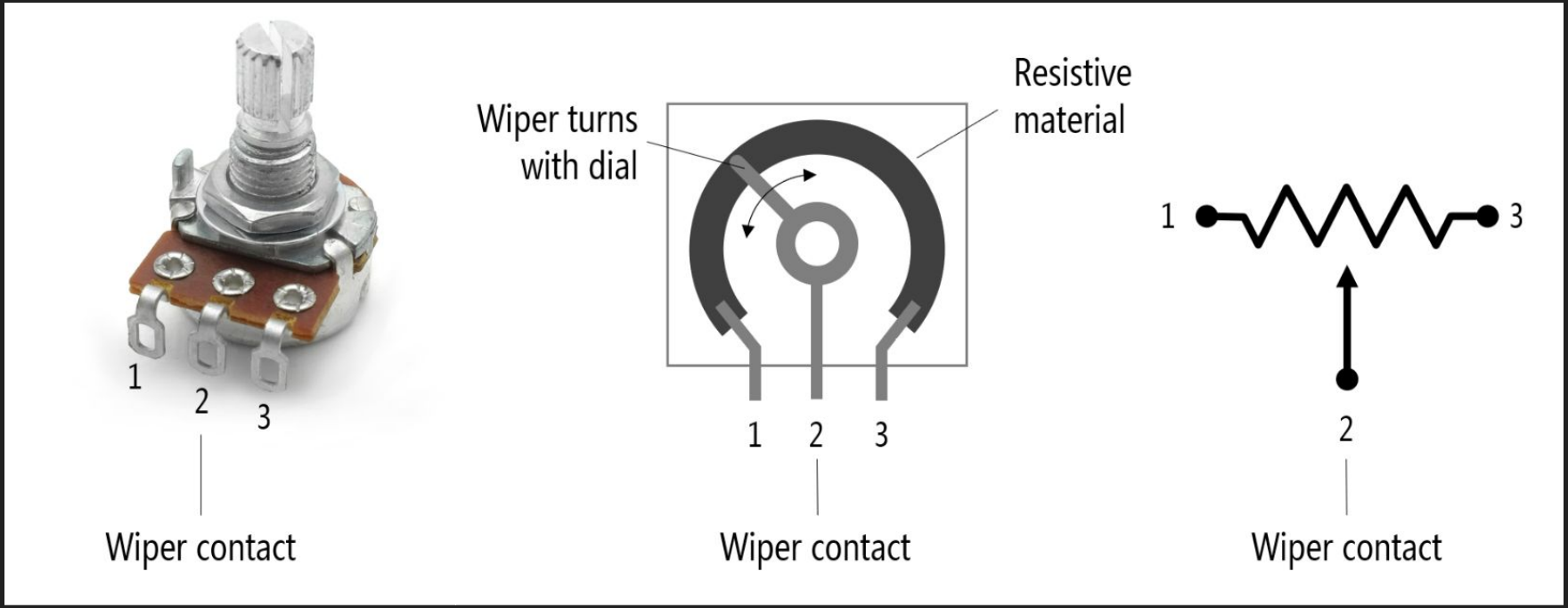
Teensy

Potentiometer


CUTOFF IN
2kHz
20Hz
CUTOFF
20kHz

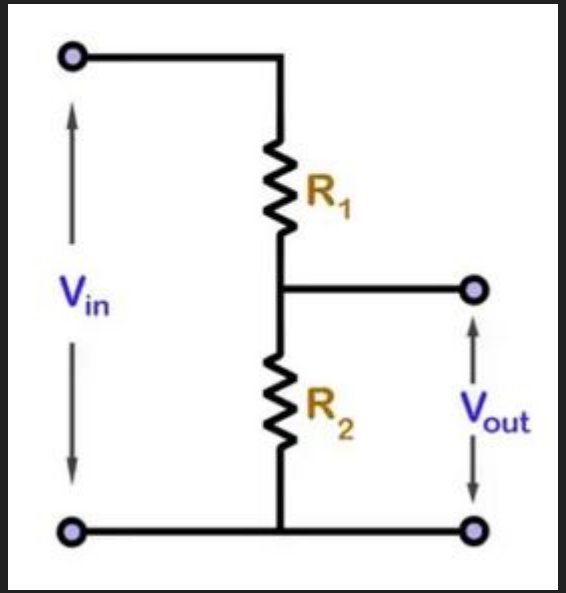
Werking potmeter



Voltage divider

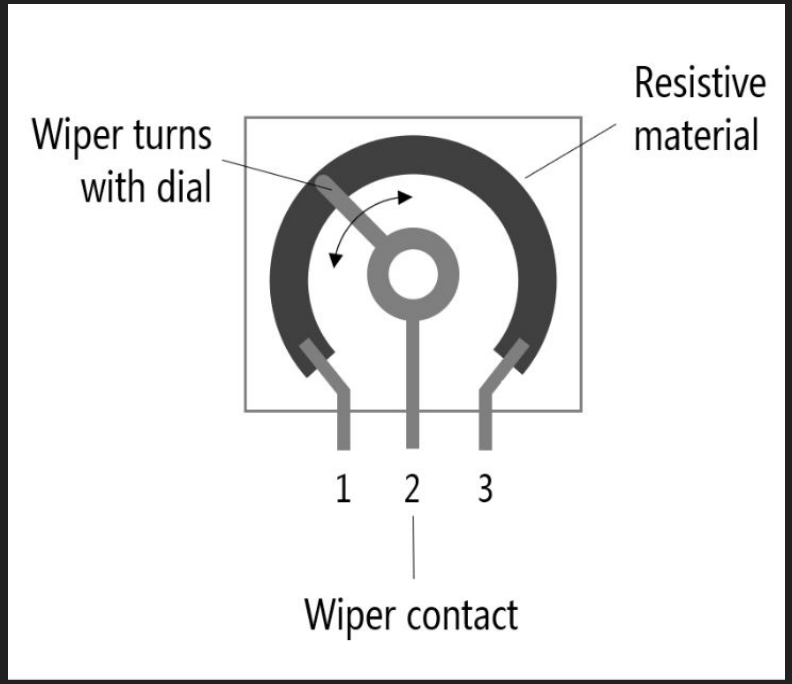
verzwakt voltage door verhouding tussen twee weerstanden

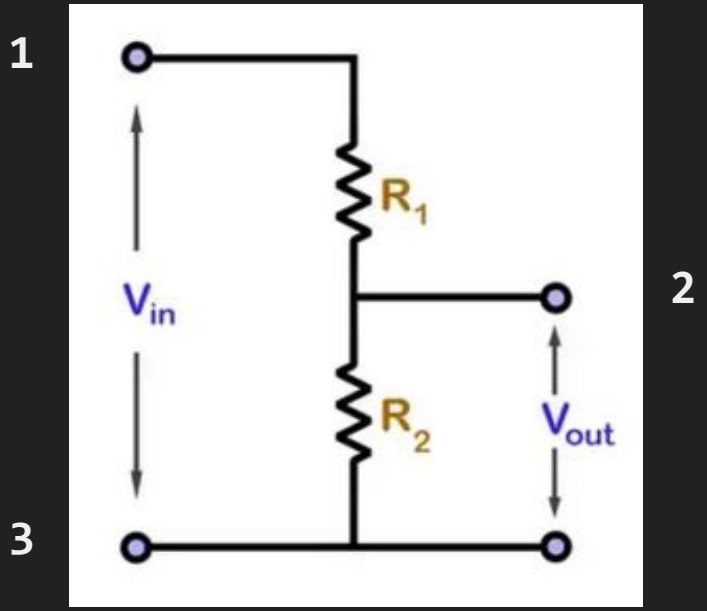
$$V_{\text{out}} = \frac{Z_2}{Z_1 + Z_2} \cdot V_{\text{in}}$$



[interactief voorbeeld]

Potmeter als voltage divider

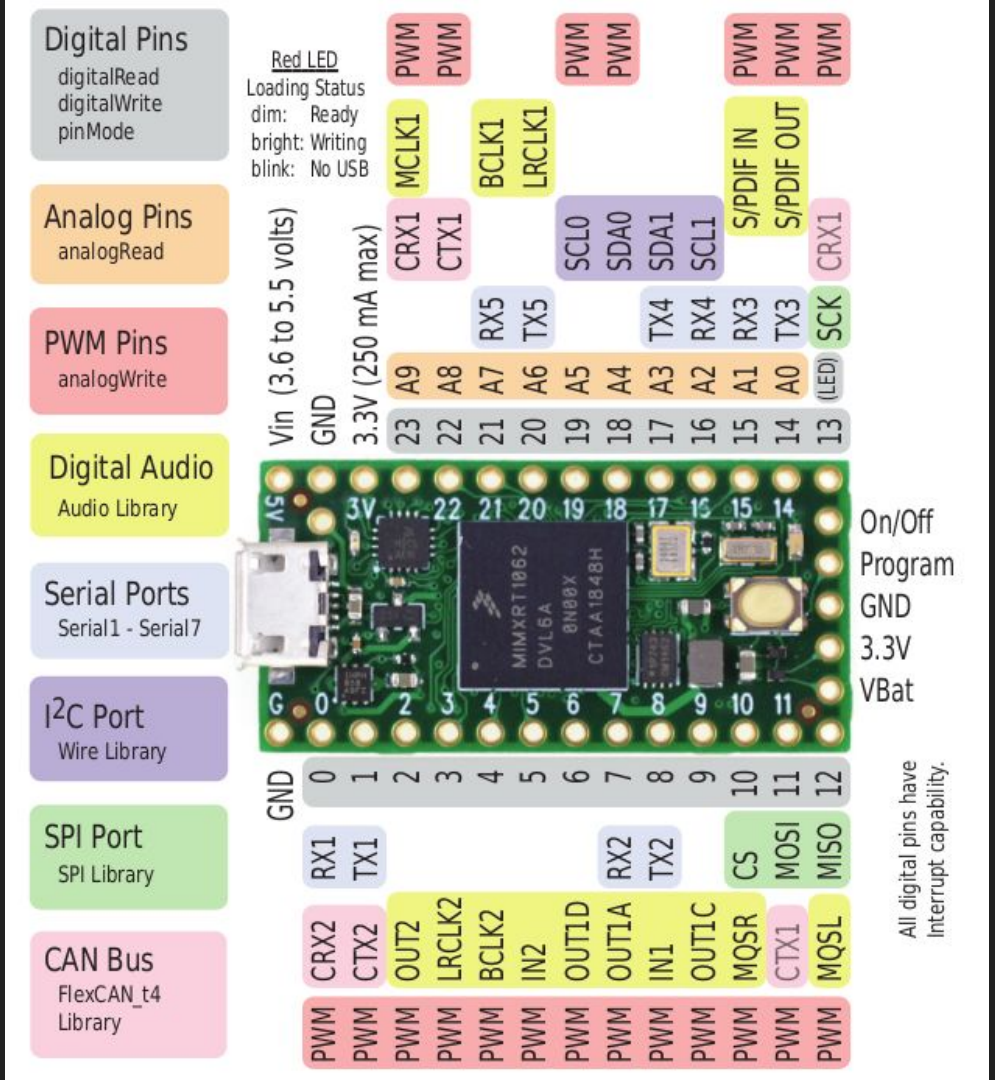




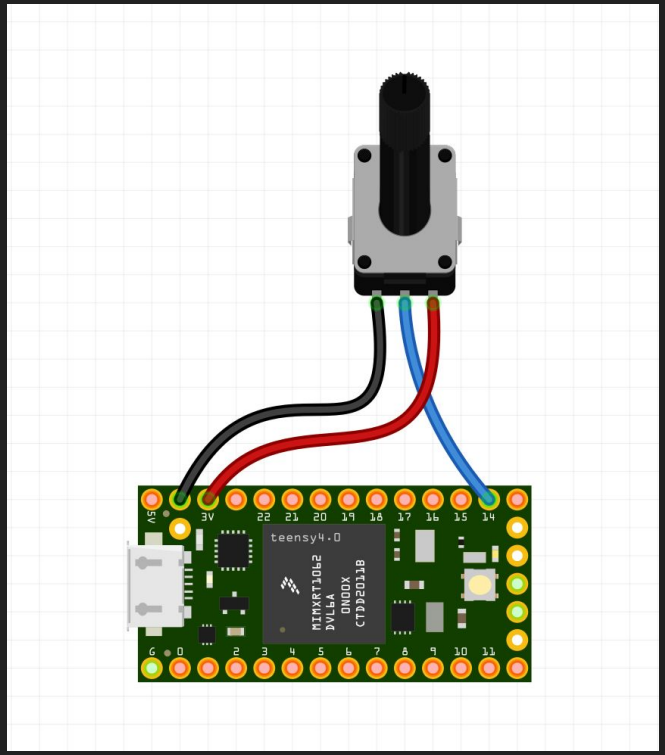
Potmeter aan de Teensy

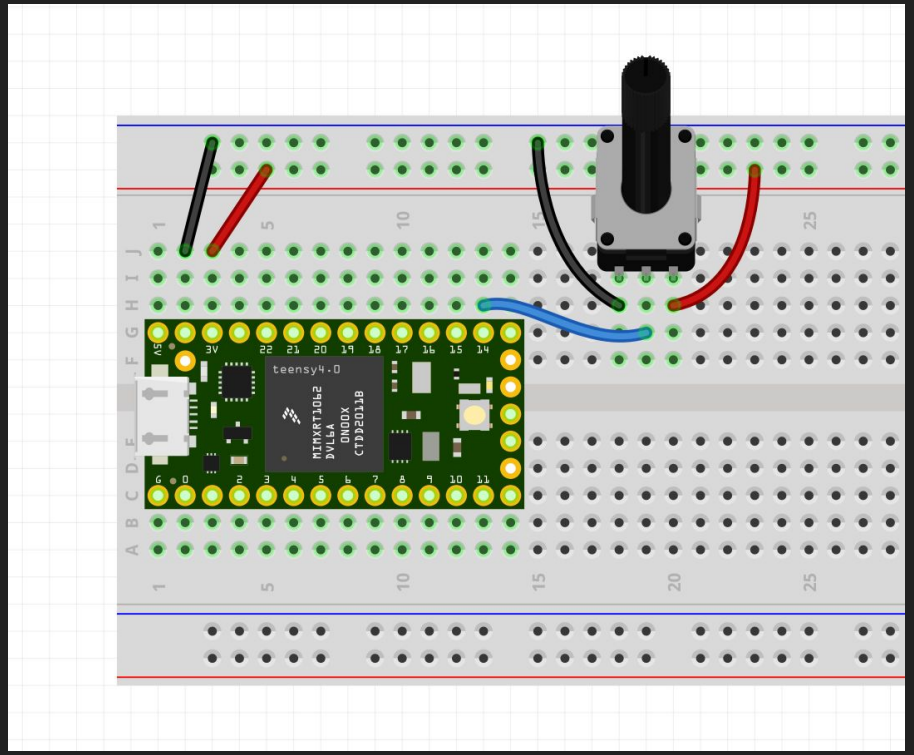
Kies een analoge pin uit

Bijvoorbeeld A0 / 14



Potmeter aan de Teensy

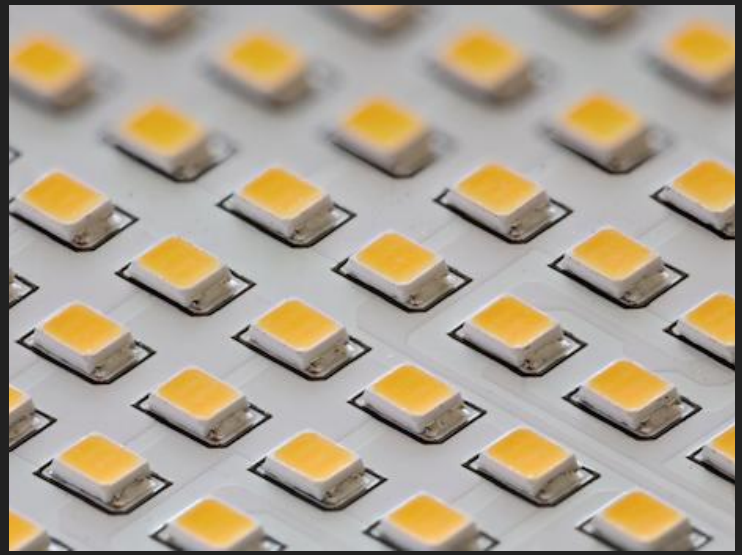


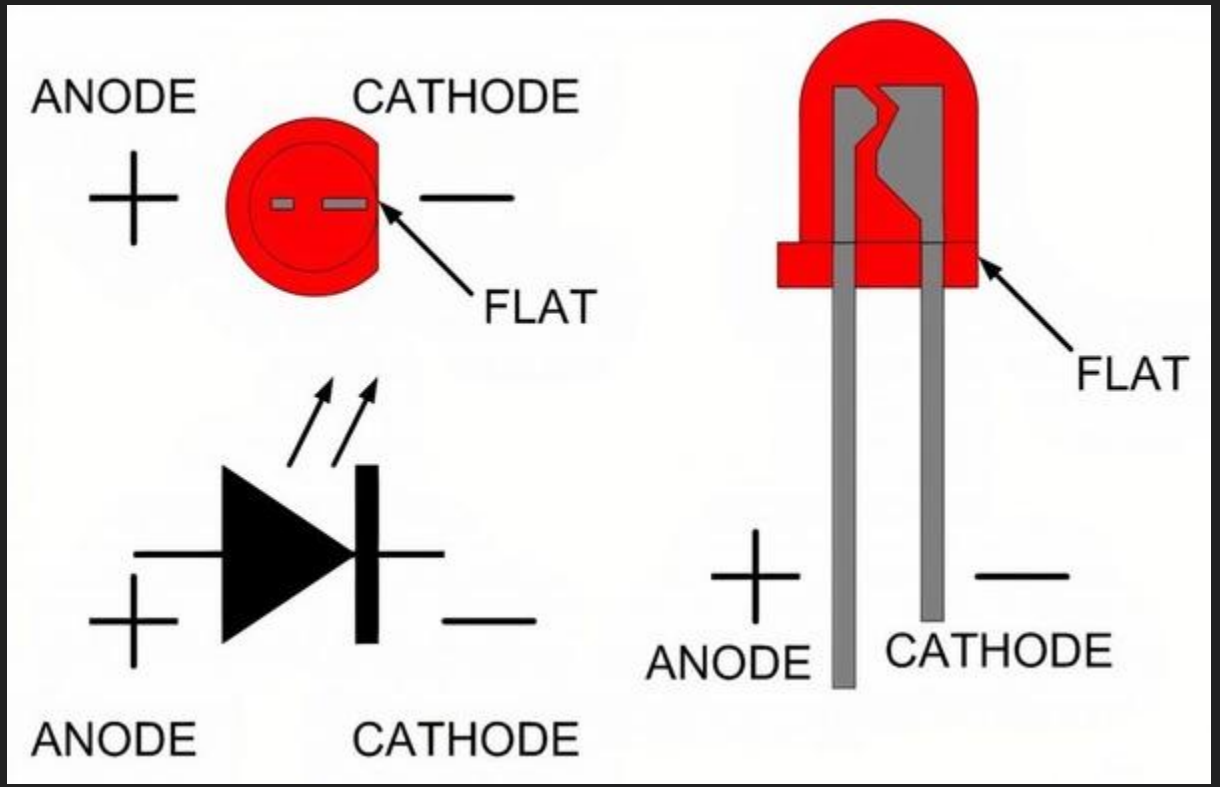


Code

Teensy

LEDs



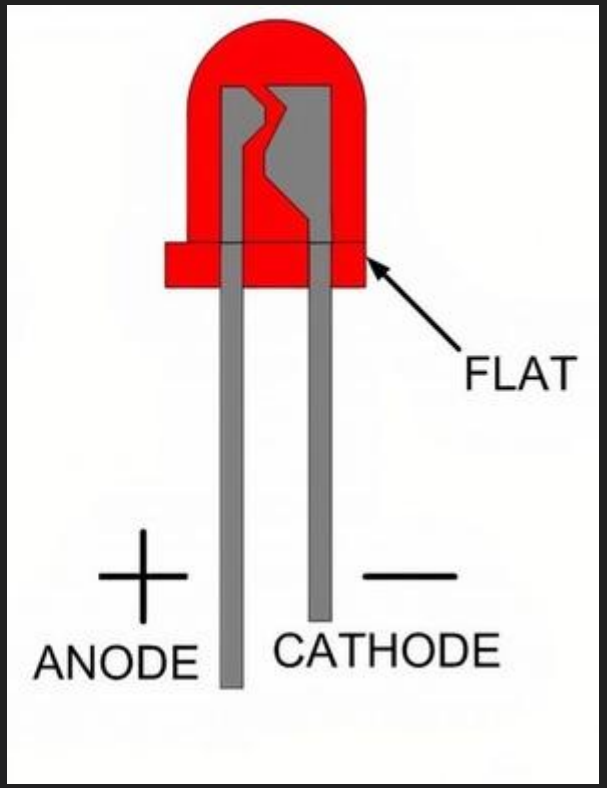

ANODE
CATHODE
FLAT
ANODE
CATHODE
FLAT
ANODE
CATHODE

Ezelsbruggetje!

aaaaa-node

anode (+) heeft een lang pootje

de nood is hoog (in voltage)



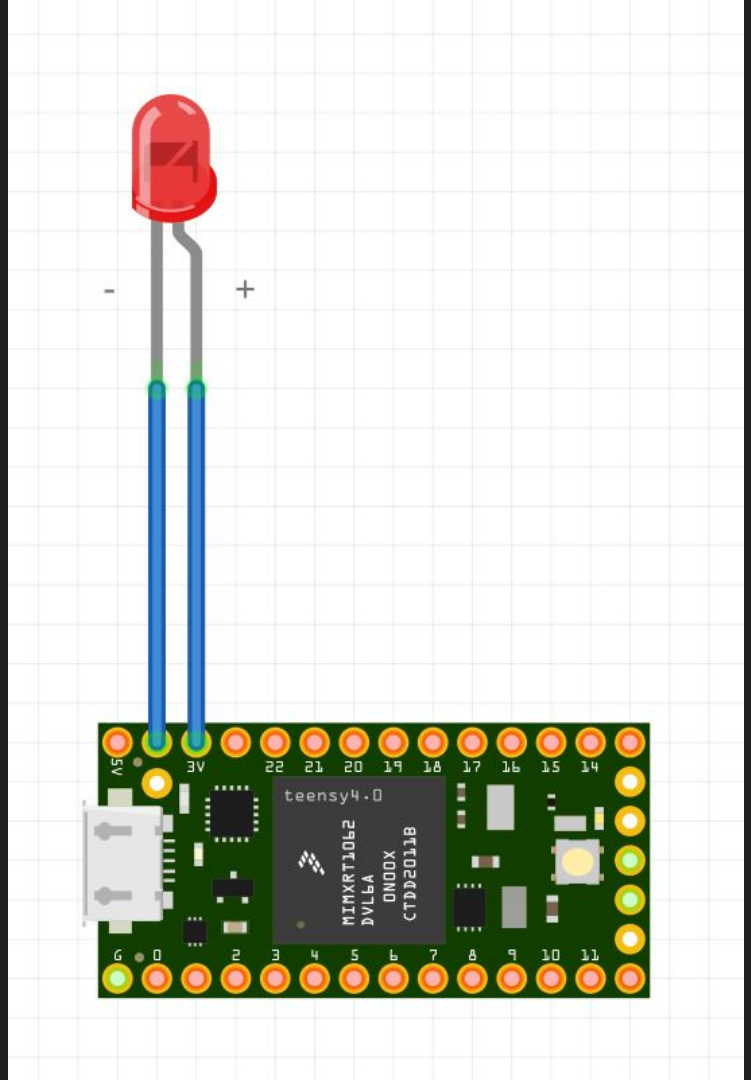
cat-flat

cathode (-) heeft een vlakke zijde

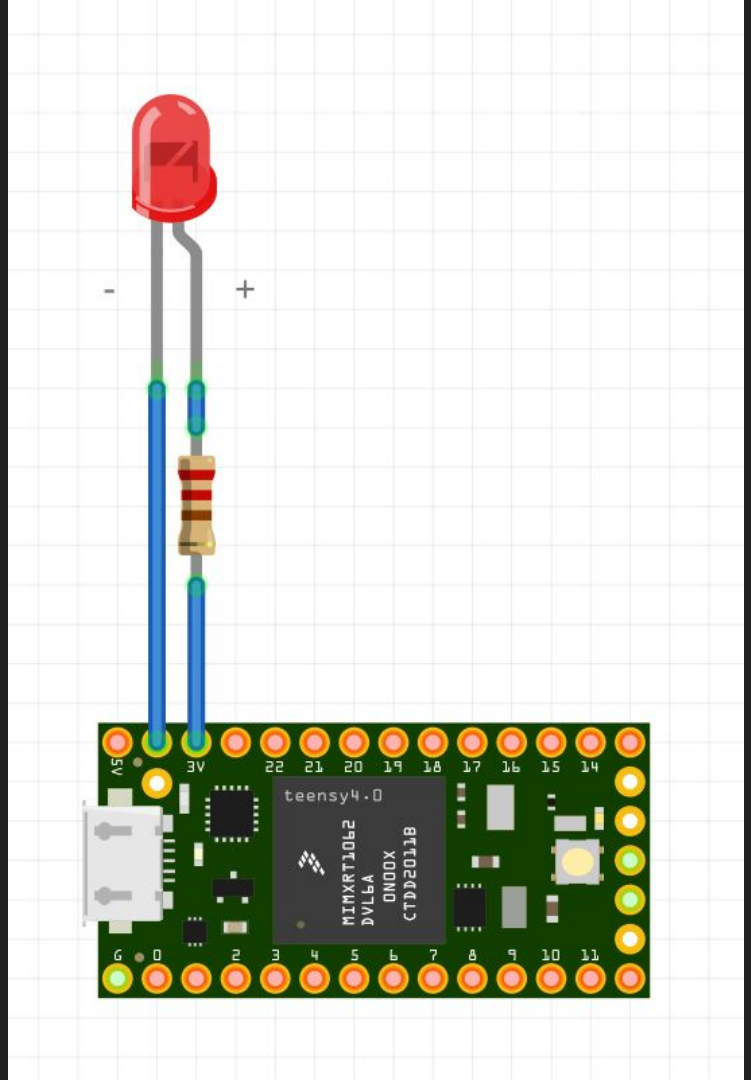
Anode (+) naar 3.3V

Cathode (-) naar GND

LED gaat aan...

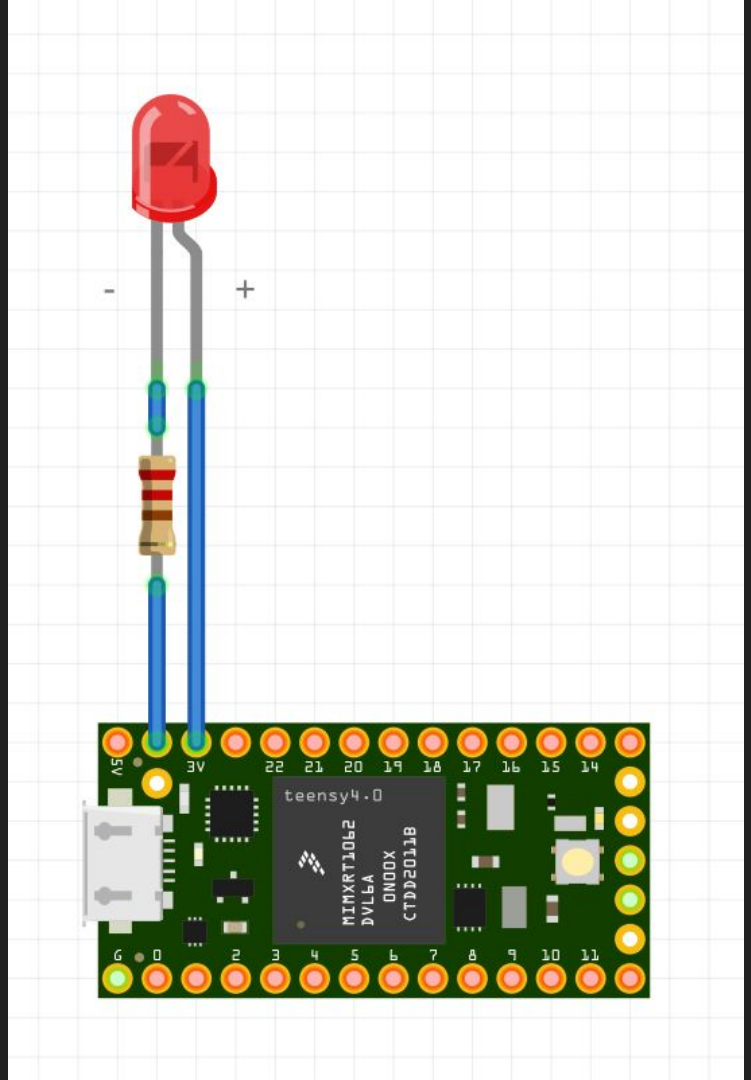


Stroom beperken: weerstand van 220Ω ertussen

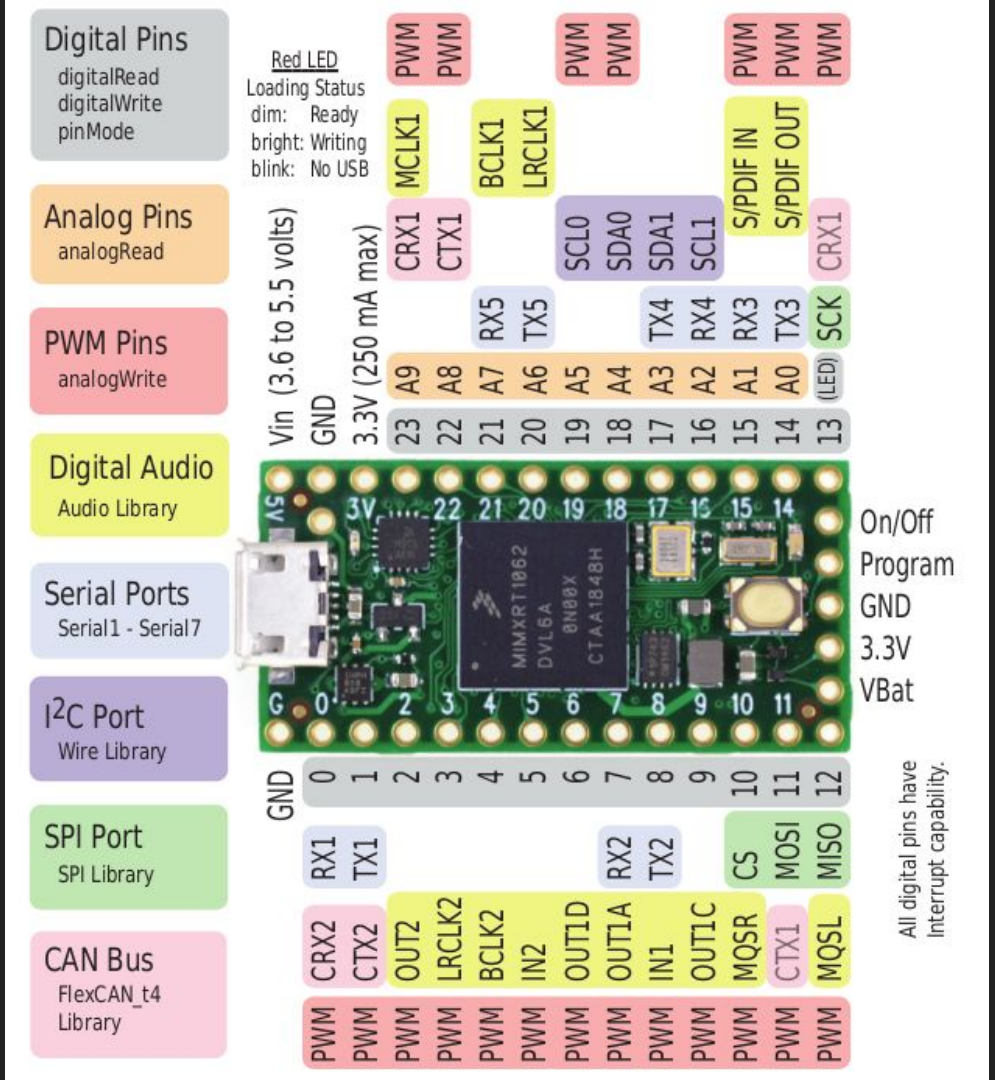


Kan ook tussen cathode (-) en GND

Weerstand vaak tussen 100Ω - 400Ω



LED zit direct aan 3.3V,
dus is niet aanstuurbaar

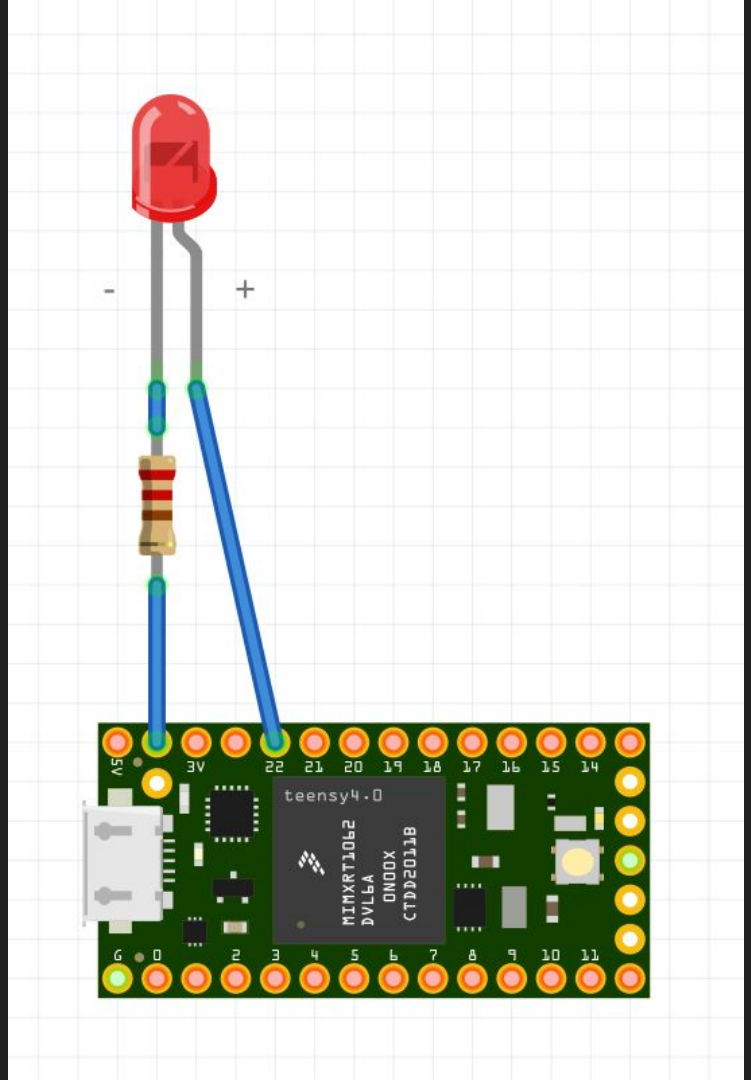


Pin 22 kan gebruikt worden als digitale pin

pin 22 --> anode (+)

cathode --> 220Ω

220Ω --> GND

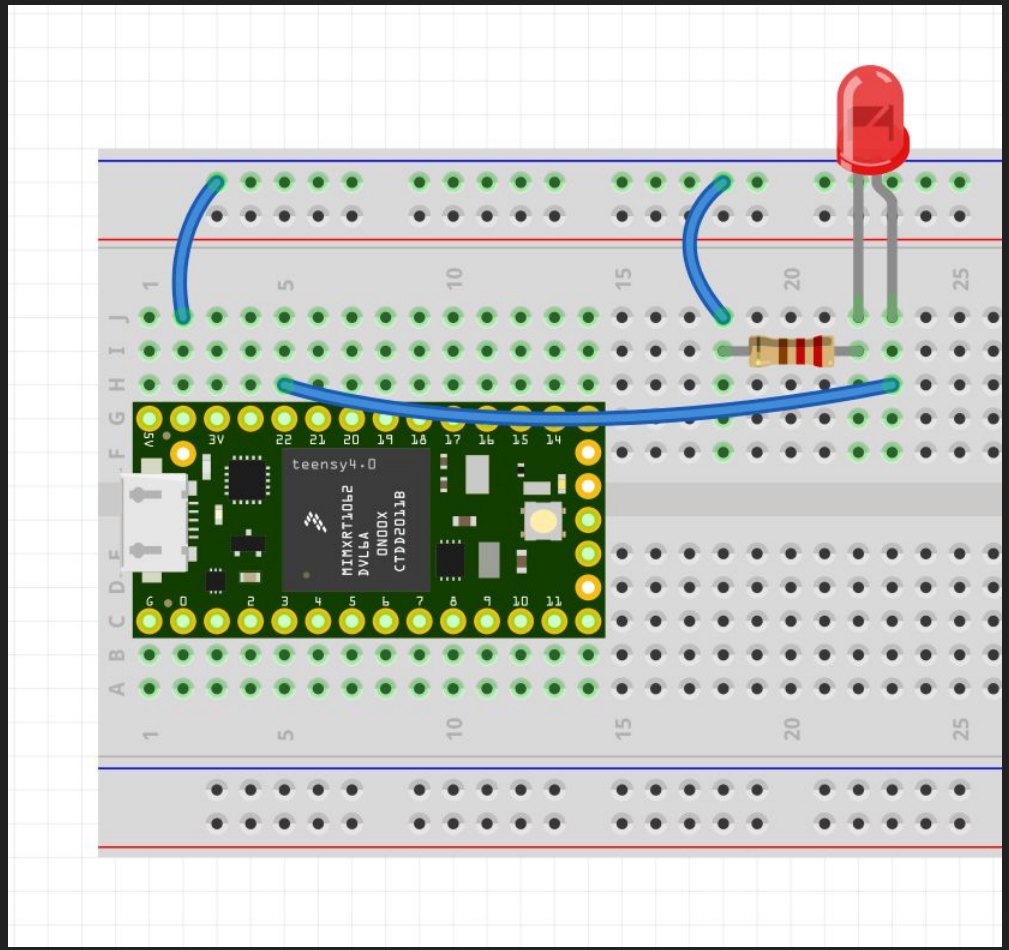


Op een breadboard is wat handiger

pin 22 --> anode (+)

cathode --> 220Ω

220Ω --> GND



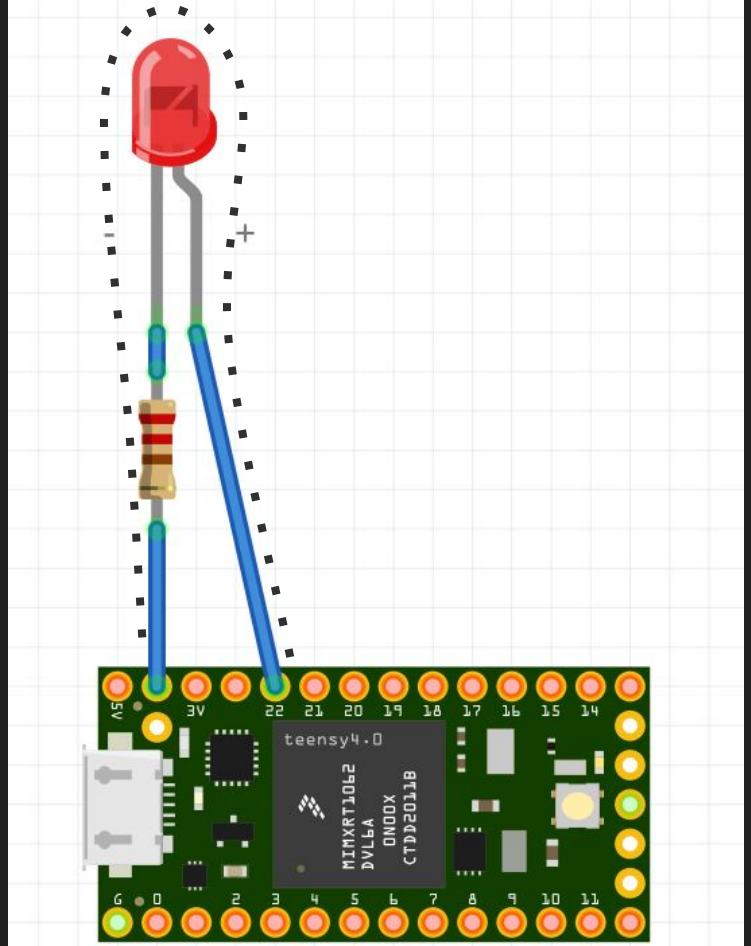
Tijd om te knipperen!

```
digitalWrite(22, LOW);

pin 22 = 0.0V

GND    = 0.0V
```

pin 22 en GND zijn dezelfde voltage: de LED blijft uit

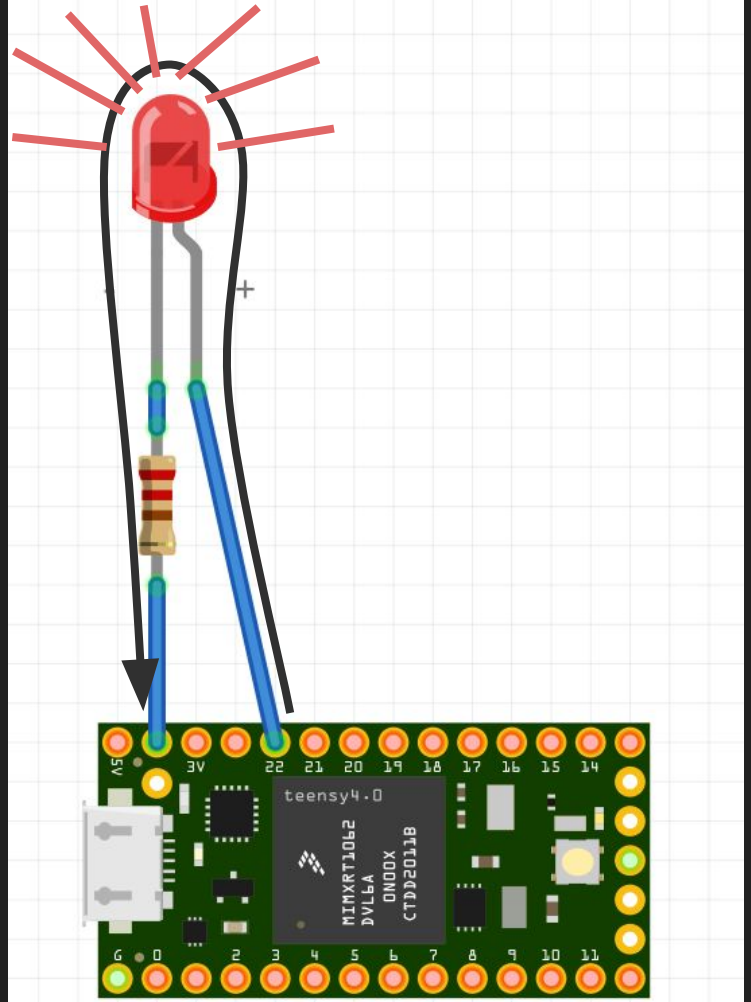


```
digitalWrite(22, HIGH);

pin 22 = 3.3V

GND    = 0.0V
```

er loopt stroom van pin 22 naar GND: de LED gaat aan



Nu zonder delay()