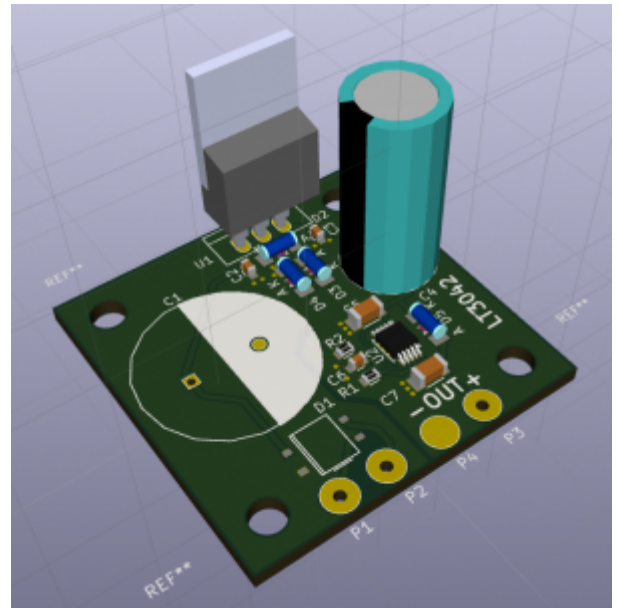


# Ultra Low Noise Linear Power Supply, using LT3042



Small power regulator PCB, with AC inputs and DC output.

- 78xx as a pre-regulator, to reduce power loss on the LT3042 and to increase the max. input voltage
- Output voltage: 0-15V
- Output current: max. 200mA
- Input voltage: max. 20VAC

## Setting the Voltage

The LT3042 has a very nice way to set the output voltage. Instead of using an internal voltage reference and an external voltage divider, a constant current is driven through a user settable resistance, which is then the reference voltage!

$$U_{\text{out}} = 100\mu\text{A} * R1 || R2$$

e.g. with  $R1 || R2 = 50\text{k}\Omega$ ,  $U_{\text{out}} = 5\text{V}$

## Schematic

[rauscharmest-netzteil-5v.pdf](#)

## KiCad project

[uln-power-supply-kicad.7z](#)

## OSH-Park

You can directly order this PCB from [oshpark.com](http://oshpark.com)



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