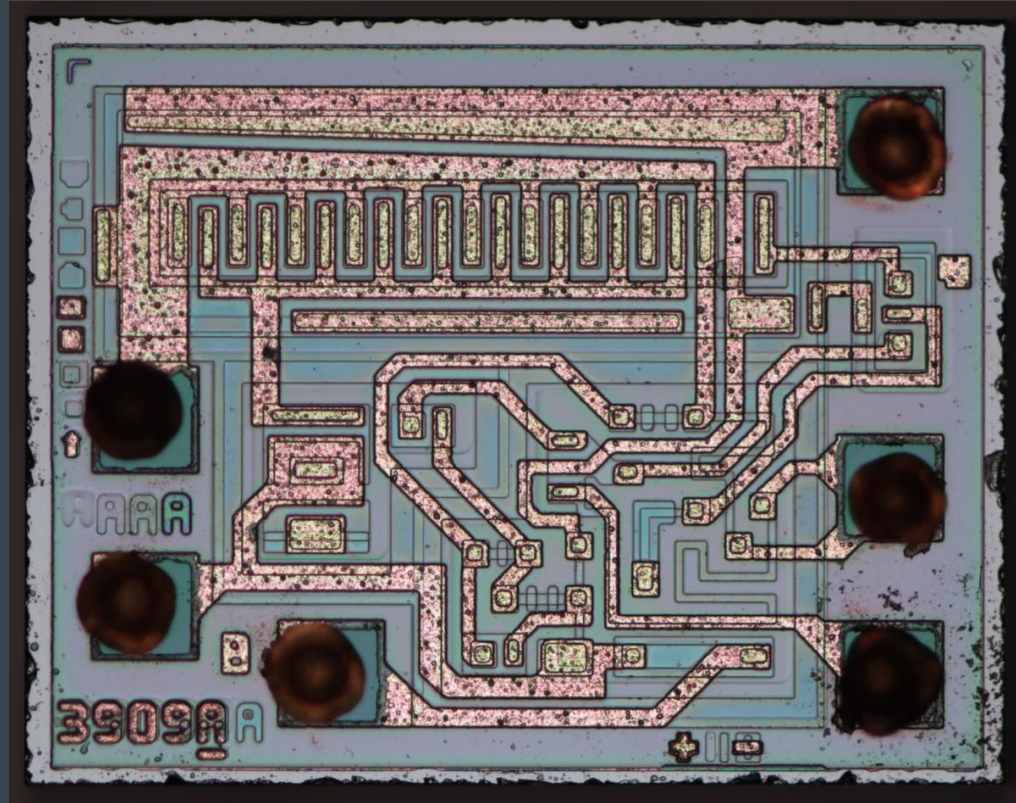


HS badge - nauka lutowania

Założenia

- prosty układ
- niewielka ilość elementów
- relatywnie krótki czas złożenia
- walor użytkowy

LM3909



LM3909

- zaprojektowany w 1975 r
- minimalna ilość elementów zewnętrznych
- umożliwiał sterowanie 2V diody z baterii 1.5V
- <https://www.righto.com/2021/01/reverse-engineering-low-power-led.html>
- <https://softsolder.com/2020/09/03/discrete-transistor-lm3909-led-flasher/>

LM3909



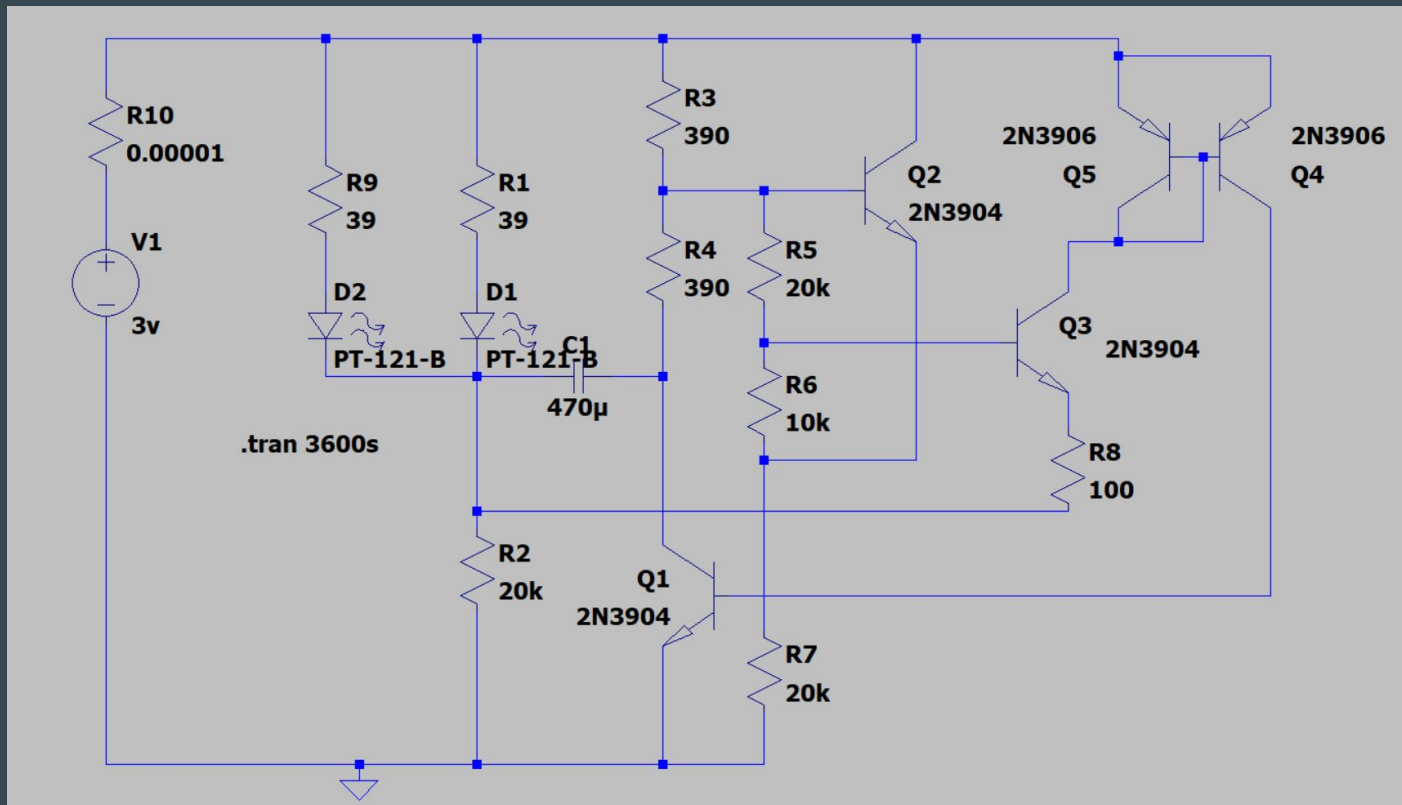
LM3909

Early CD versions came with a flashing red LED on the side of the case. This was designed by the EMI contractor Jon Kempner, who was awarded the platinum disc, using the now discontinued LM3909 LED flasher IC. The circuit was powered by a single AA battery; the battery life was stated to be over six months. Some versions were also made with two AA batteries and later editions of the CD set did not feature the blinking LED.[citation needed]

Essentially, it's a device which we thought was entertaining. It's an idea of Storm Thorgerson's which related to Dark Side and the pulse, and it's a live album so the box is "alive". After that, in terms of seriously deep meanings, one might be struggling a bit.

—Nick Mason[4]

Jak to działa



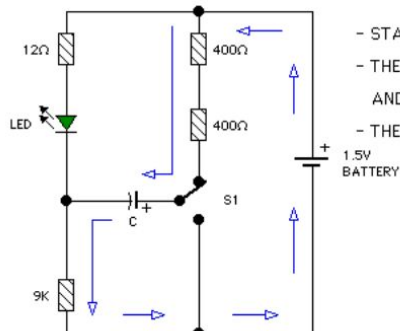
Jak to działa

BASIC WORKING PRINCIPLE OF THE LM3909 LED FLASHER / OSCILLATOR

©ROB PAISLEY 2008

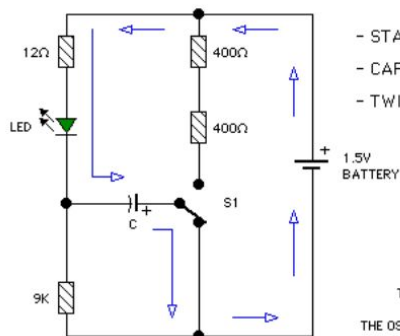
3909 DIY 08 SCH Working

08 March, 2008



- STATE "A" - S1 IN THE UP POSITION - CHARGING.
- THE CAPACITOR CHARGES IN SERIES WITH THE BATTERY AND PARALLEL WITH THE LED.
- THE CAPACITOR CHARGES TO THE SUPPLY VOLTAGE.

<http://home.cogeco.ca/~rpaisley4/CircuitIndex.html>



- STATE "B" - S1 IN THE DOWN POSITION - FLASHING.
- CAPACITOR C DISCHARGES IN SERIES WITH THE BATTERY AND LED.
- TWICE THE SUPPLY VOLTAGE IS AVAILABLE TO DRIVE THE LED.

- IN THE LM3909 CIRCUIT -

THE CAPACITOR DOES NOT CHARGE TO THE FULL SUPPLY VOLTAGE
THE OSCILLATOR SWITCHES BEFORE THE CAPACITOR CAN BE REVERSE BIASED

Lutujemy !

BEZPIECZEŃSTWO TO PODSTAWA

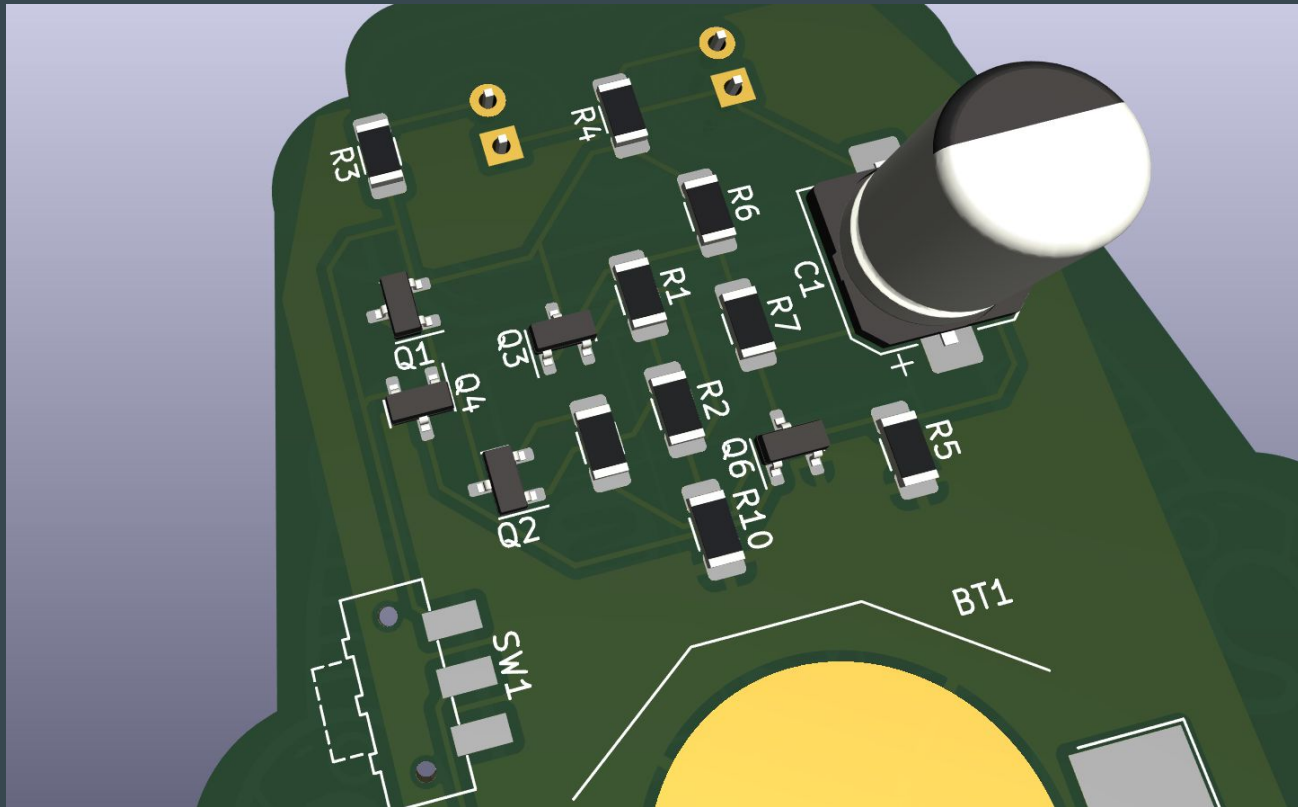
- lutownica jest gorąca !
- nie łapiemy za czynny element lutownicy
- kontrolujemy co robimy i swoje otoczenie

Lutujemy !

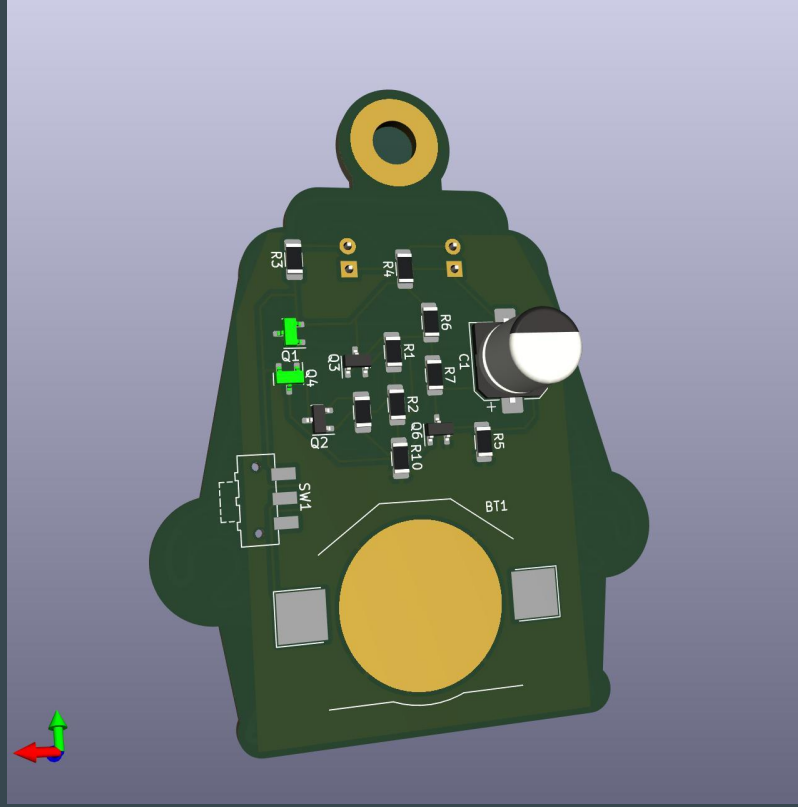
Kolejność montażu

- od najmniejszych do największych elementów
- Tranzystory Q
- Rezystory R
- Wyłącznik
- Kondensator
- Koszyczek na baterię
- Diody

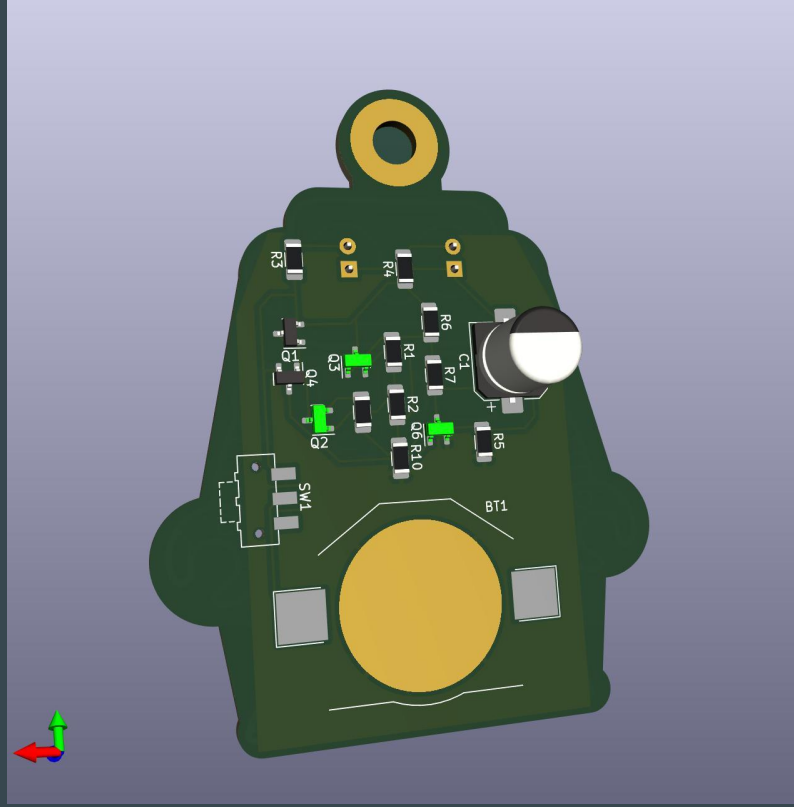
Lutujemy !



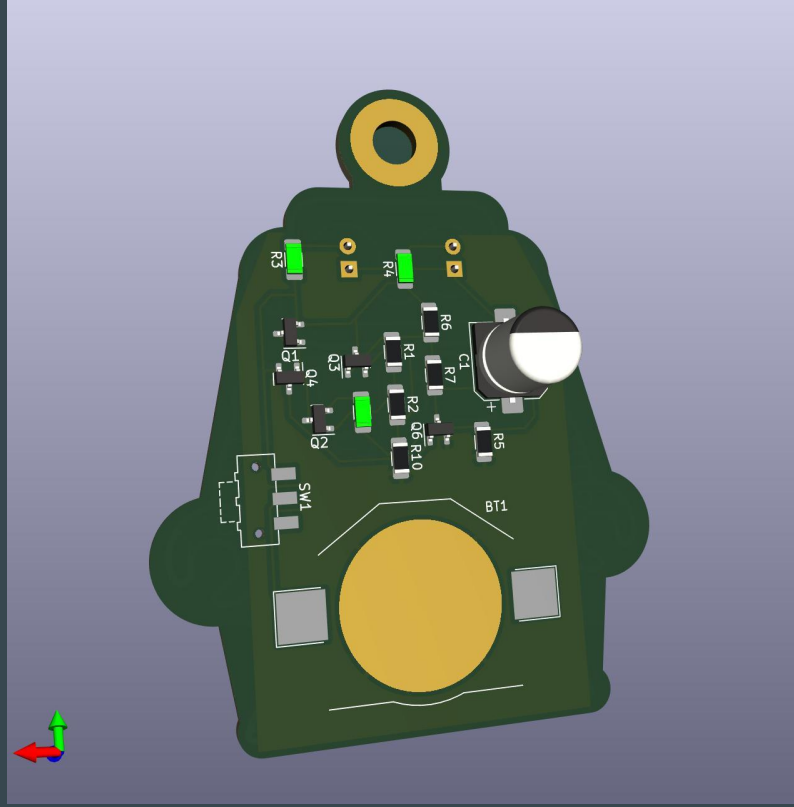
3906



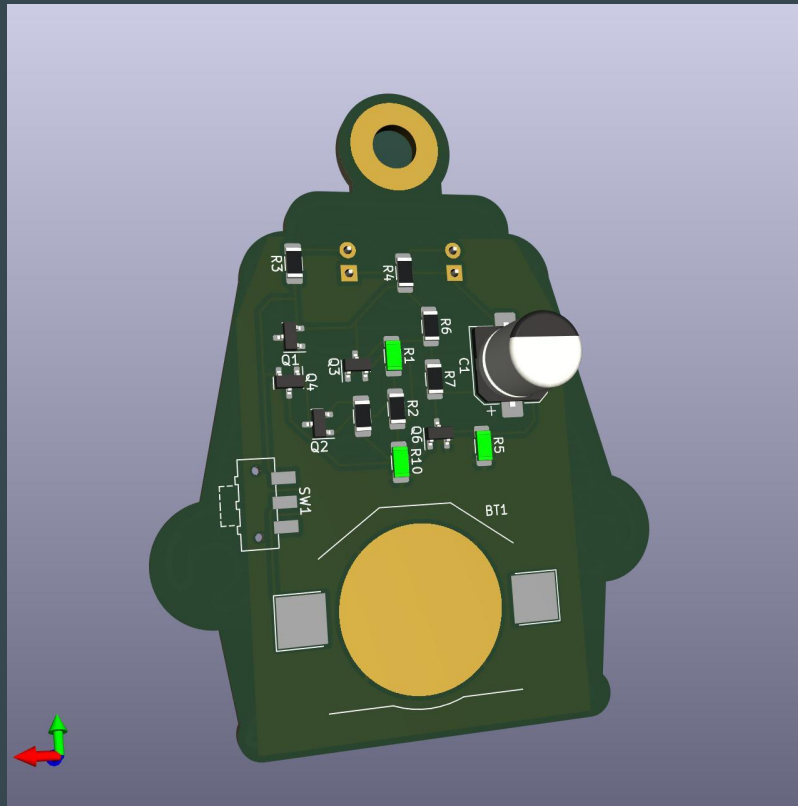
3904



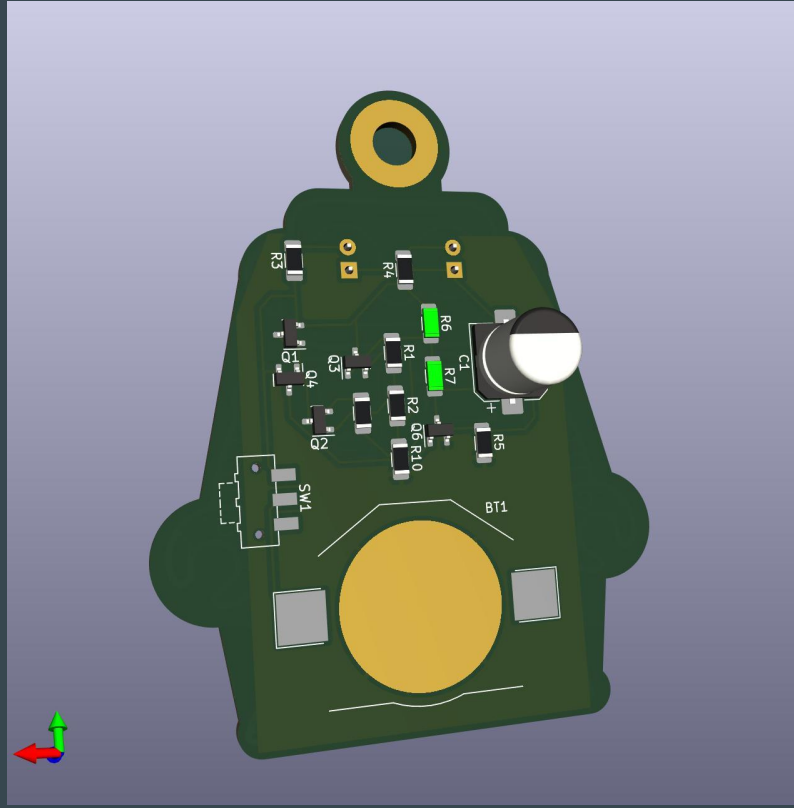
100ohm



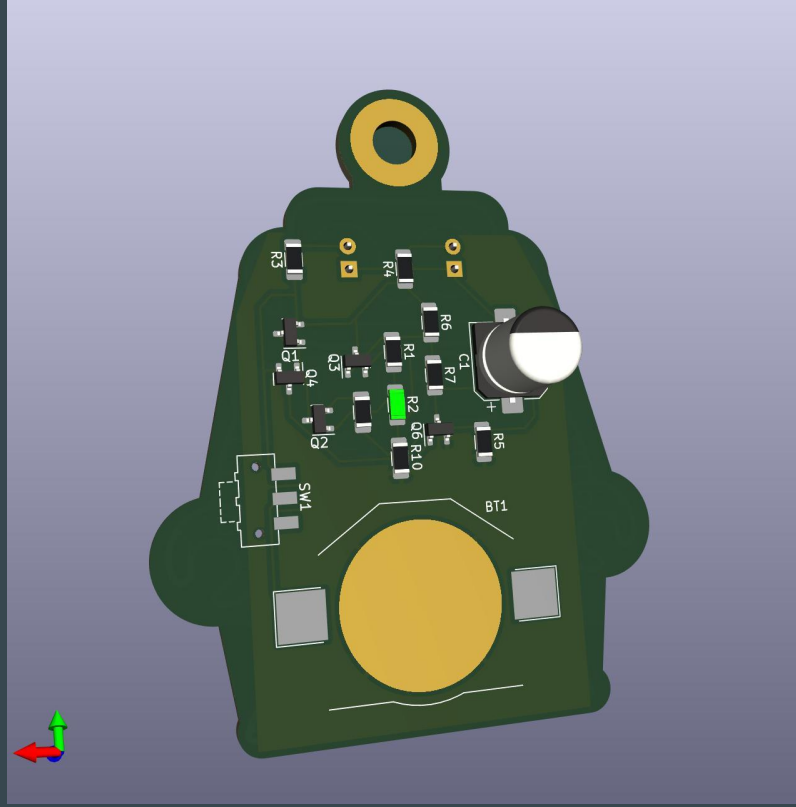
20k



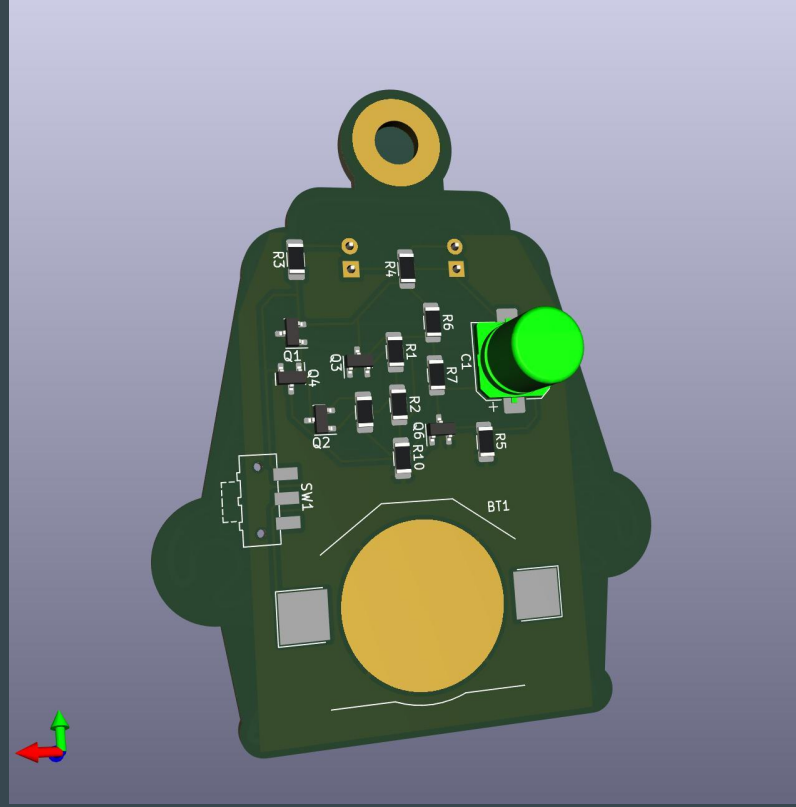
390ohm



10k



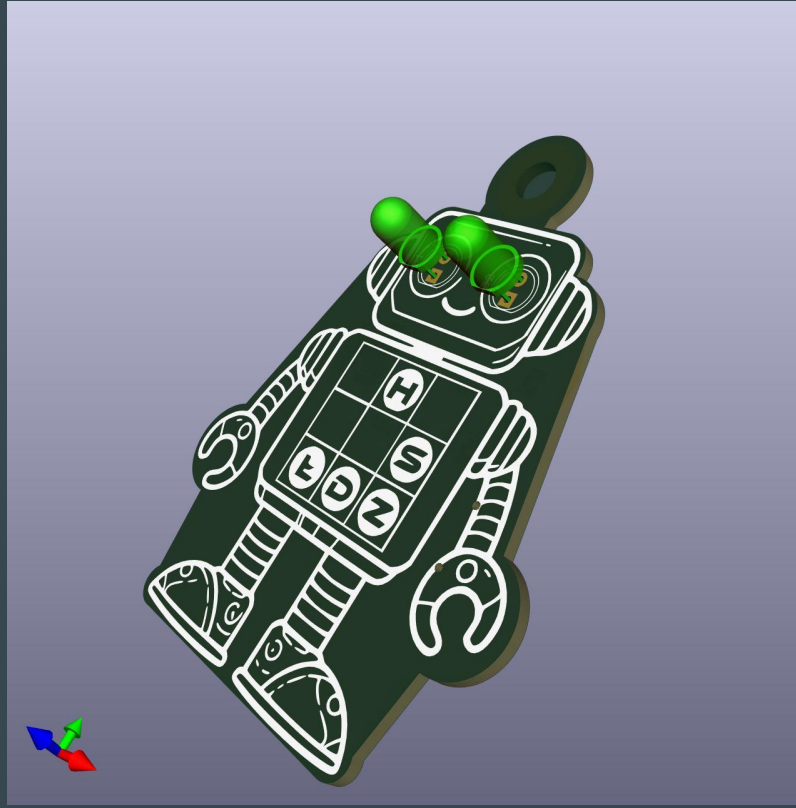
Kondnsator



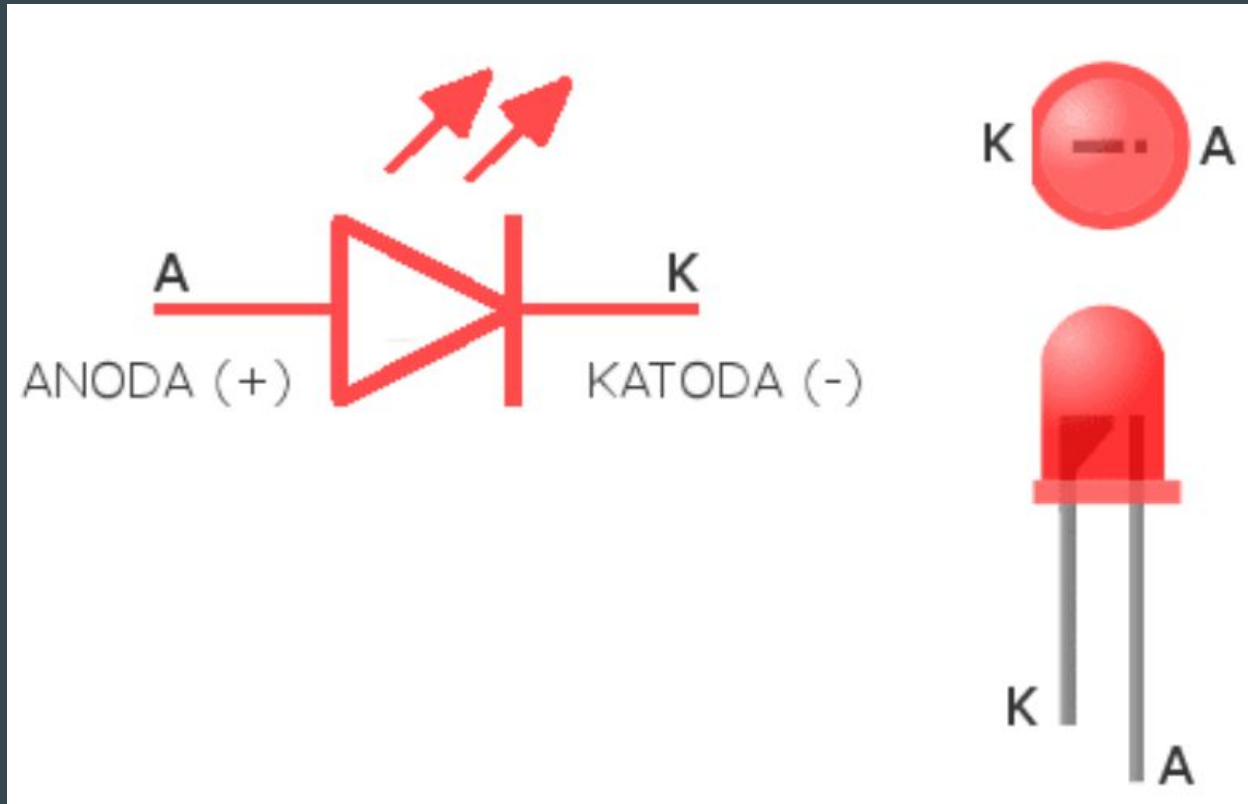
Włącznik + koszyk na baterię



LED



LED



Uruchamiamy !!