs

Line up the header pins on the two PCBs and gently push them together.



16 – INSERT MICROCONTROLLER

Gently insert the microcontroller chip into the IC socket (U1), ensuring that it is the right way around.



The dimples on the chip, silkscreen and socket should all be aligned

CONGRATULATIONS
YOUR WONK IS NOW READY TO GO

Before switching it on, please make sure that it is securely installed in your rack, and that it has been properly connected to a suitable Eurorack power supply.