

# HEXAPHON quick guide

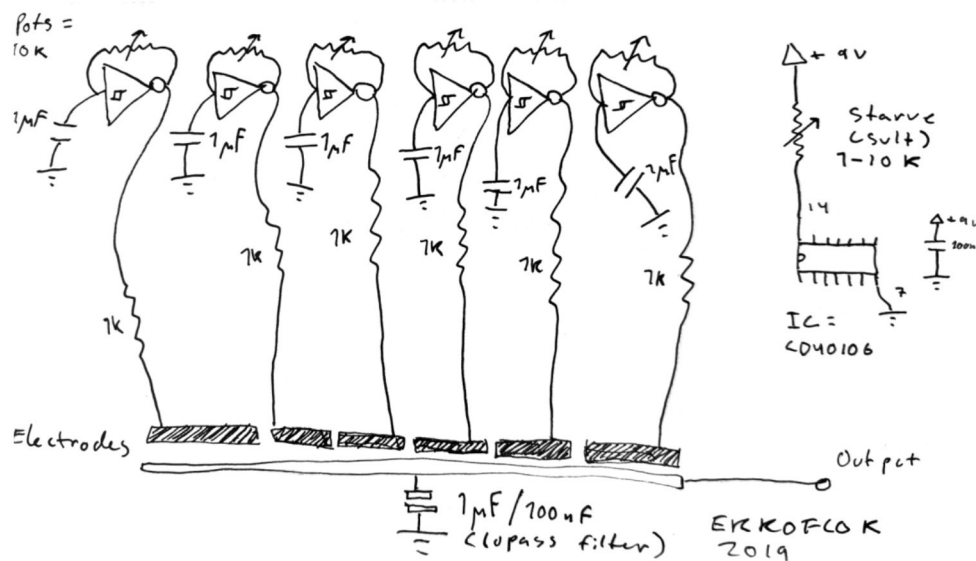
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This doc is meant to be a quick guide - please read the full documentation before attempting to build the Hexaphon:

<https://ekkoflok.dk/hex.php>

Feel free to watch the assembly guide as well:

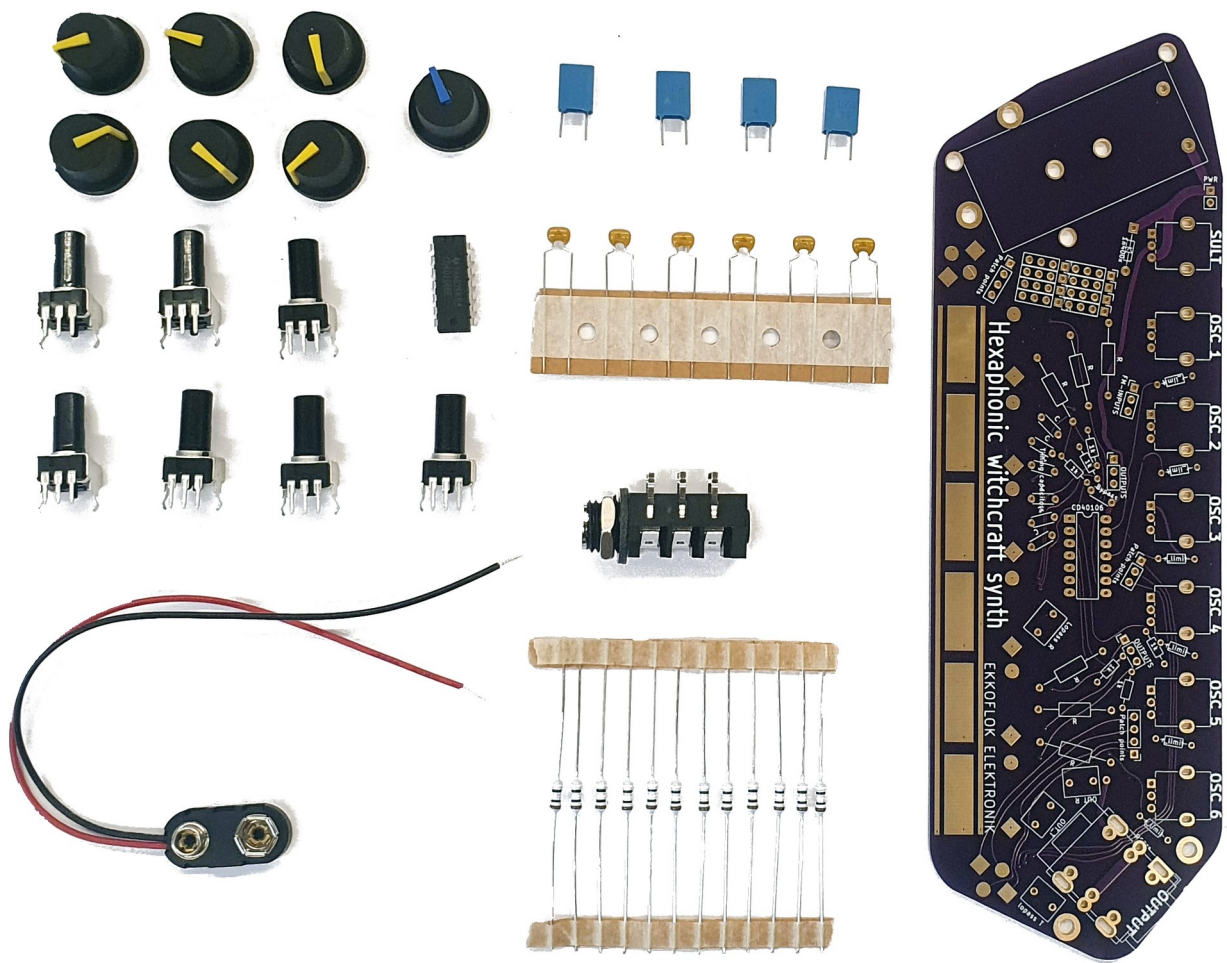
<https://youtu.be/aX8CBH6oHXs>



## Component overview

- Red - timing capacitors - use something between 100nF and 1µF, larger values give lower frequency - it is possible to use different values for each voice.
- Yellow - output capacitors, I prefer values between 100nF and 1µF, feel free to experiment with different values.
- Green - 1k resistors (909 ohm resistors provided in the kit)
- Purple - I like 100k potentiometers for the oscillators and 10k for the starve pot (left-most).





## BOM – Bill of Materials

Most of the components have non-critical values - feel free to experiment with the circuit if you feel adventurous!

There is room for more components and provision is made for some "patch points". These are intended for experimenters who might wish to extend the circuit in some way.

- Limiting resistor „r-limit“ – 909r (or 1k) (brown black red) – this one sets the maximum frequency - use a higher value if the oscillator goes into ultra sonic territory
- Resistors „R“ – 909r (or 1k) (red black red)
- Timing capacitors – 1μF (105)
- Low pass capacitor – 100nF (104) or 1uF (105)
- Output capacitor – 100nF - 1μF (105) – the one right next to the jack socket, marked "lopass "
- Potentiometers – 10k to 100k (larger resistors mean larger range)
- Chip / IC – CD40106BE (Hex inverting Schmitt trigger)
- Battery clip – PP3 9v battery connector,
- Cable tie or rubber band for fixing
- Knobs
- Jack socket – TRS