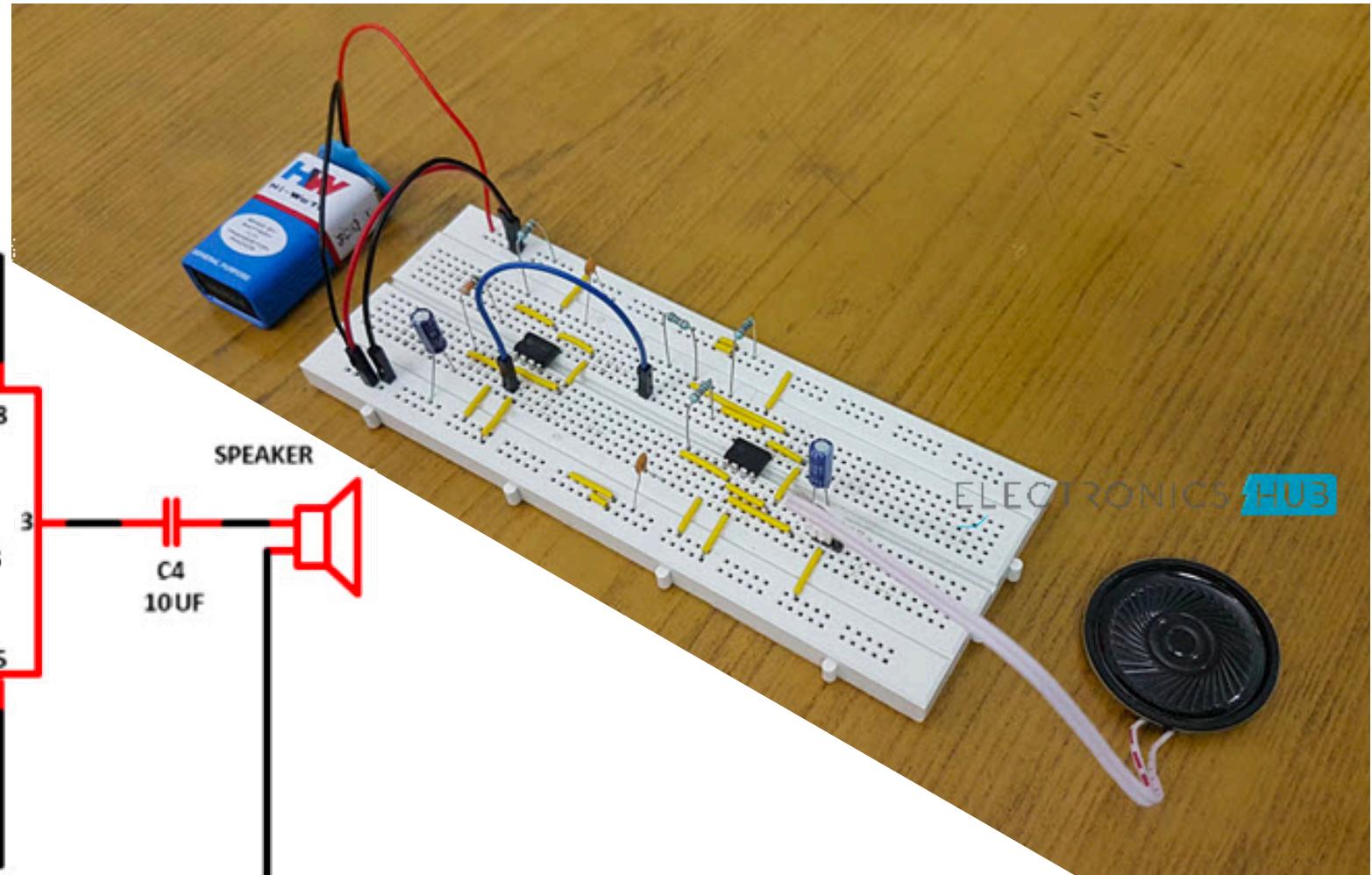
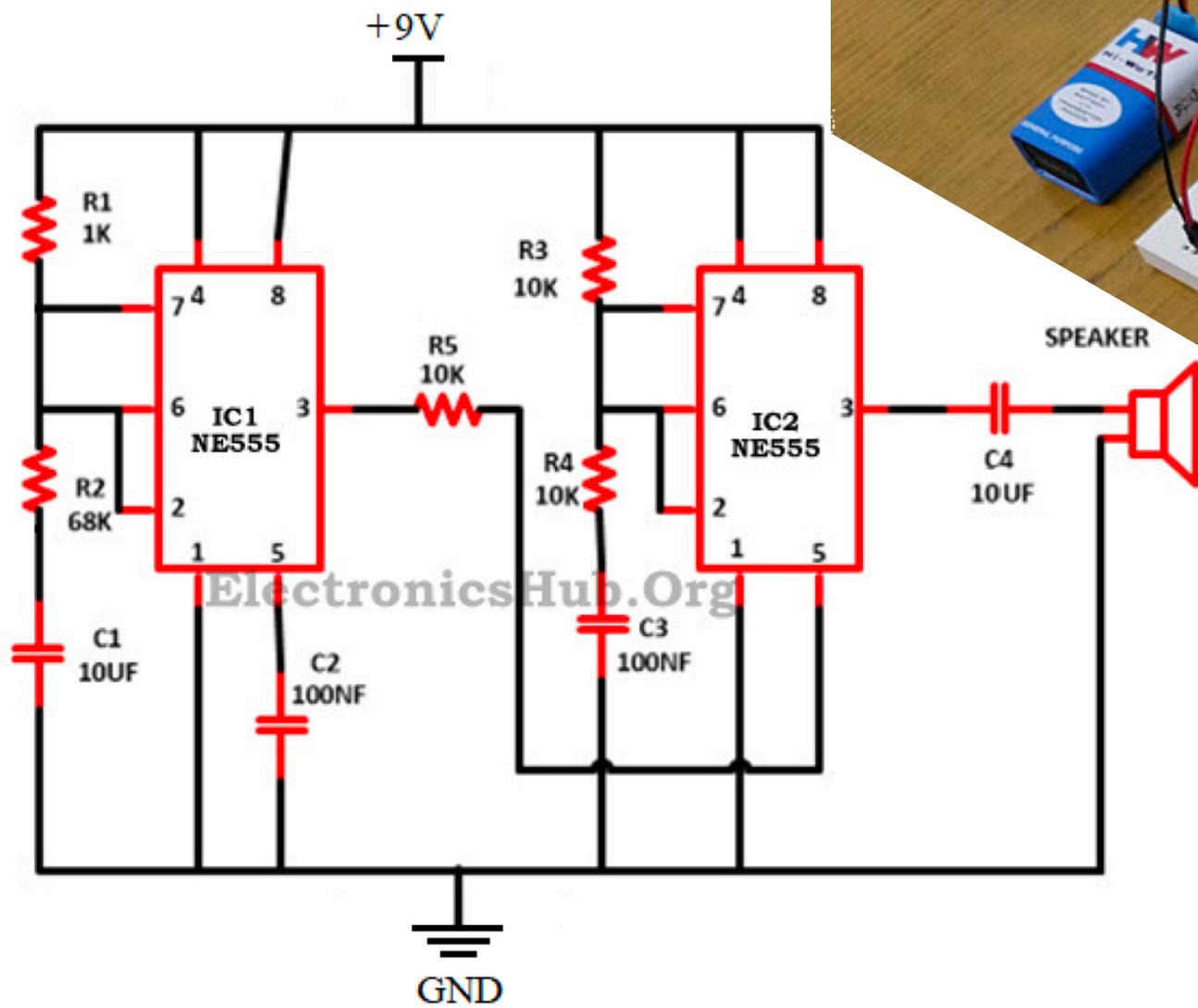


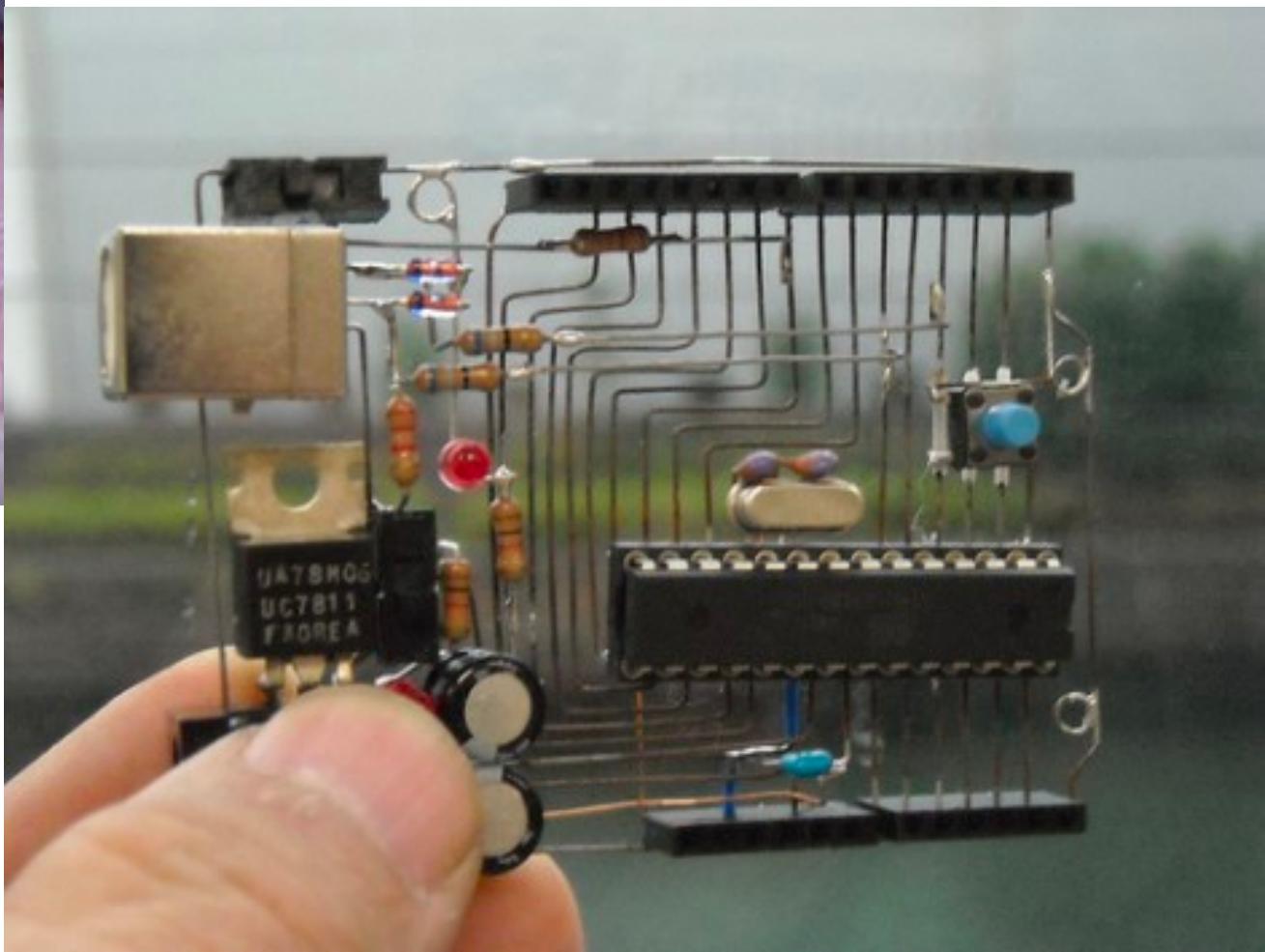
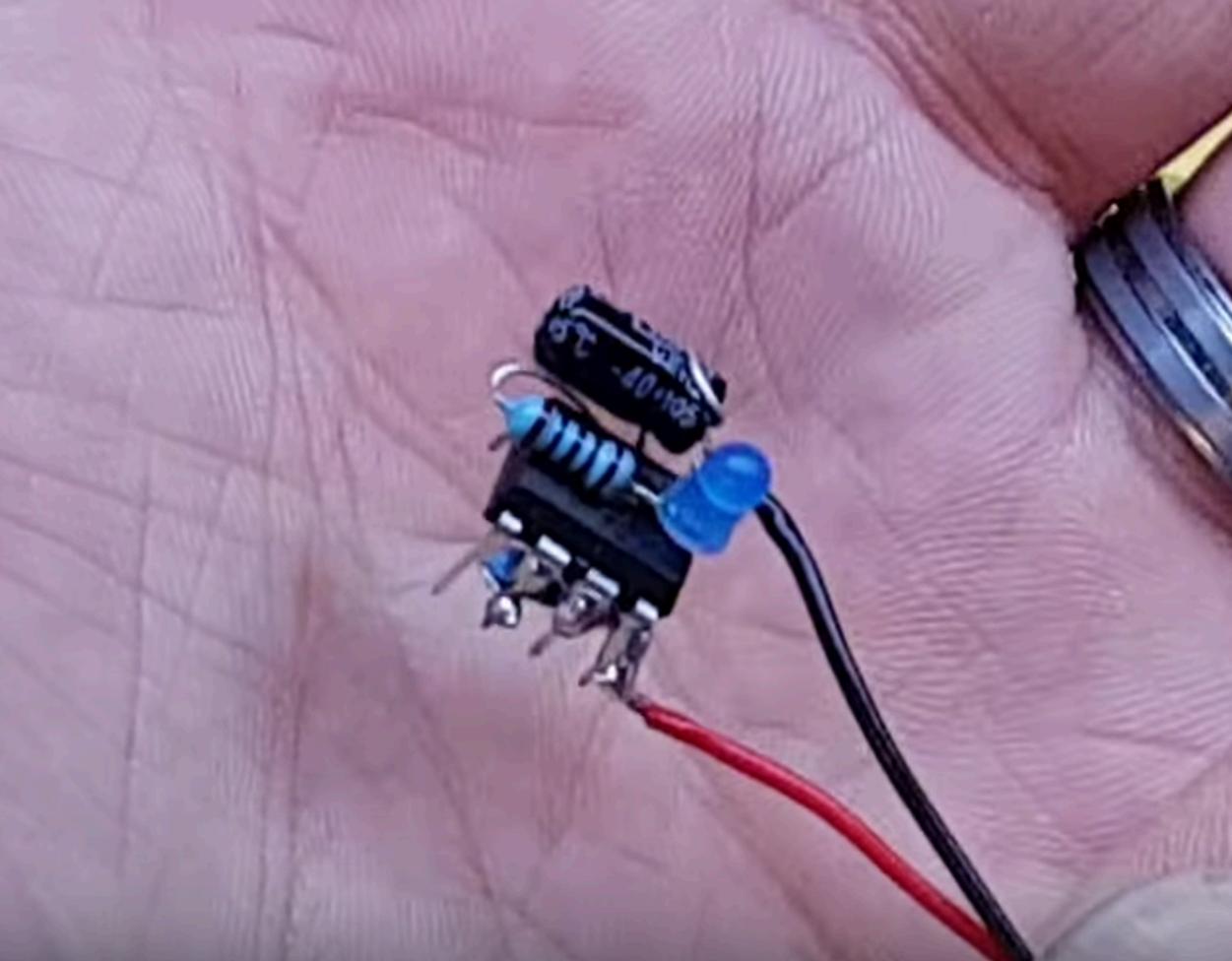
DIY: Jednoduchý plošný spoj

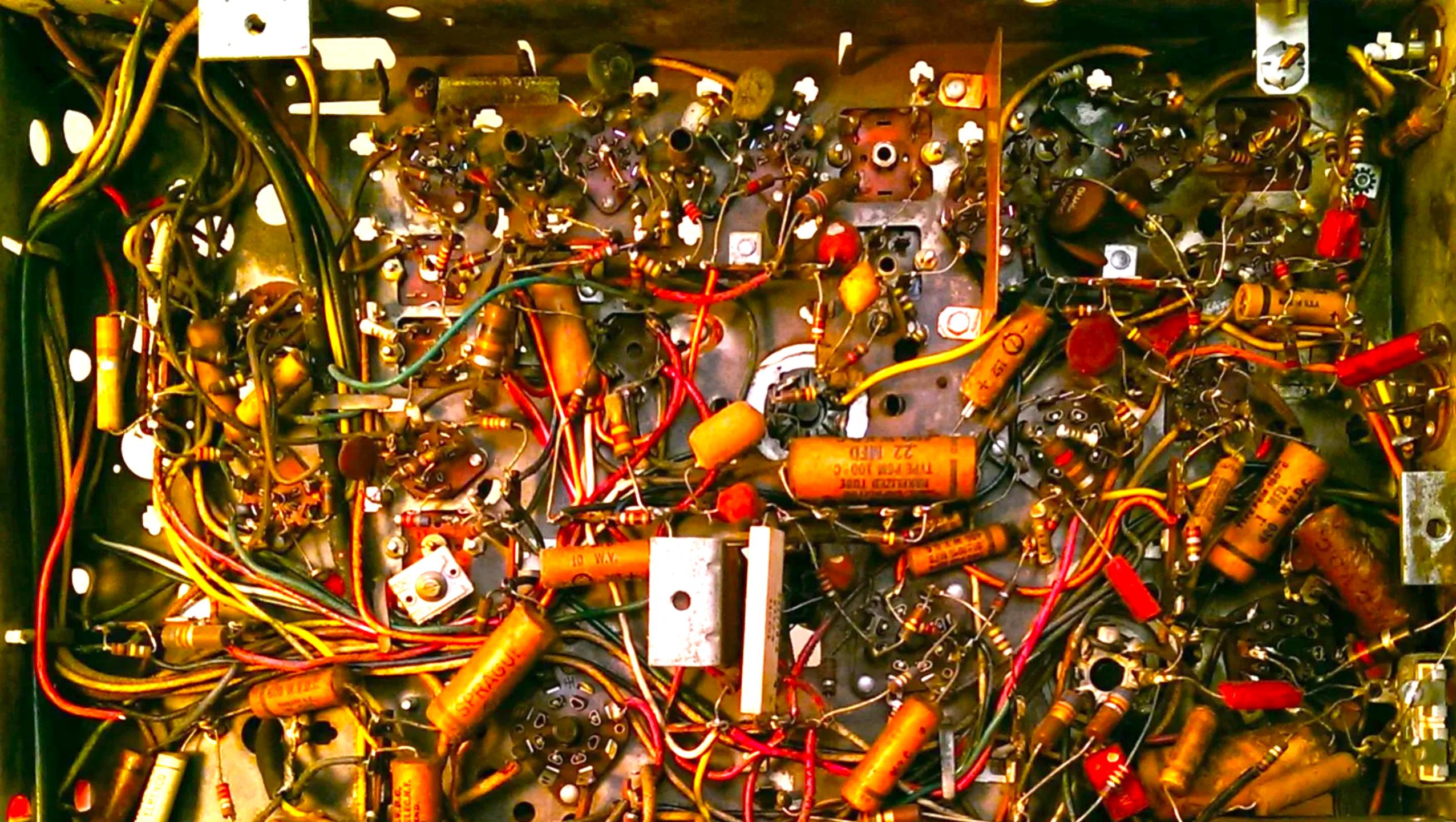
Ing. Gabriel Války, PhD.

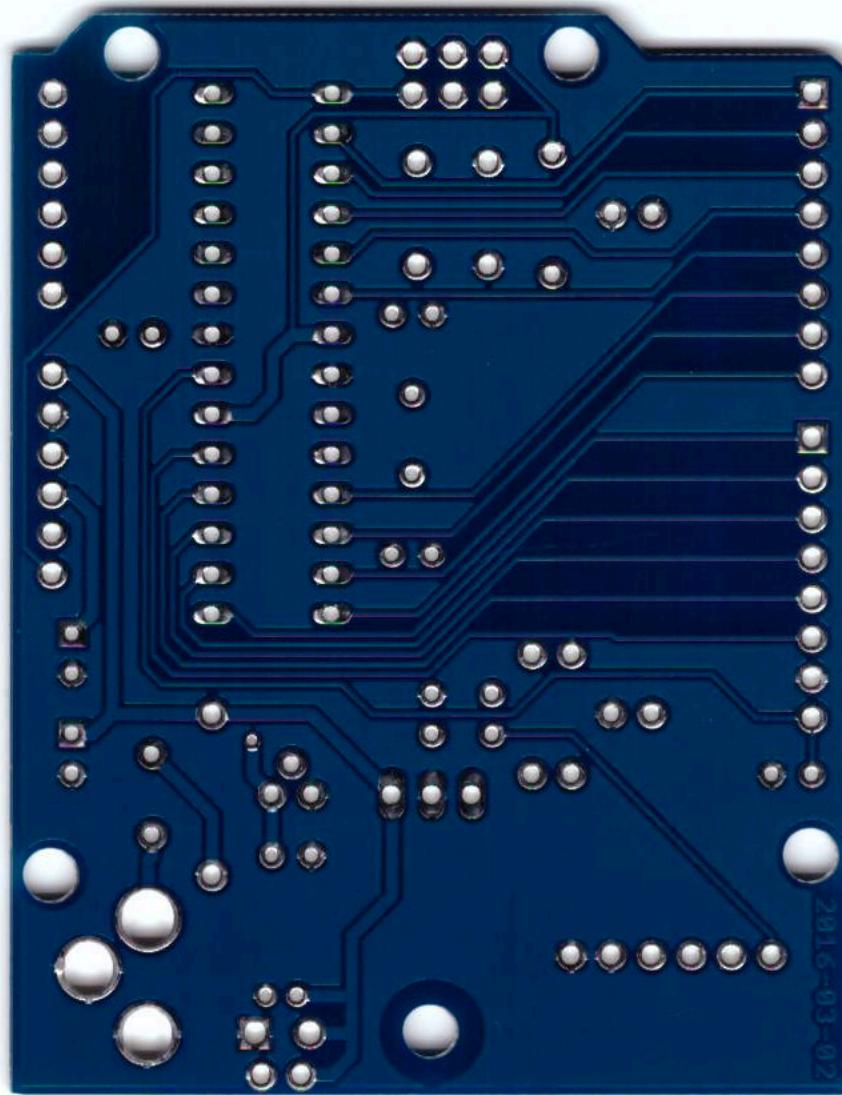
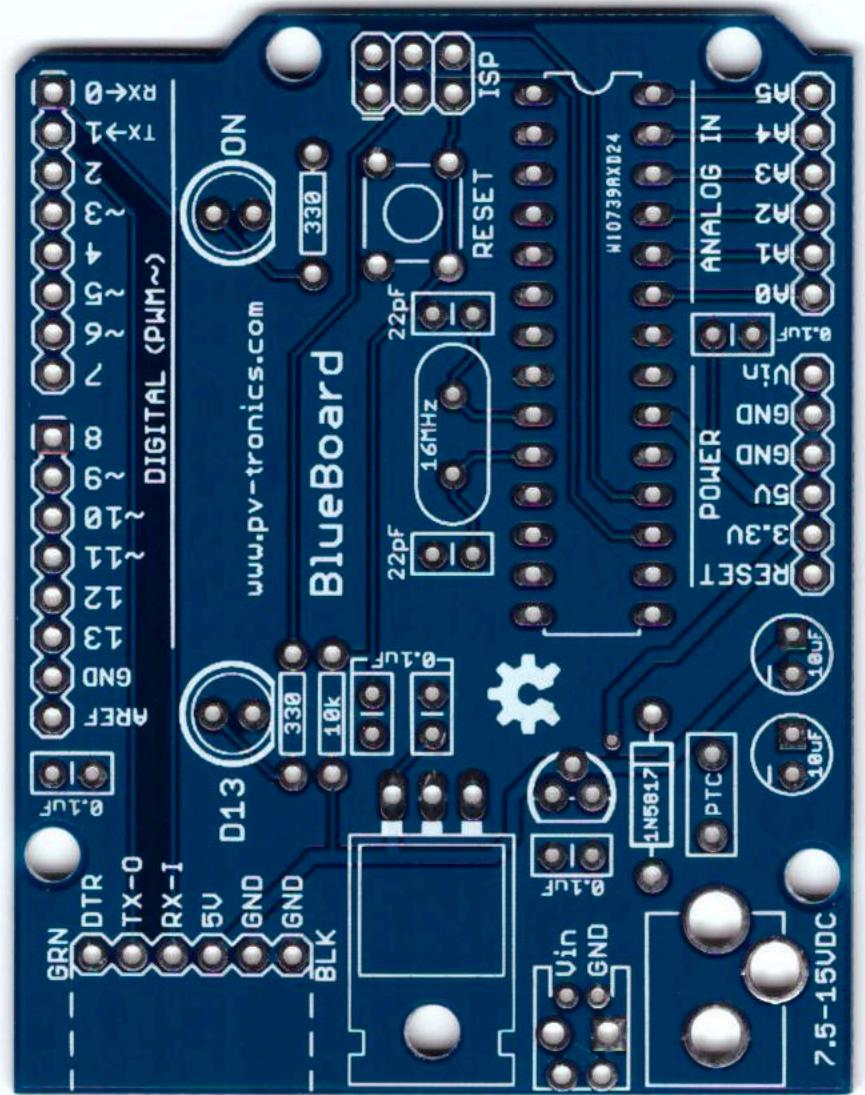
<http://L.valky.eu/dps1>

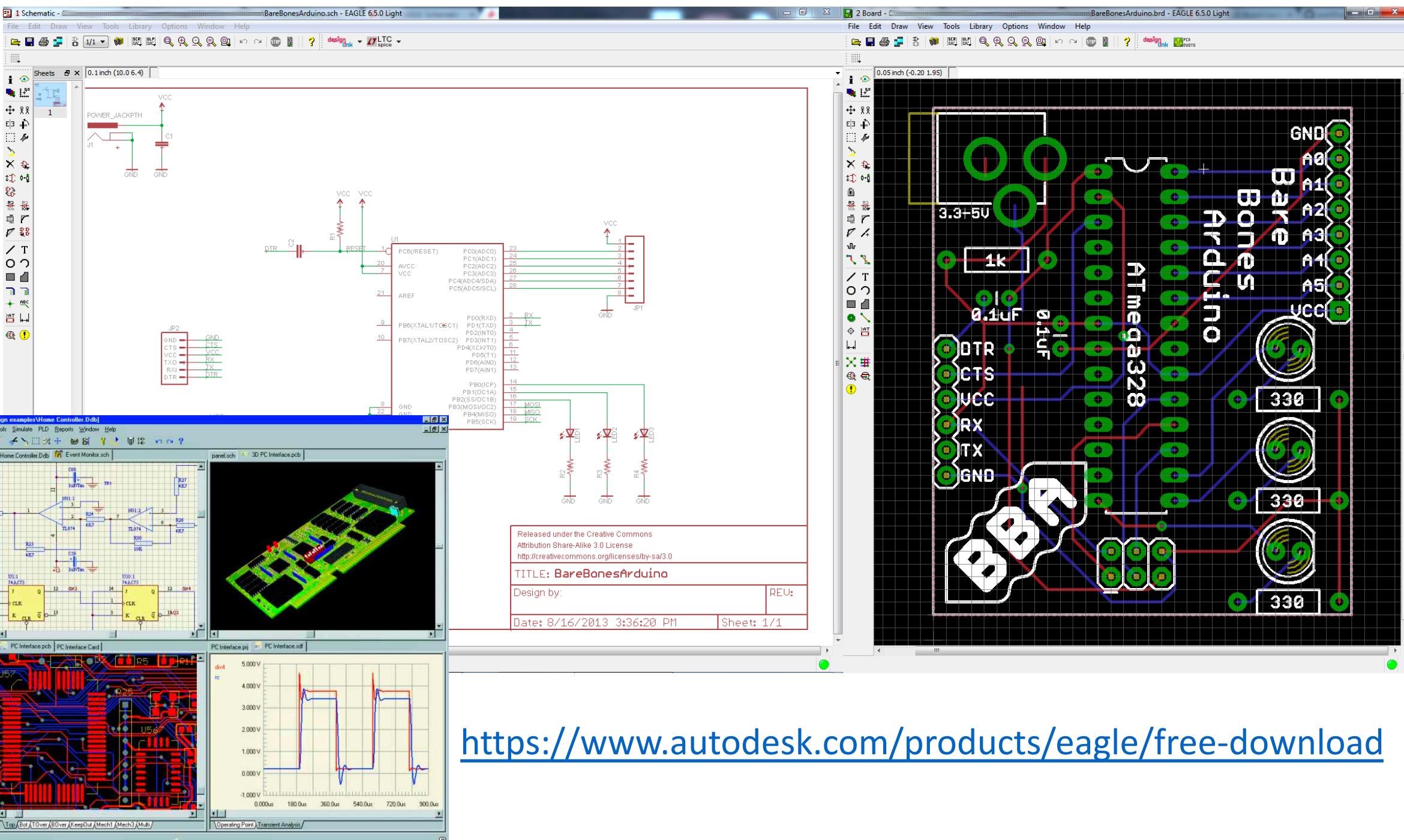


<https://www.electronicshub.org/police-siren-circuit-using-ne555-timer/>



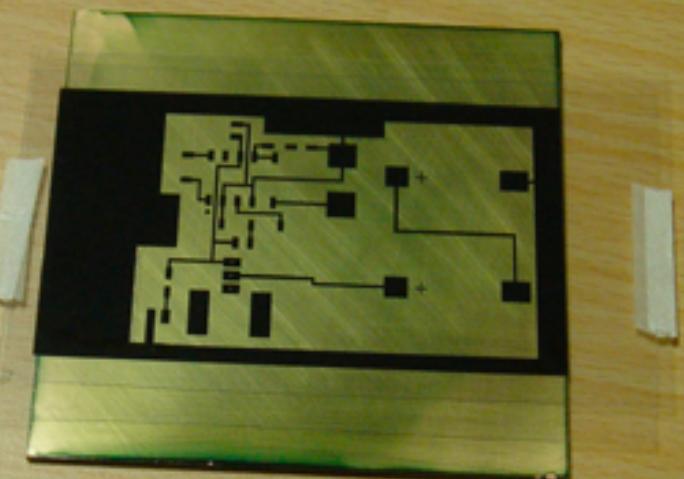




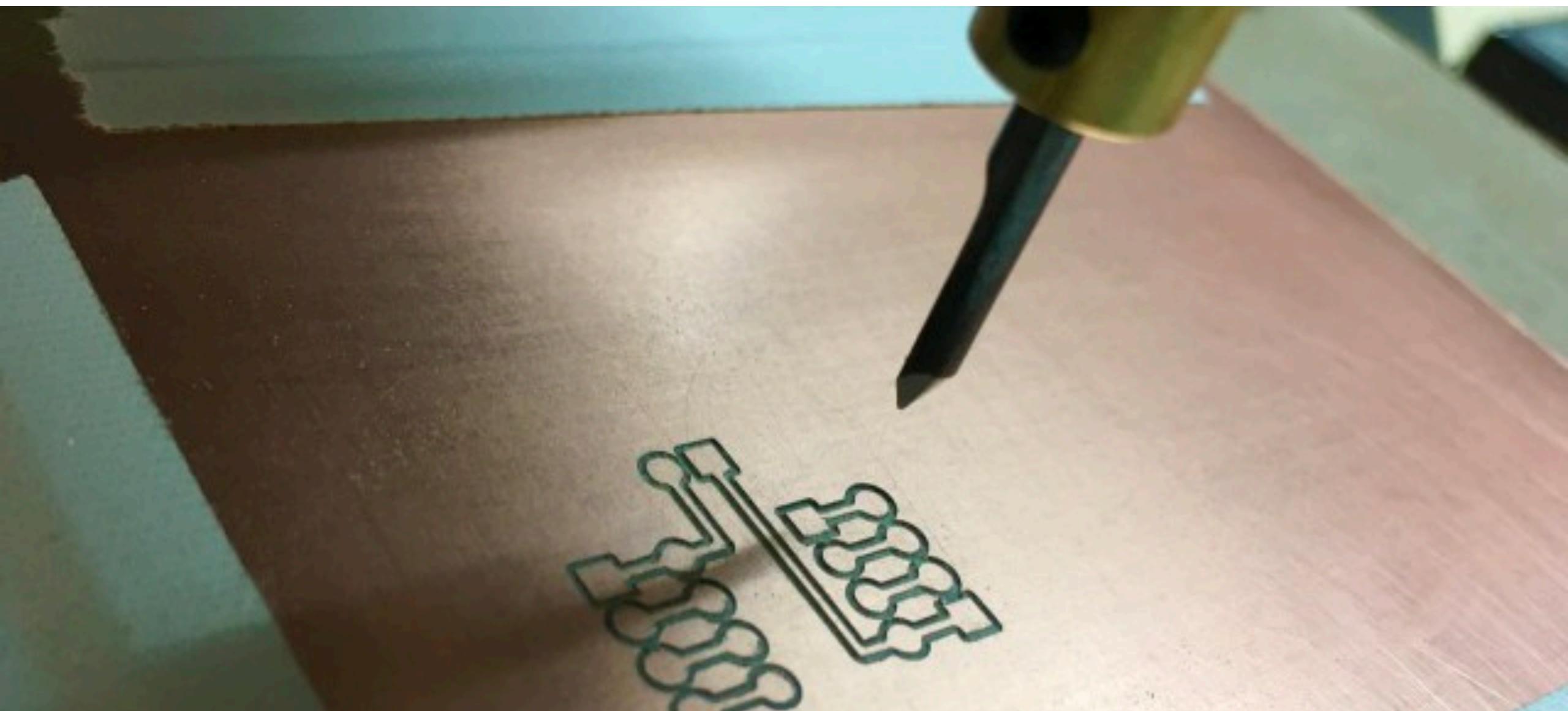


Výroba DPS

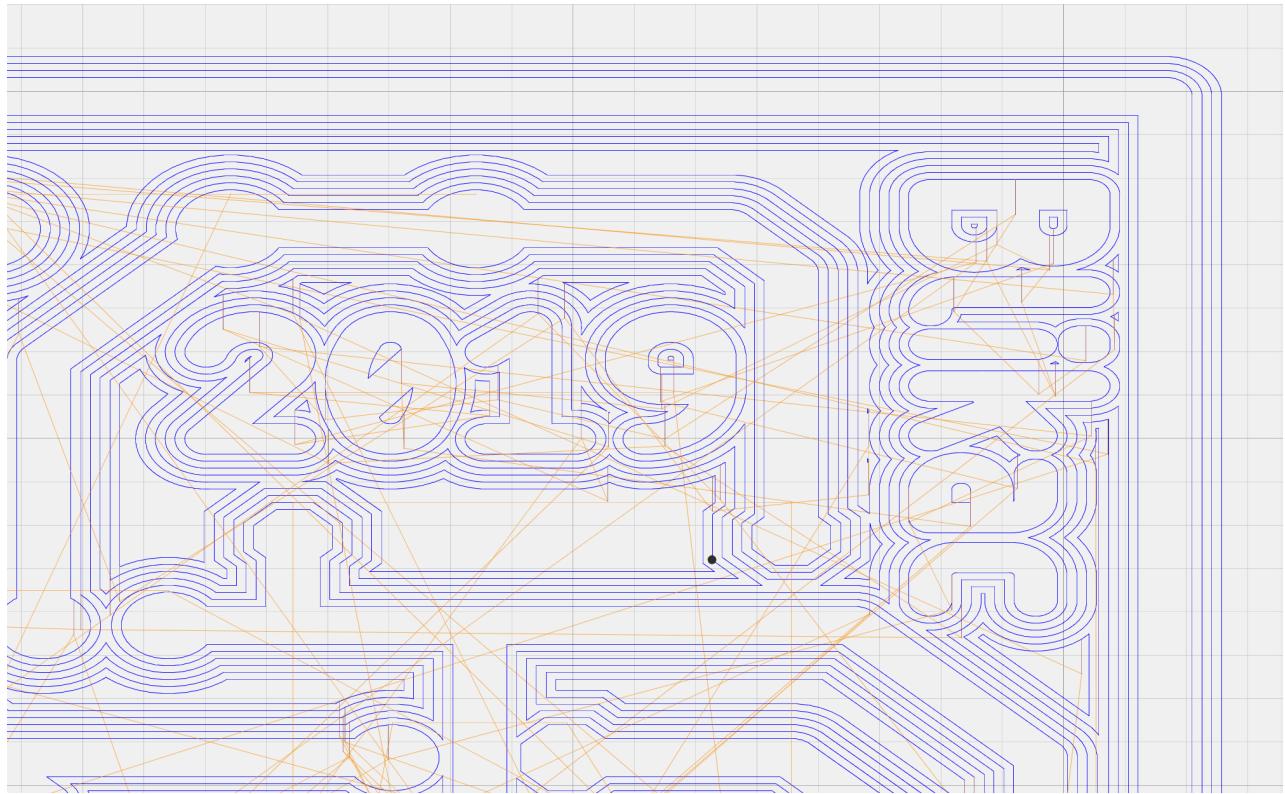
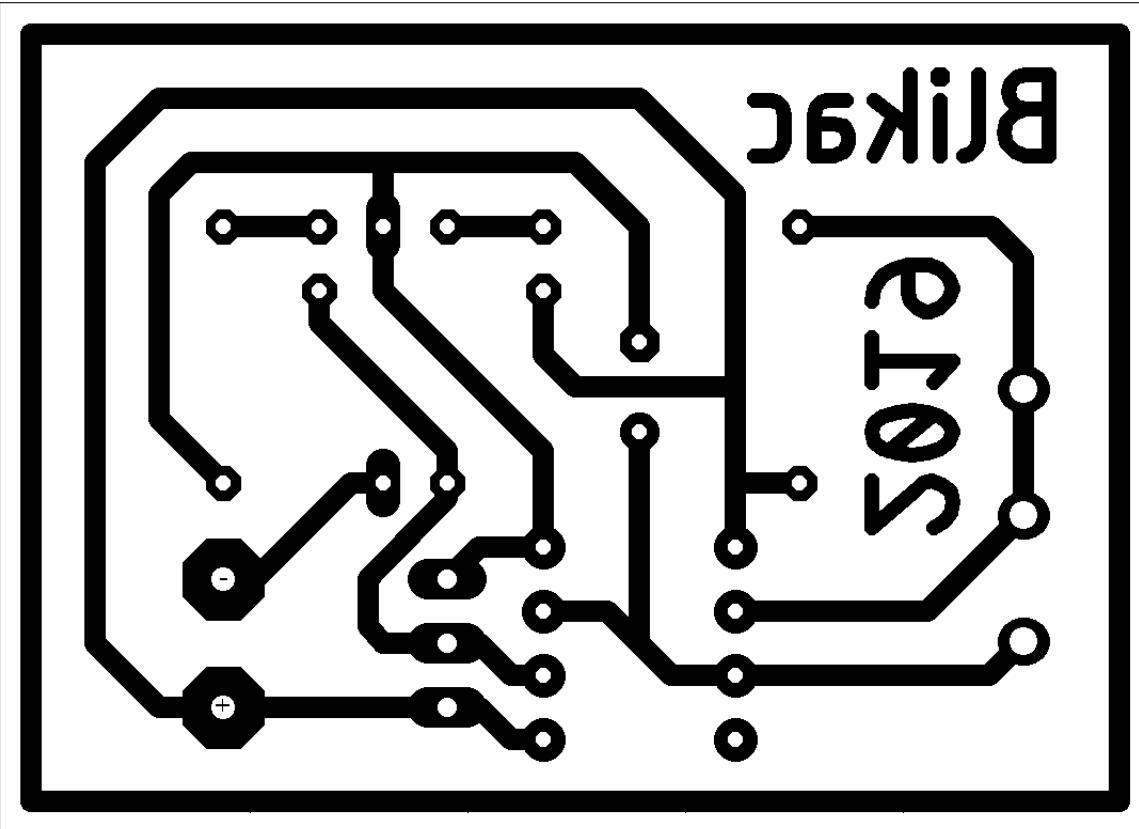
**PCB TONER
TRANSFER
METHOD**



Výroba DPS – Isolation milling



G-Code



Blikač s časovacom NE555

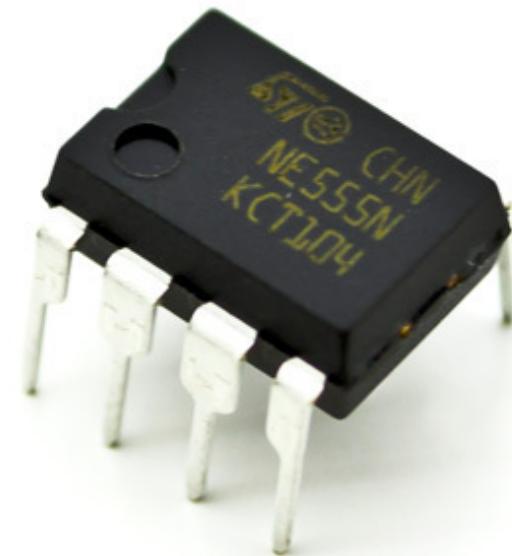
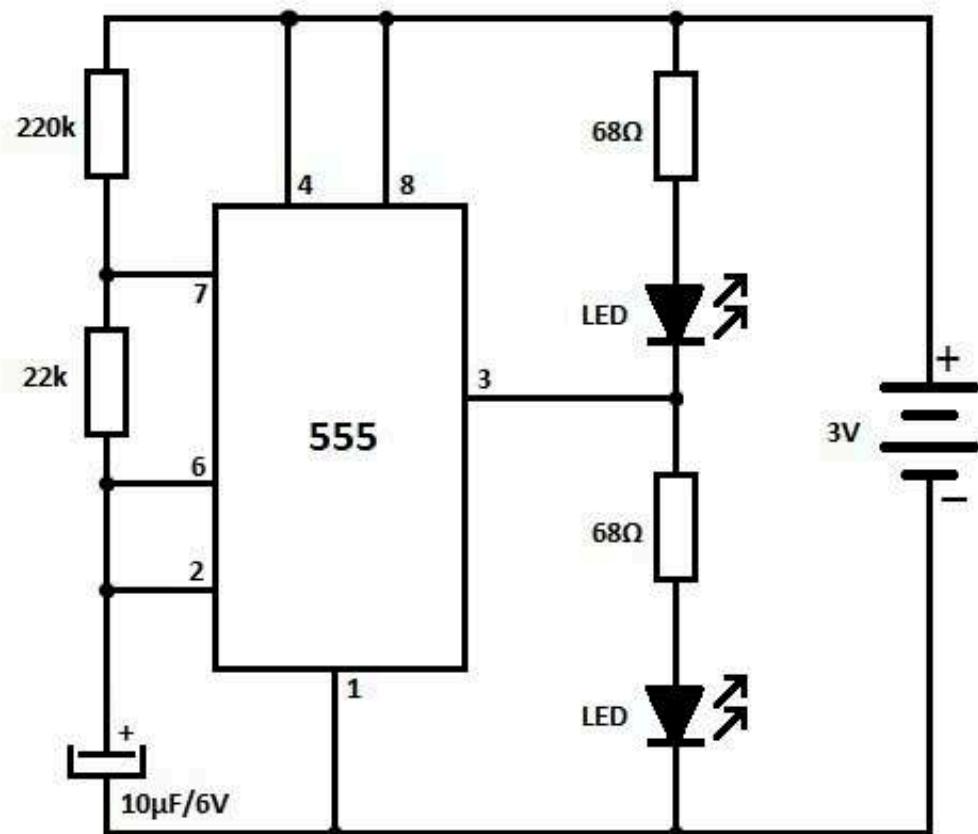
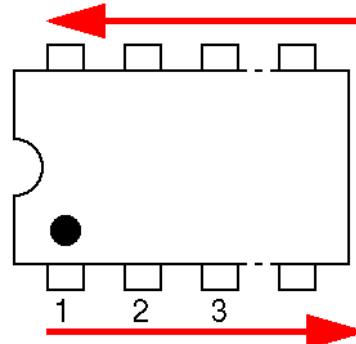
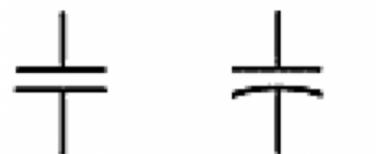


figure 3

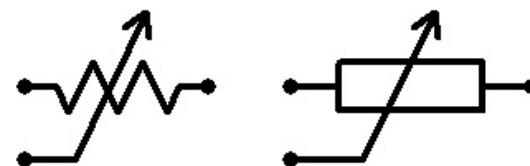




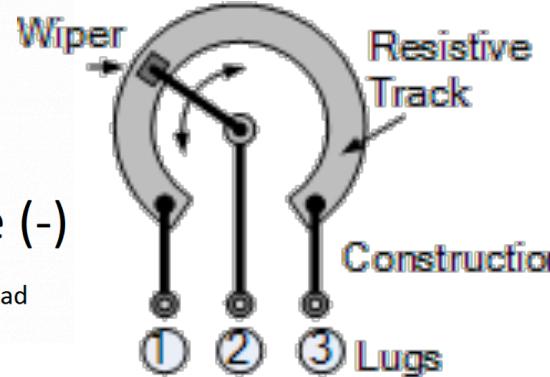
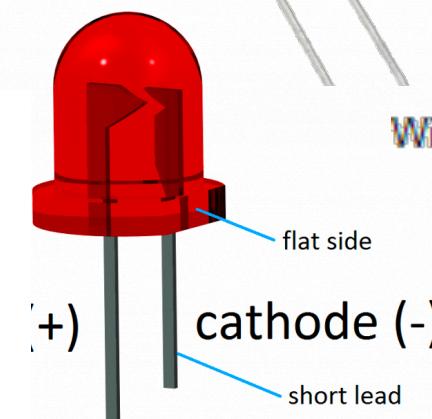
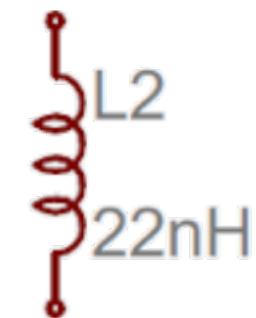
R1
100 Ω



Anode
Cathode



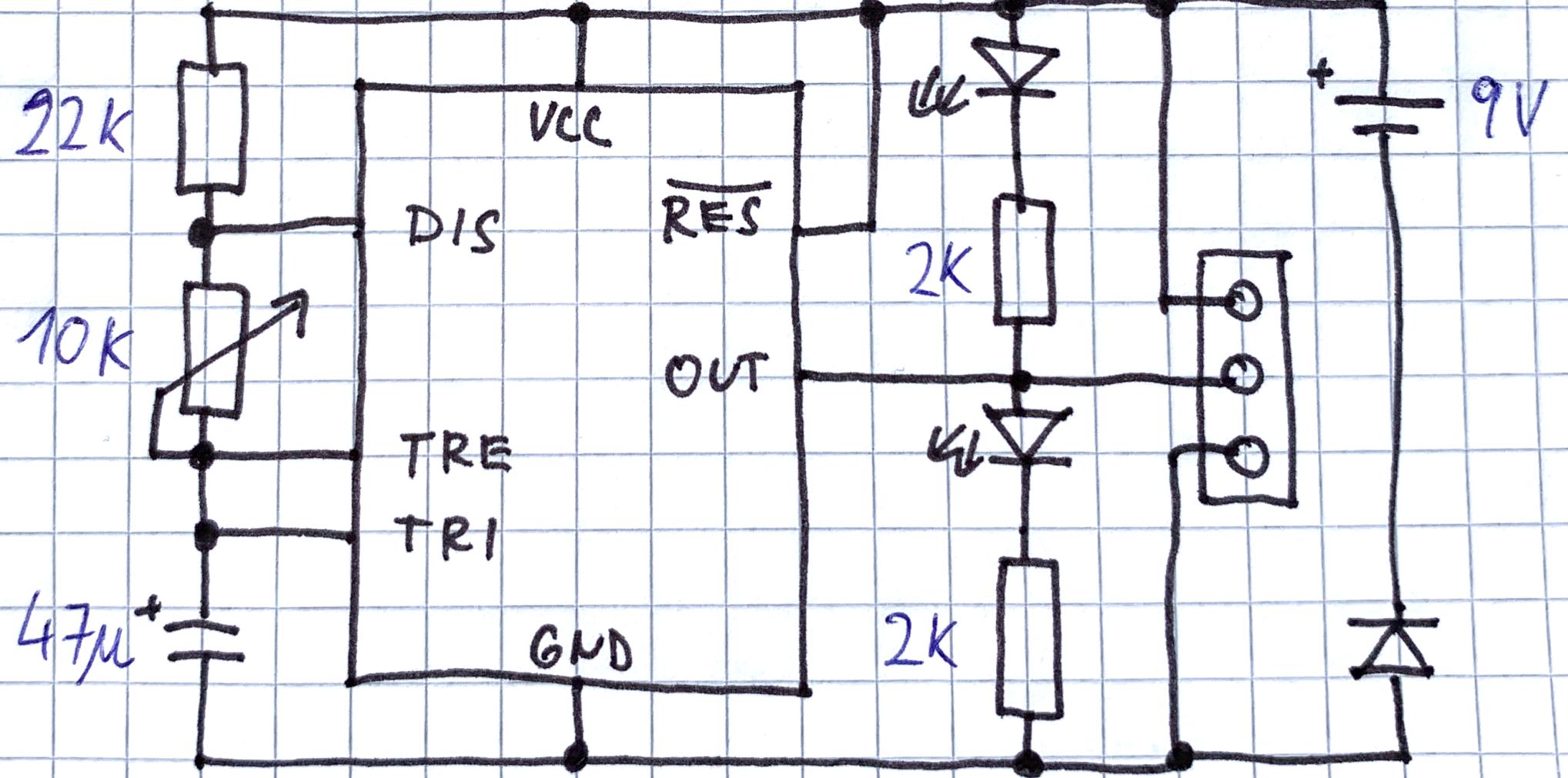
R2
1k Ω



1N4148

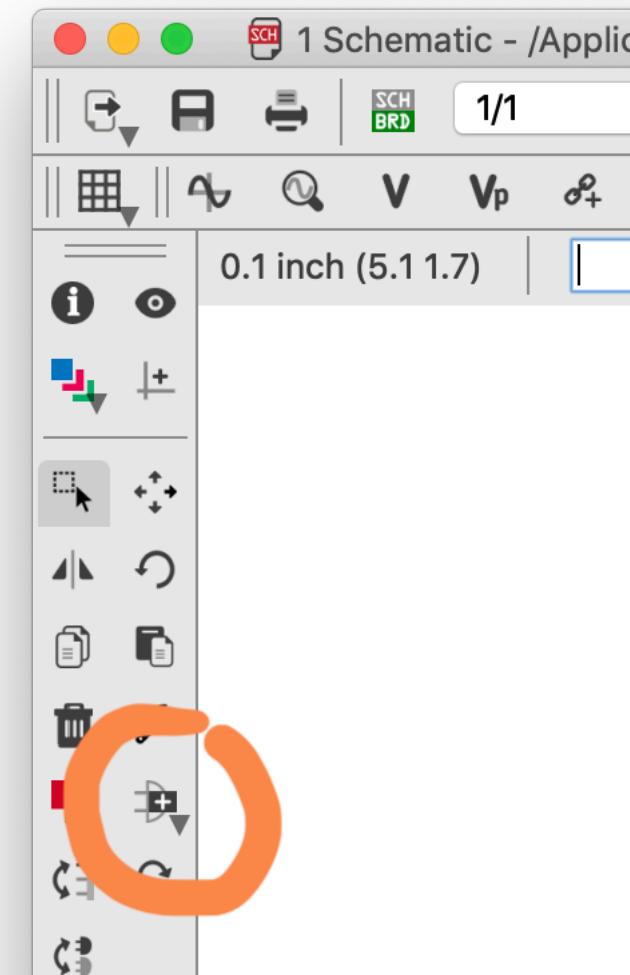
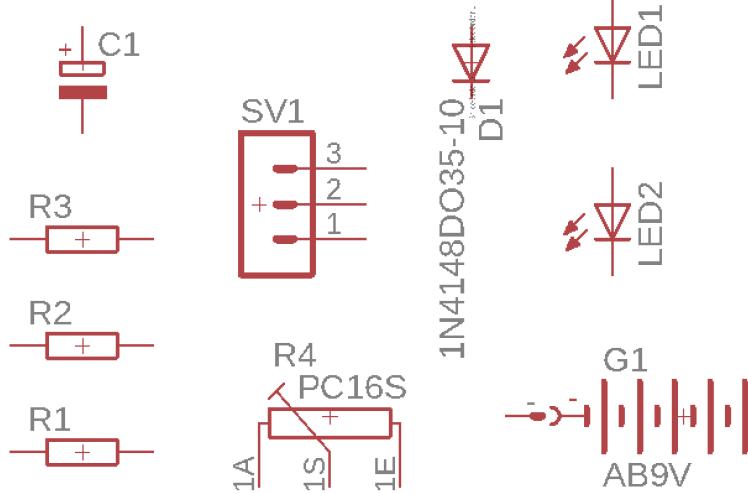
1N914

1N4007



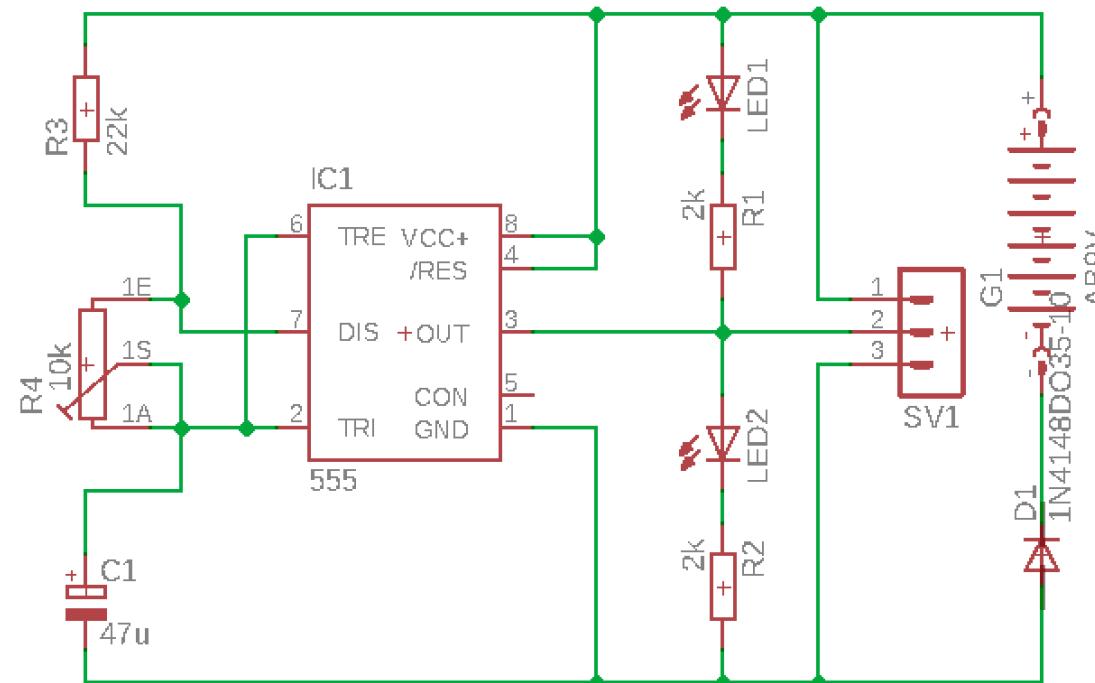
Modelujeme

- Prázdna Schéma – EAGLE -> File -> New -> Schematic
- **U1: Pridanie súčiastok**
 - <https://github.com/sparkfun/SparkFun-Eagle-Libraries>
- U2: Zapojenie schémy
- U3: Návrh dosky
- U4: Optimalizácia
- U5: Export



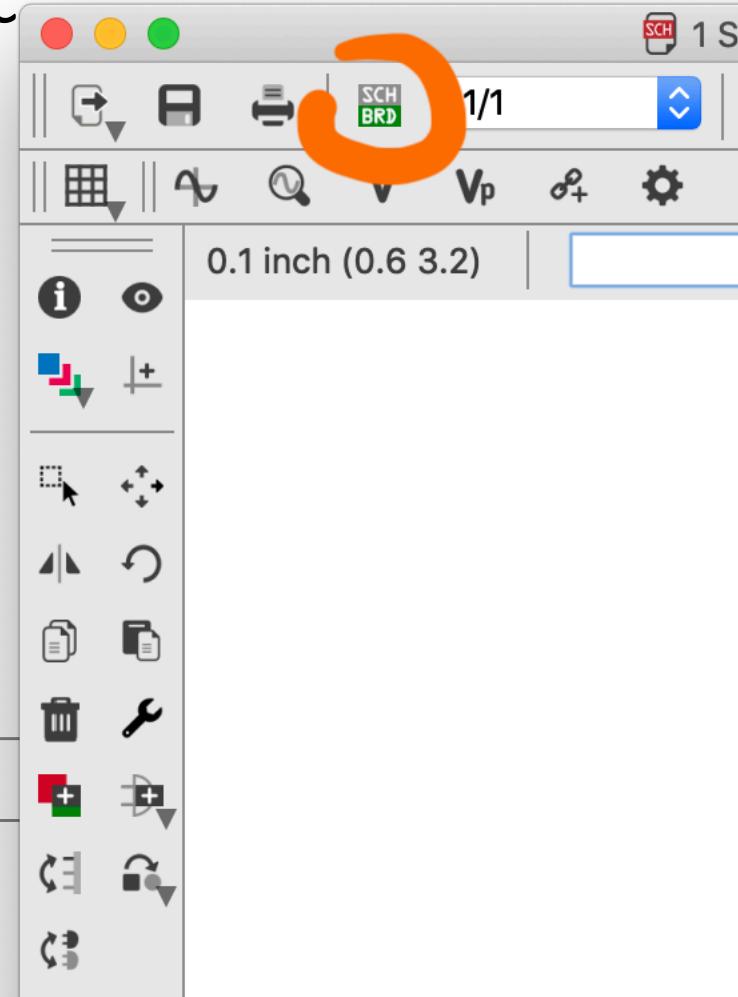
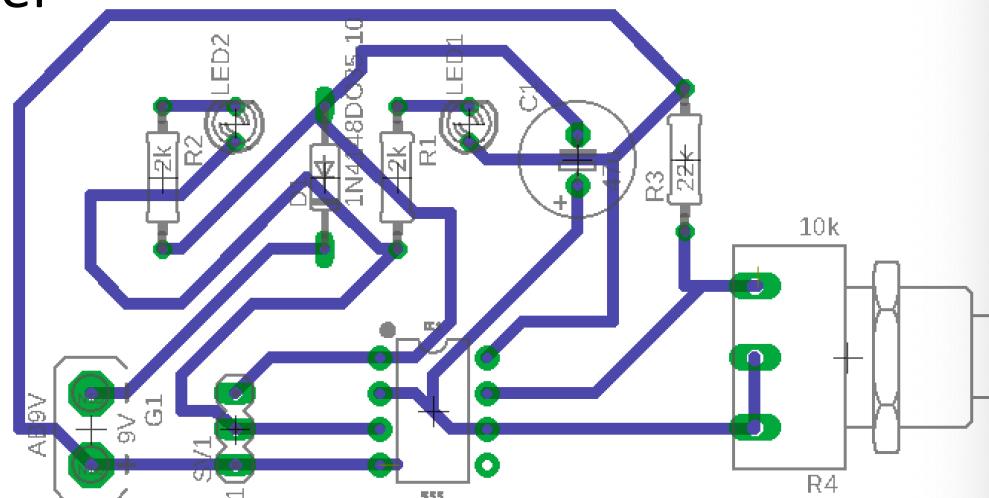
Modelujeme

- Prázdna Schéma – EAGLE -> File -> New -> Schematic
- U1: Pridanie súčiastok
- **U2: Zapojenie schémy**
- U3: Návrh dosky
- U4: Optimalizácia
- U5: Export



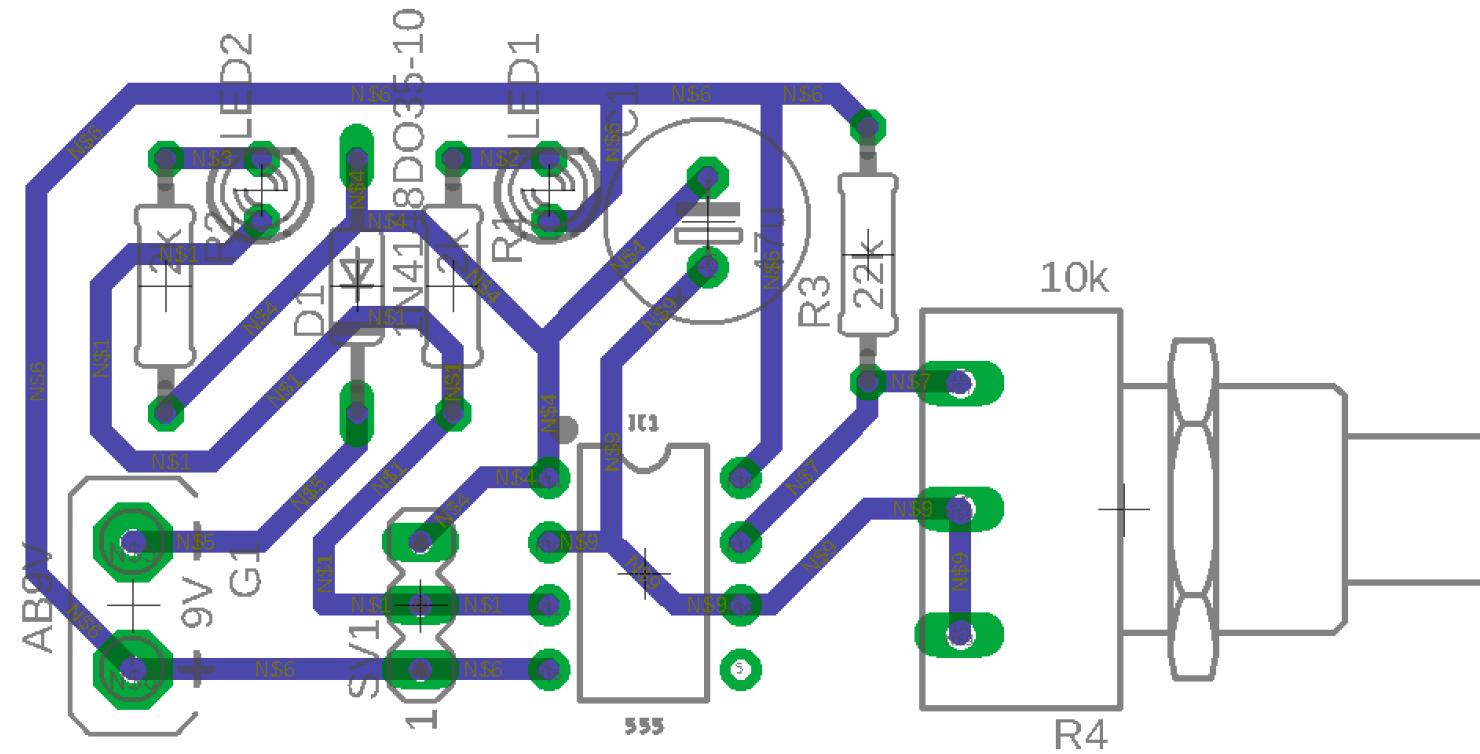
Modelujeme

- Prázdna Schéma – EAGLE -> File -> New -> Schematic
- U1: Pridanie súčiastok
- U2: Zapojenie schémy
- **U3: Návrh dosky**
 - 32 mil/bottom layer
- U4: Optimalizácia
- U5: Export



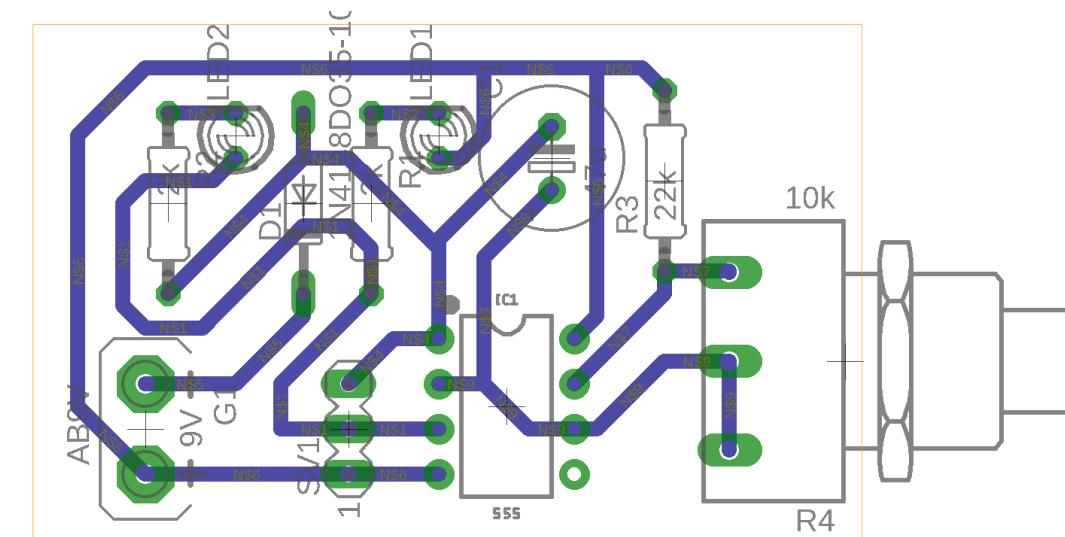
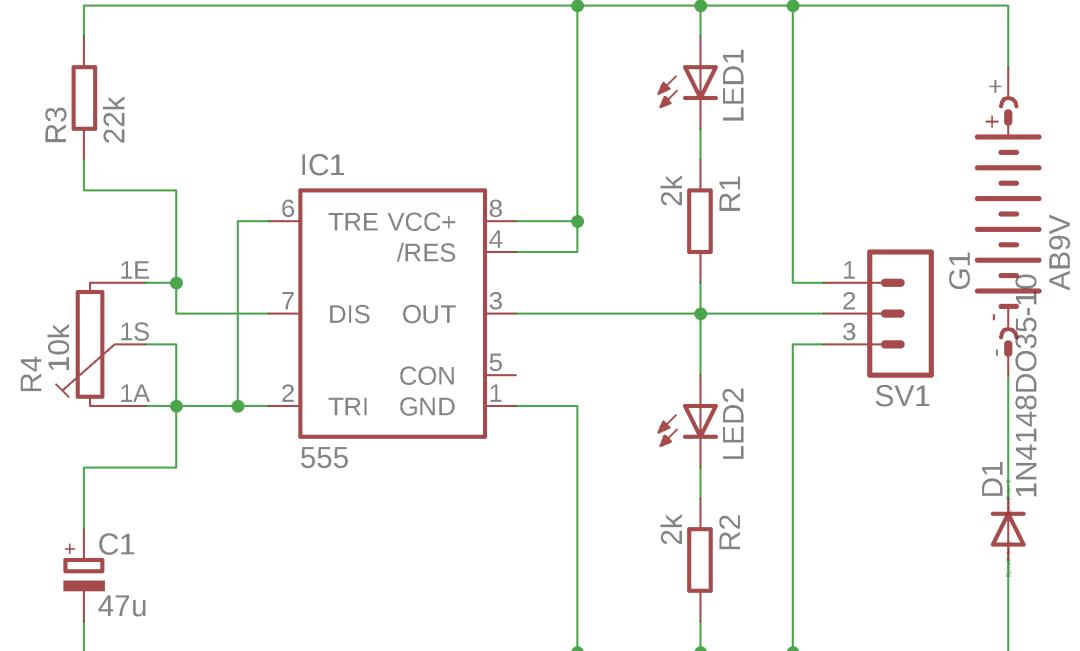
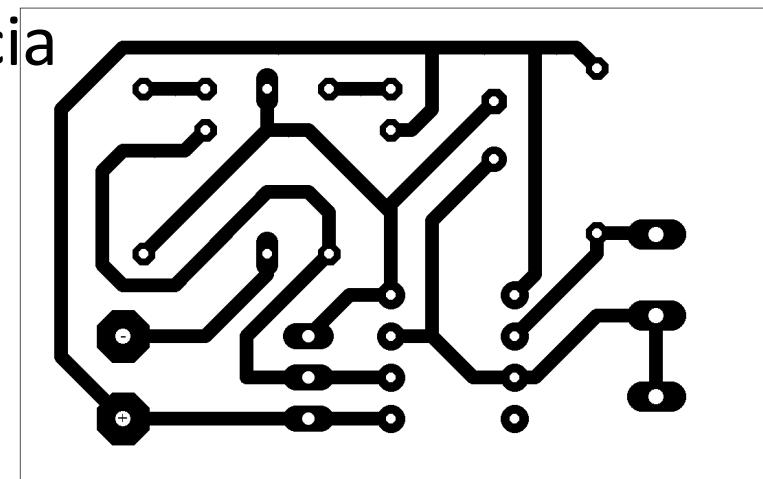
Modelujeme

- Prázdna Schéma – EAGLE -> File -> New -> Schematic
 - U1: Pridanie súčiastok
 - U2: Zapojenie schémy
 - U3: Návrh dosky
 - **U4: Optimalizácia**
 - U5: Export



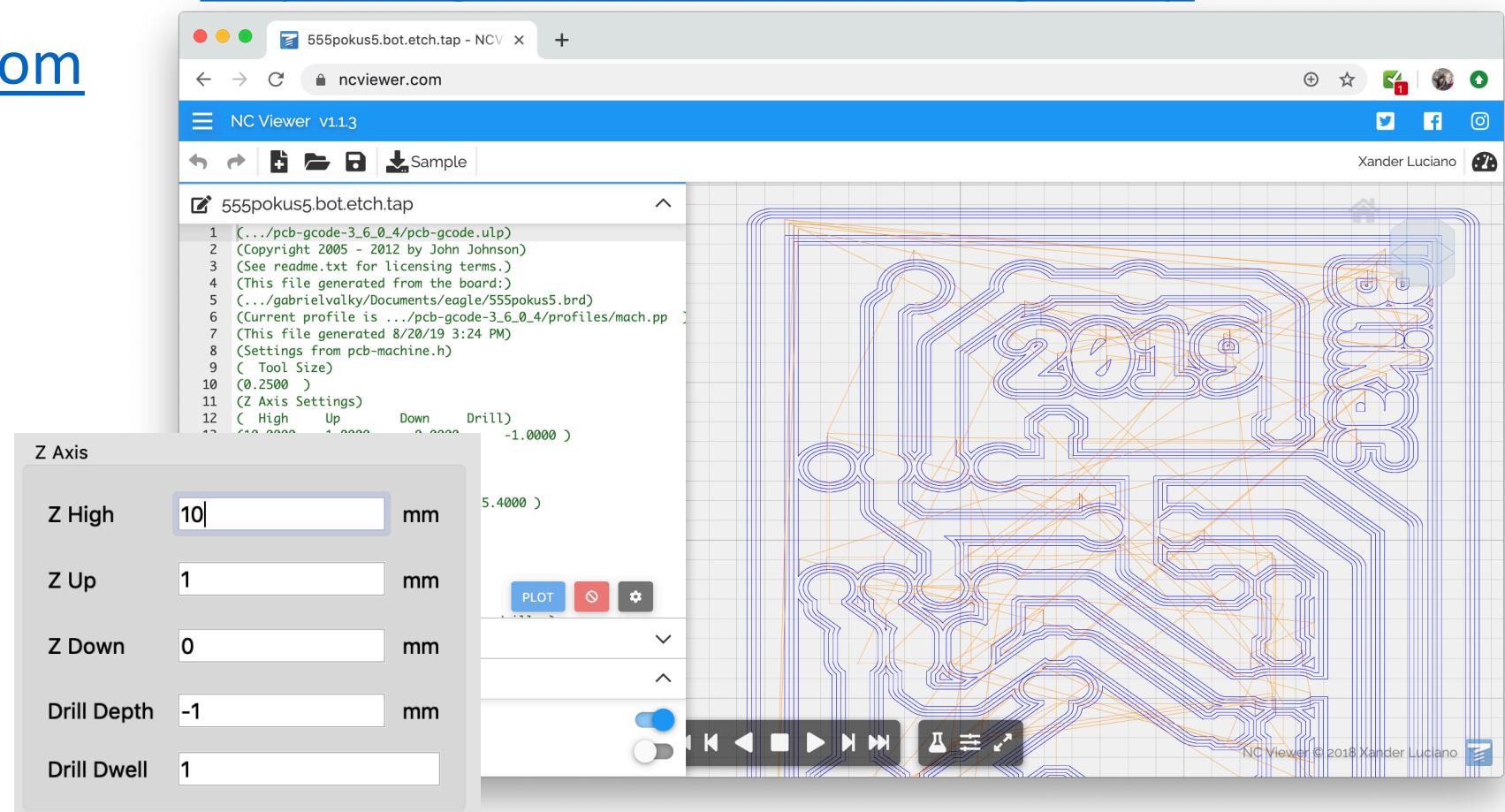
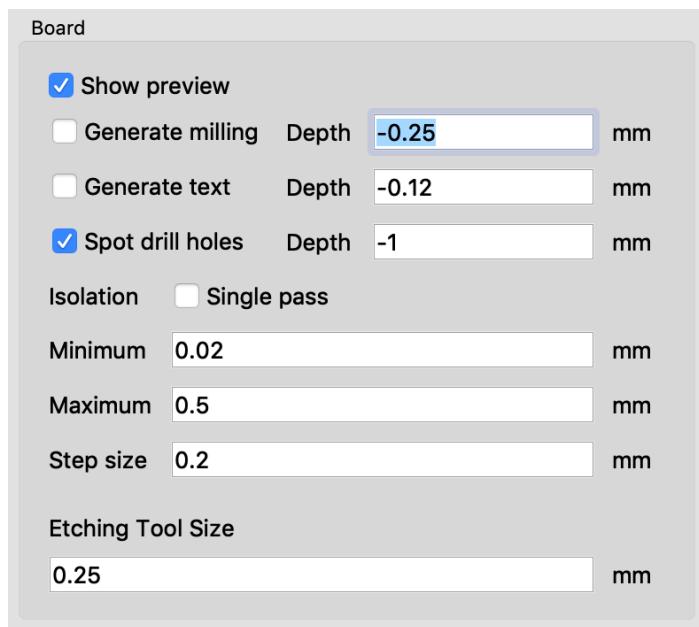
Modelujeme

- Prázdna Schéma
- U1: Pridanie súčiastok
- U2: Zapojenie schémy
- U3: Návrh dosky
- U4: Optimalizácia
- **U5: Export**

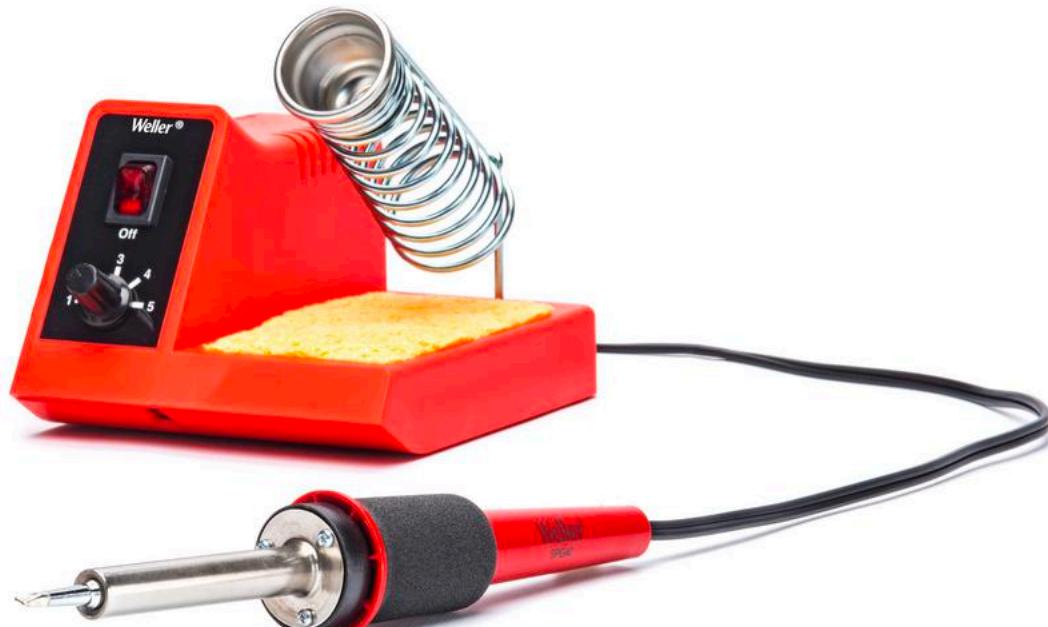


Export do G-Code

- Hlédáme "pcb-gcode" na <http://eagle.autodesk.com/eagle/ulp>
- <https://ncviewer.com>



Osadzujeme

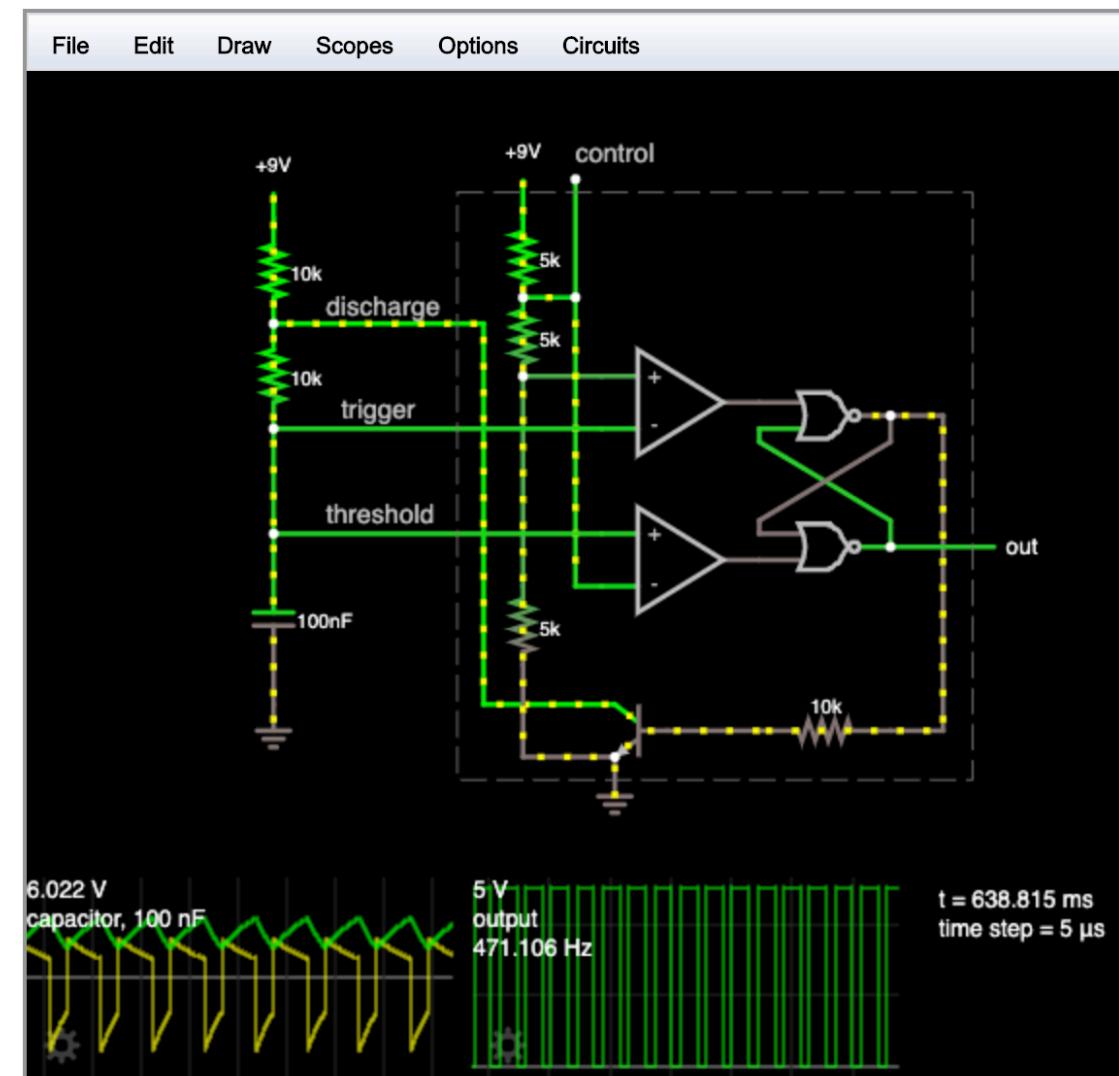


Testujeme

- Vizuálna kontrola
- Osciloskop

Bonus: Simulator elektrických obvodov

- <https://www.falstad.com/circuit/>
- Circuits -> 555 Timer chip -> Internals



Hotovo!

<http://L.valky.eu/dps1>