



Calliope  
Jørn Alraun



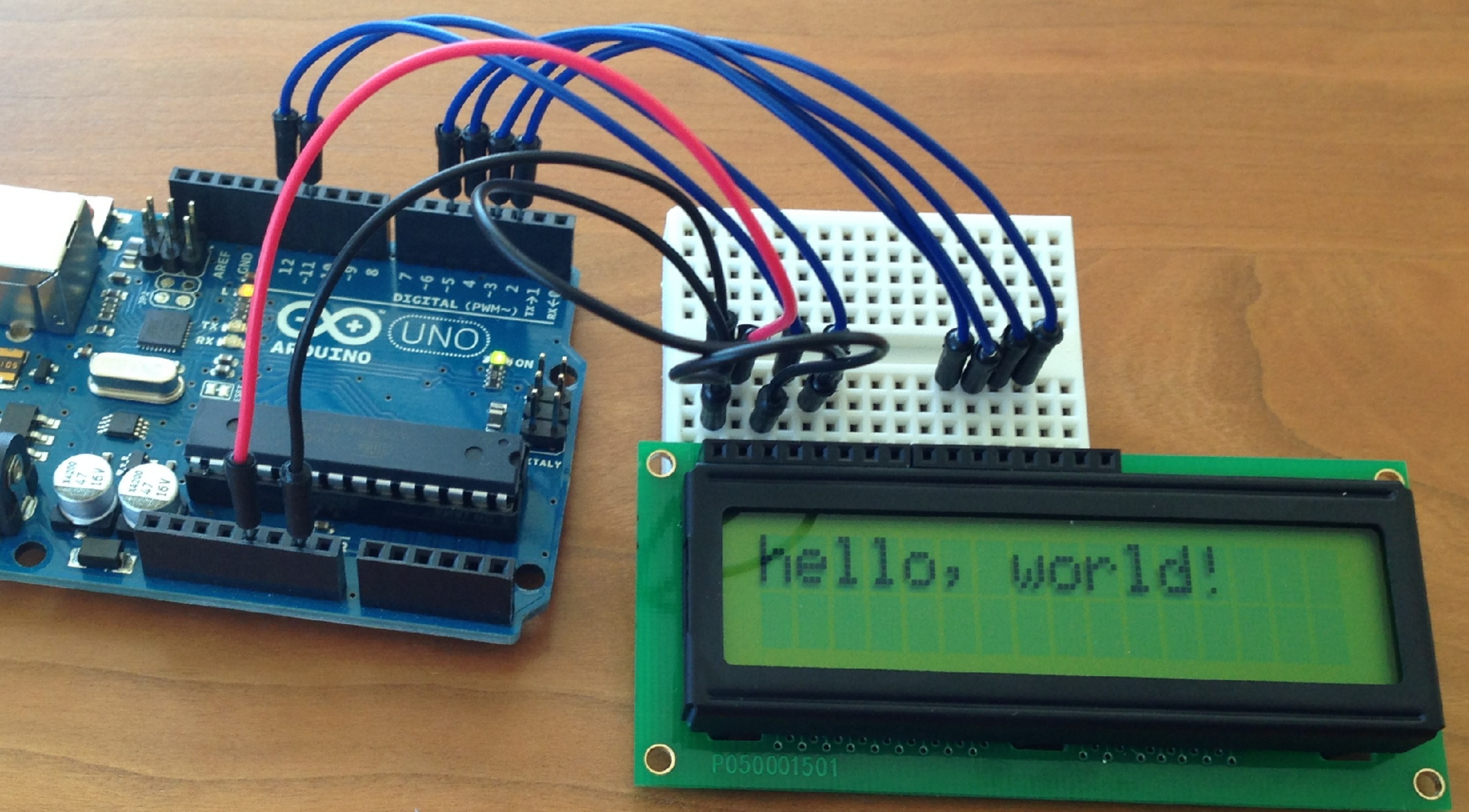






Hernando Barragán





ARDUINO UNO

DIGITAL (PWM ~)

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AREF

GND

TX

RX

ON

ITALY

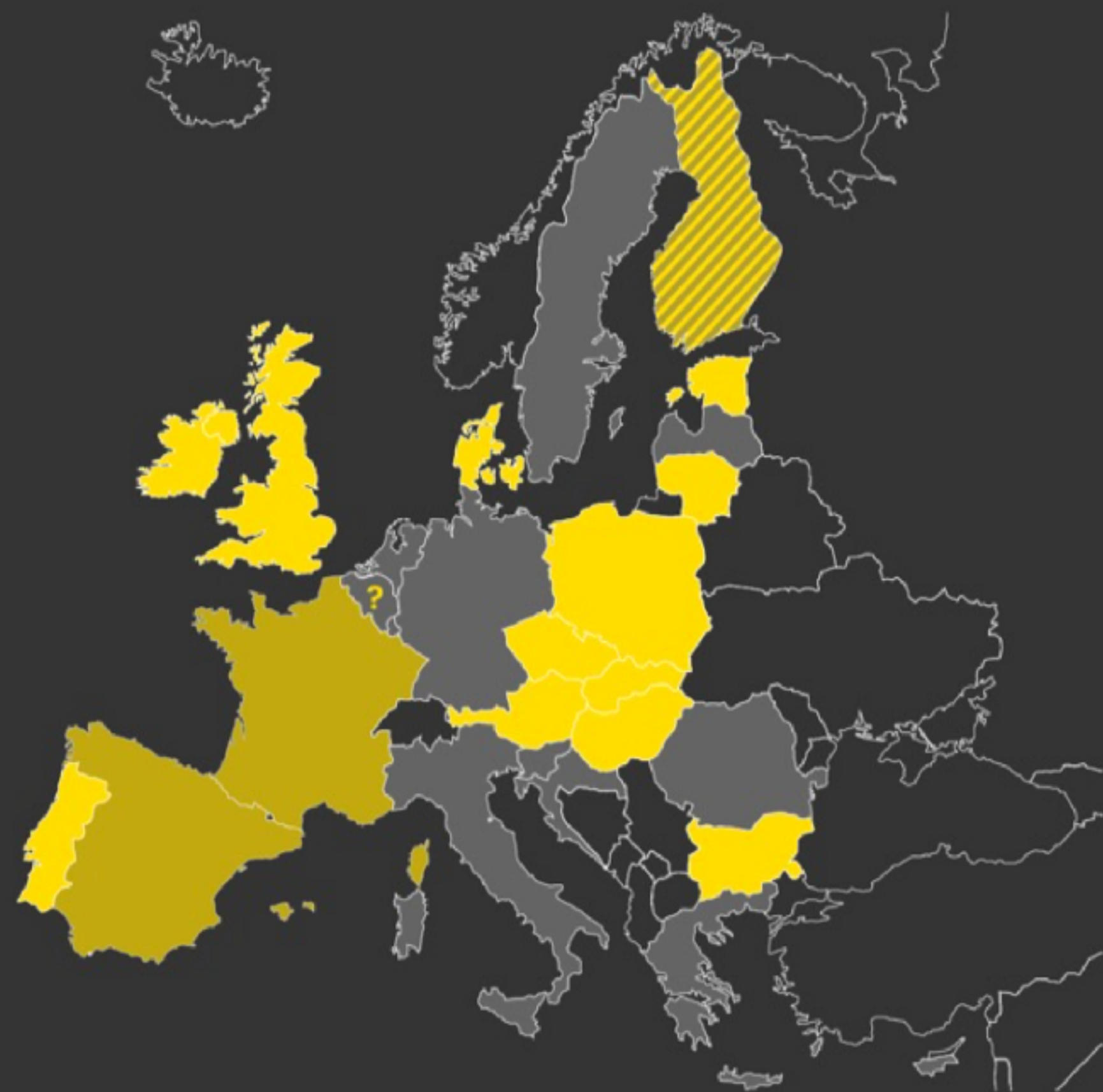
P050001501

hello, world!



## CODING AT SCHOOL

A recent survey has shown that **15 EU countries** have already integrated coding in their school curriculum.



**Already integrated:** Austria, Bulgaria, the Czech Republic, Denmark, Estonia, Hungary, Ireland, Lithuania, Malta, Poland, Portugal, Slovakia and the UK (England).

**Recently integrated:** France, Spain, have recently integrated coding in the curriculum recently (2014-2015).

**Finland** (will integrate coding in 2016)

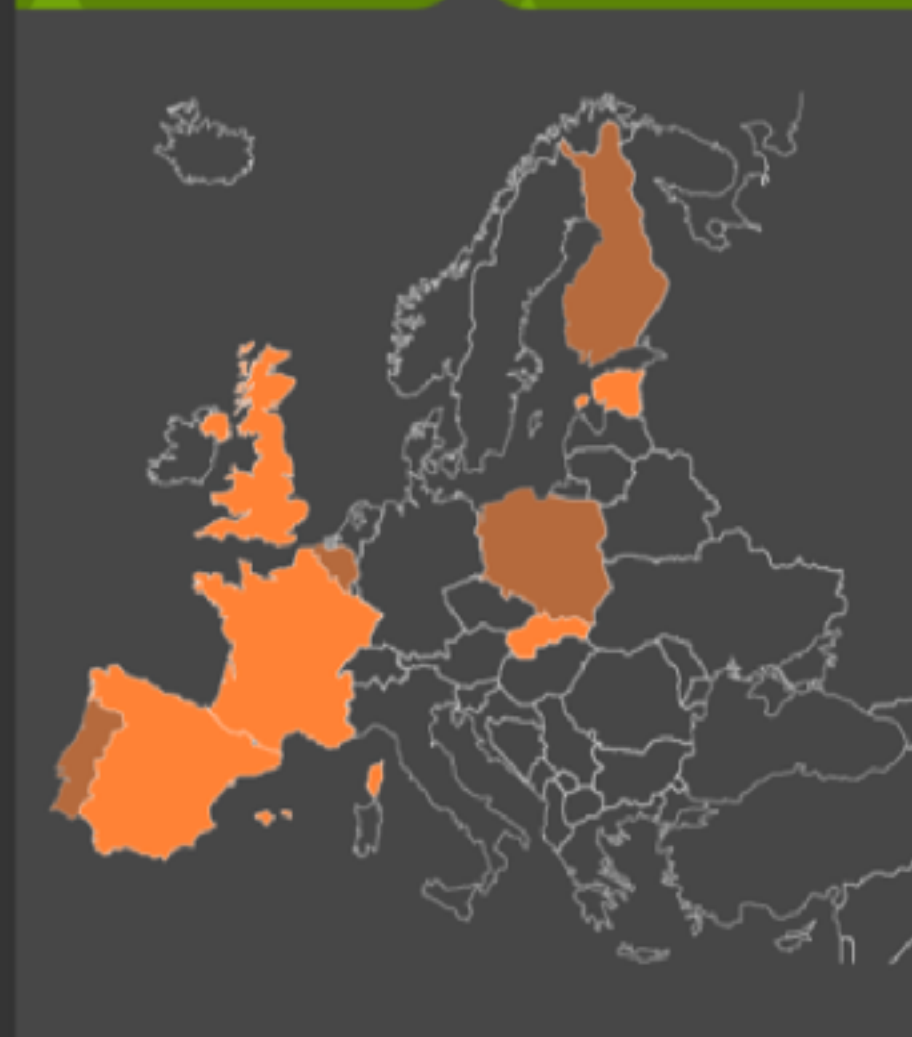
**Belgium (Flanders)** is currently debating whether to integrate coding at school

## AT WHICH LEVELS?

**9 EU countries** already integrate or will integrate coding at **primary school level soon.**

**12 EU countries** already integrate or will integrate coding at **upper secondary school level in general education.**

### Primary school



**orange** already integrate **brown** will integrate

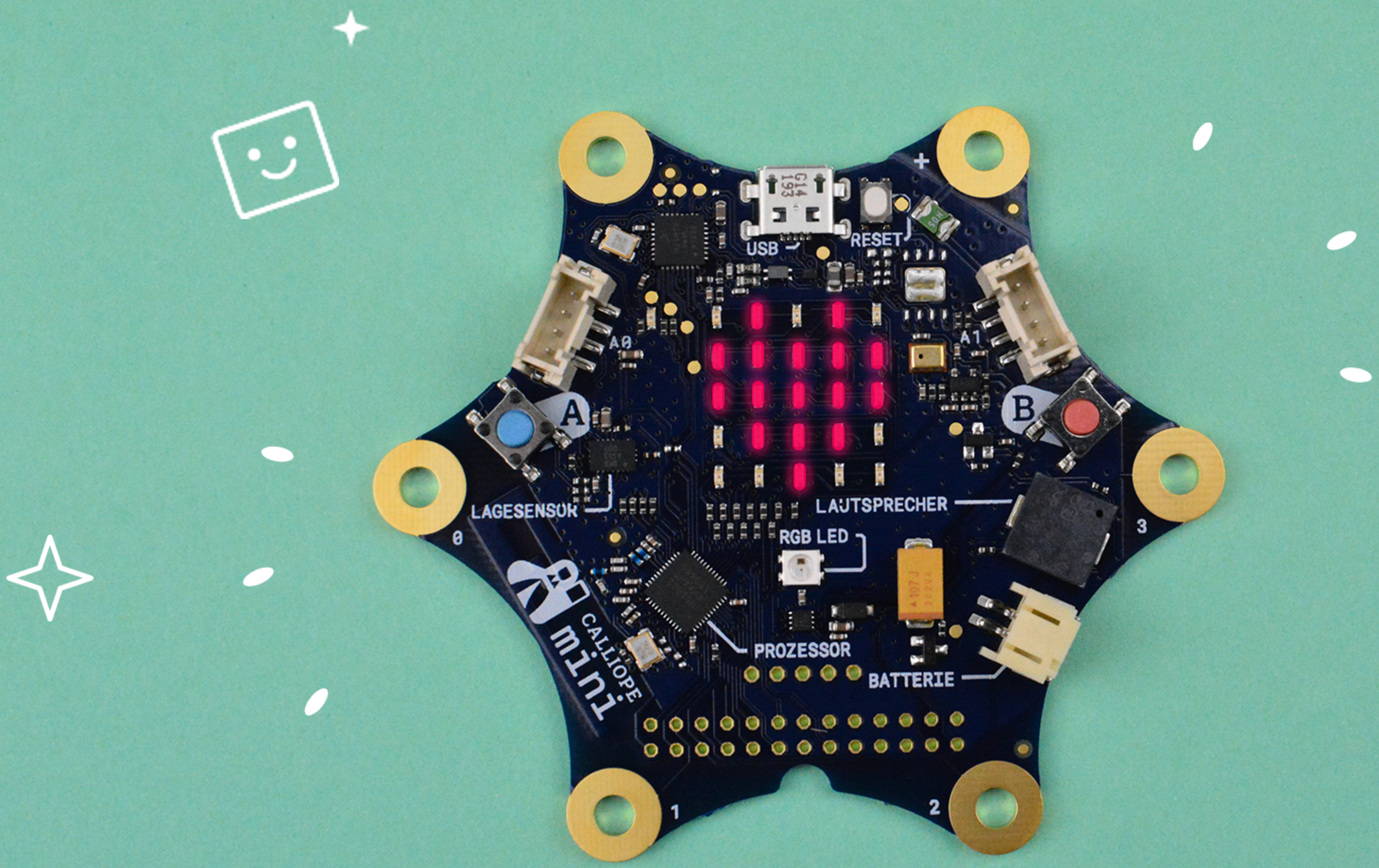
### Secondary school











TUM  
CALLIOPE  
mini

USB

RESET

LAGESENSOR

LAUTSPRECHER

RGB LED

PROZESSOR

BATTERIE

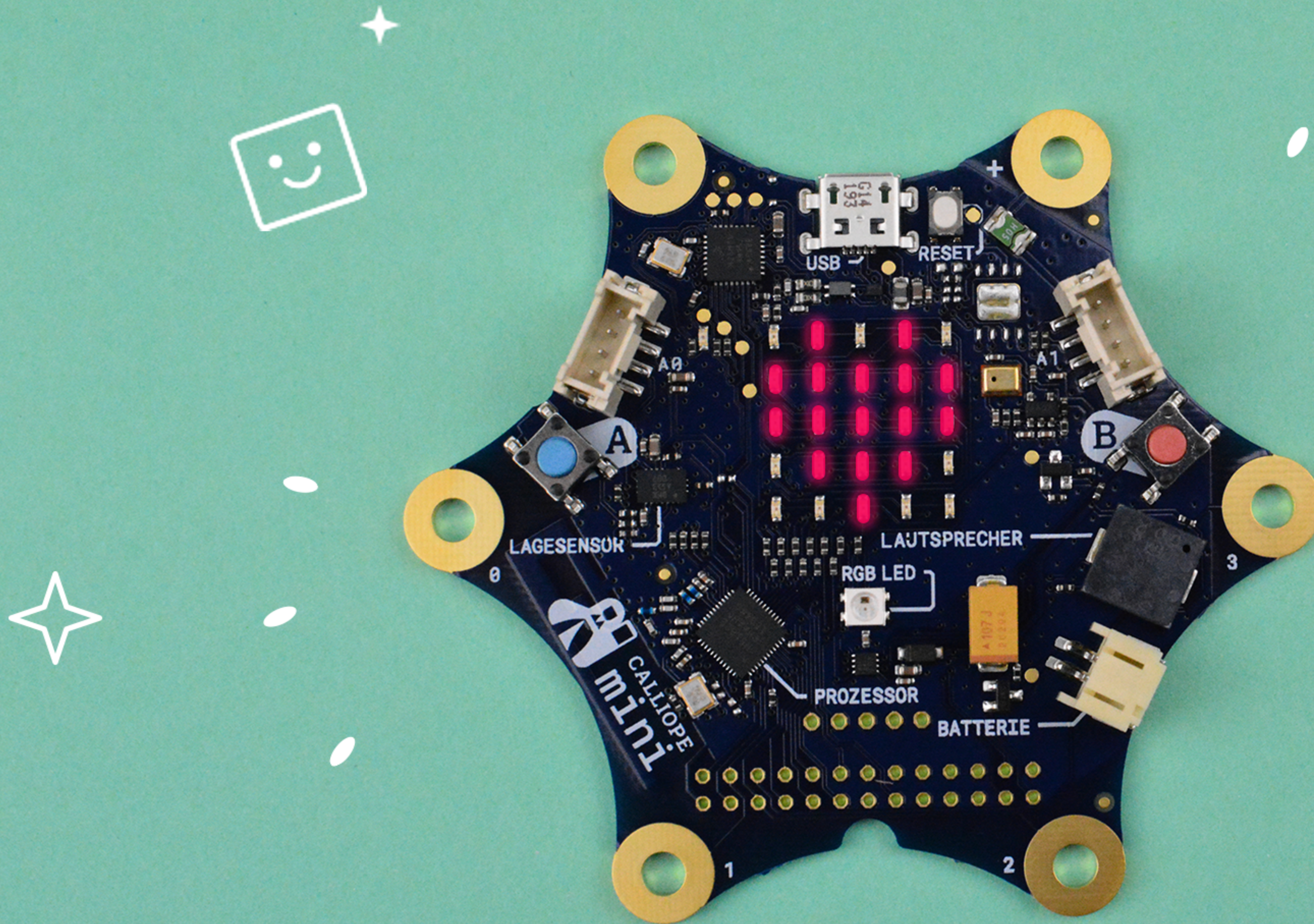
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Nordic NRF51822  
ARM Cortex M0 32bit

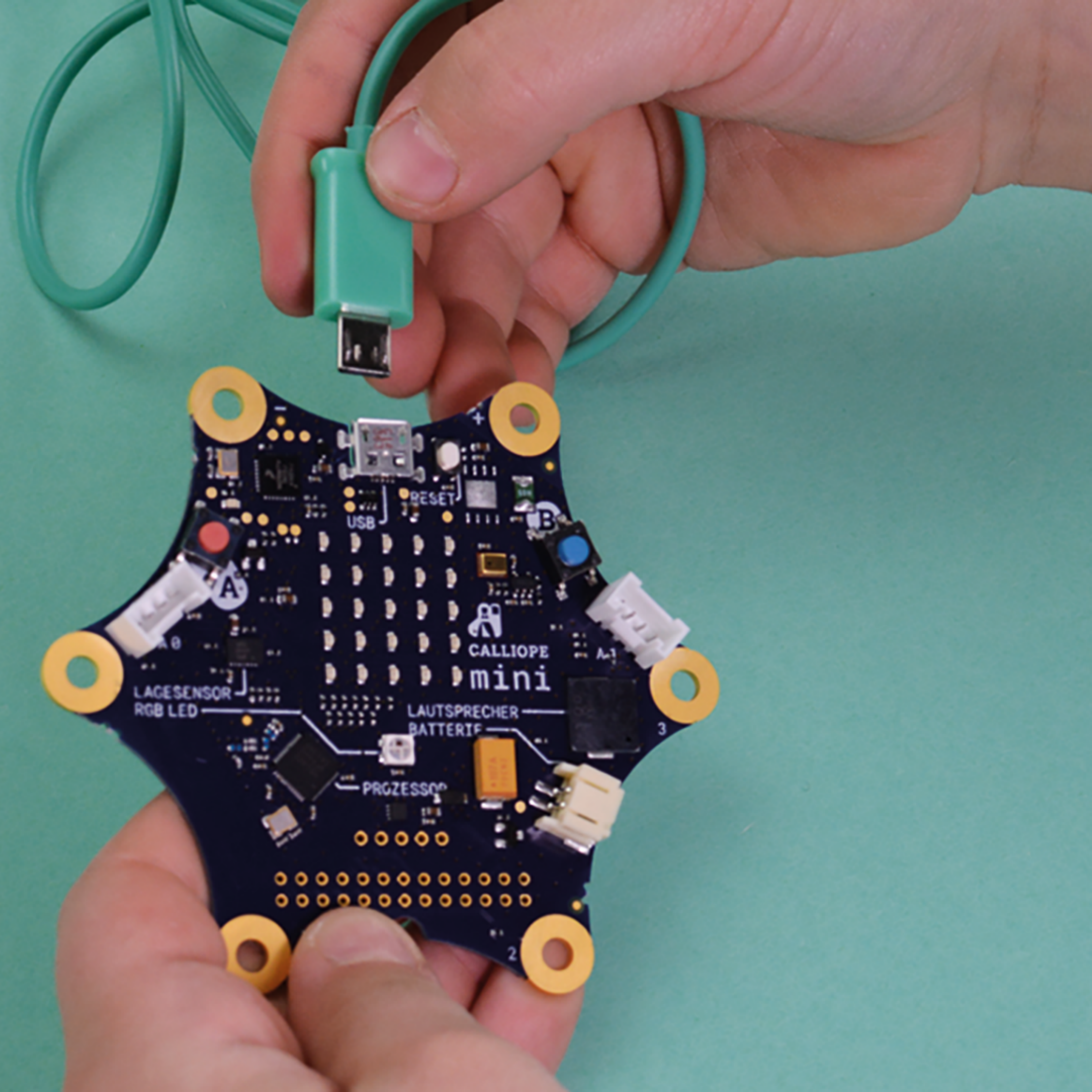
NXP MKL26Z

I2C, UART, SPI

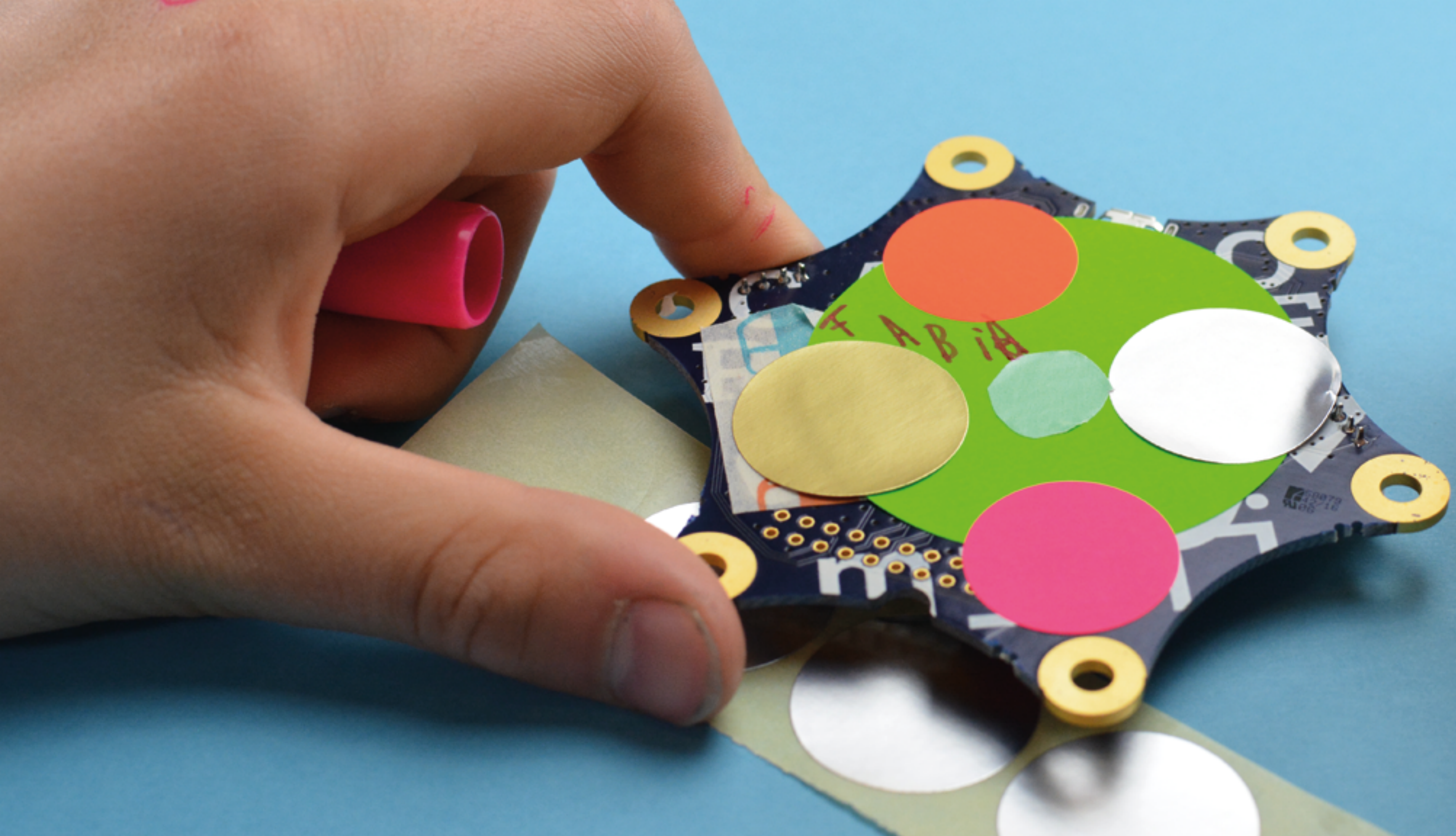
TI H-Bridge

BOSCH BMX055  
9-Axis Sensor





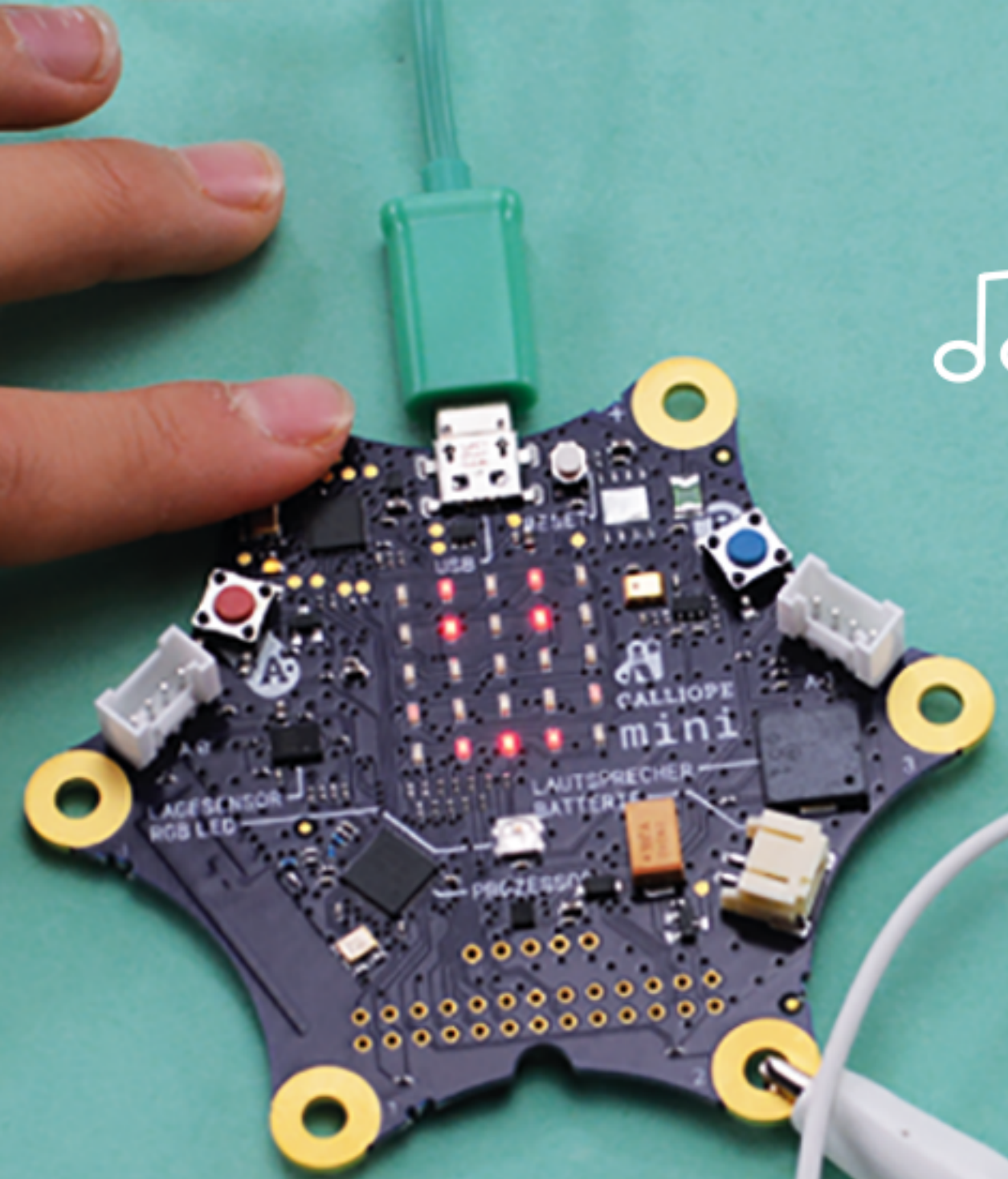




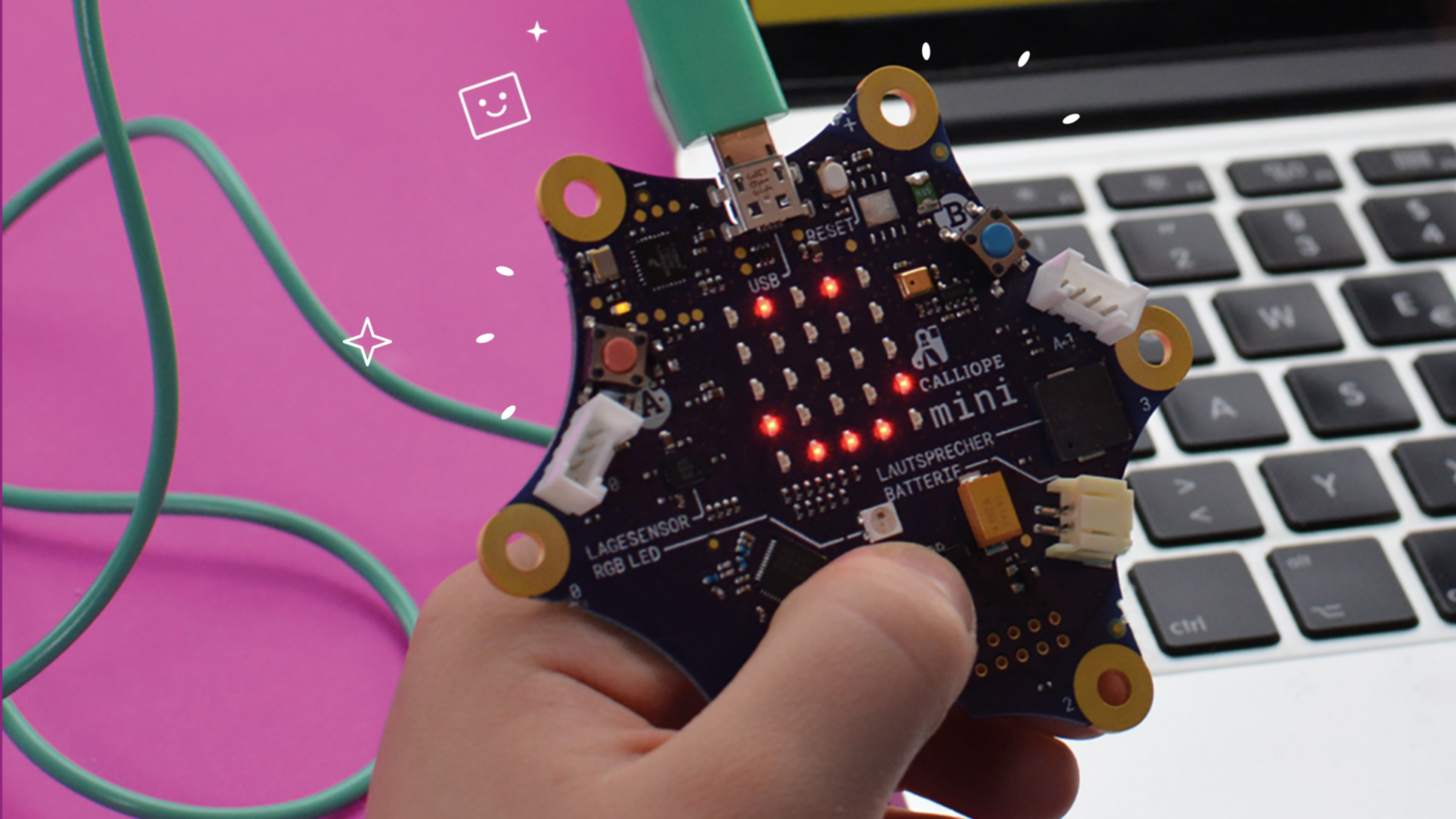












LAGESENSOR  
RGB LED

RESET  
USB

CALLIOPE  
mini

LAUTSPRECHER  
BATTERIE

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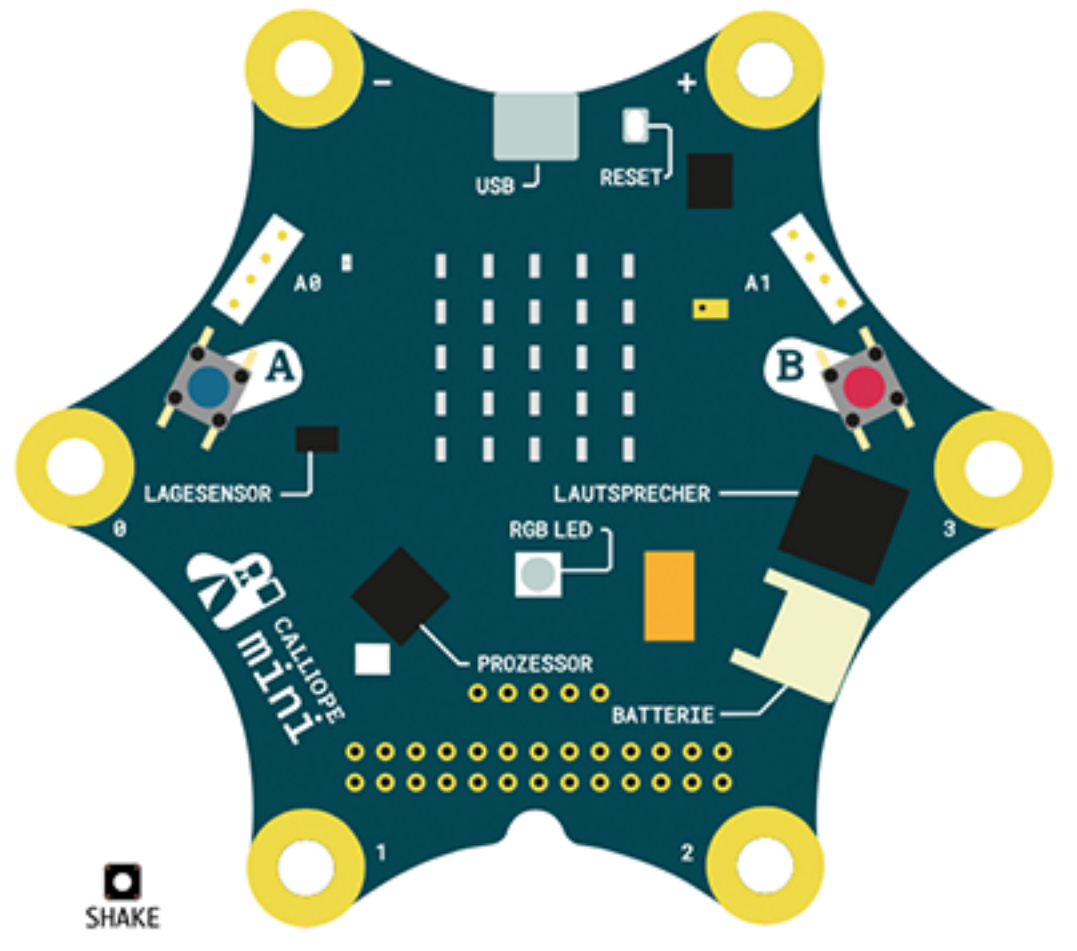
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- Suche...
- Grundlagen
  - Eingabe**
  - Musik
  - LED
  - Schleifen
  - Logik
  - Platzhalter
  - Mathematik
  - Funk
  - Motoren
  - Fortgeschritten
  - Paket hinzufügen

```

wenn geschüttelt
  Bildschirminhalt löschen
  zeige Nummer 1 + wähle eine zufällige Zahl zwischen 0 und 5
  
```

Herunterladen

Würfel







vitra.

CALLIPE.CC

CALLIPE mini

CALLIPE.CC

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CALLIPE mini

L

OOP  
RRS  
SAT  
U.V.S.W



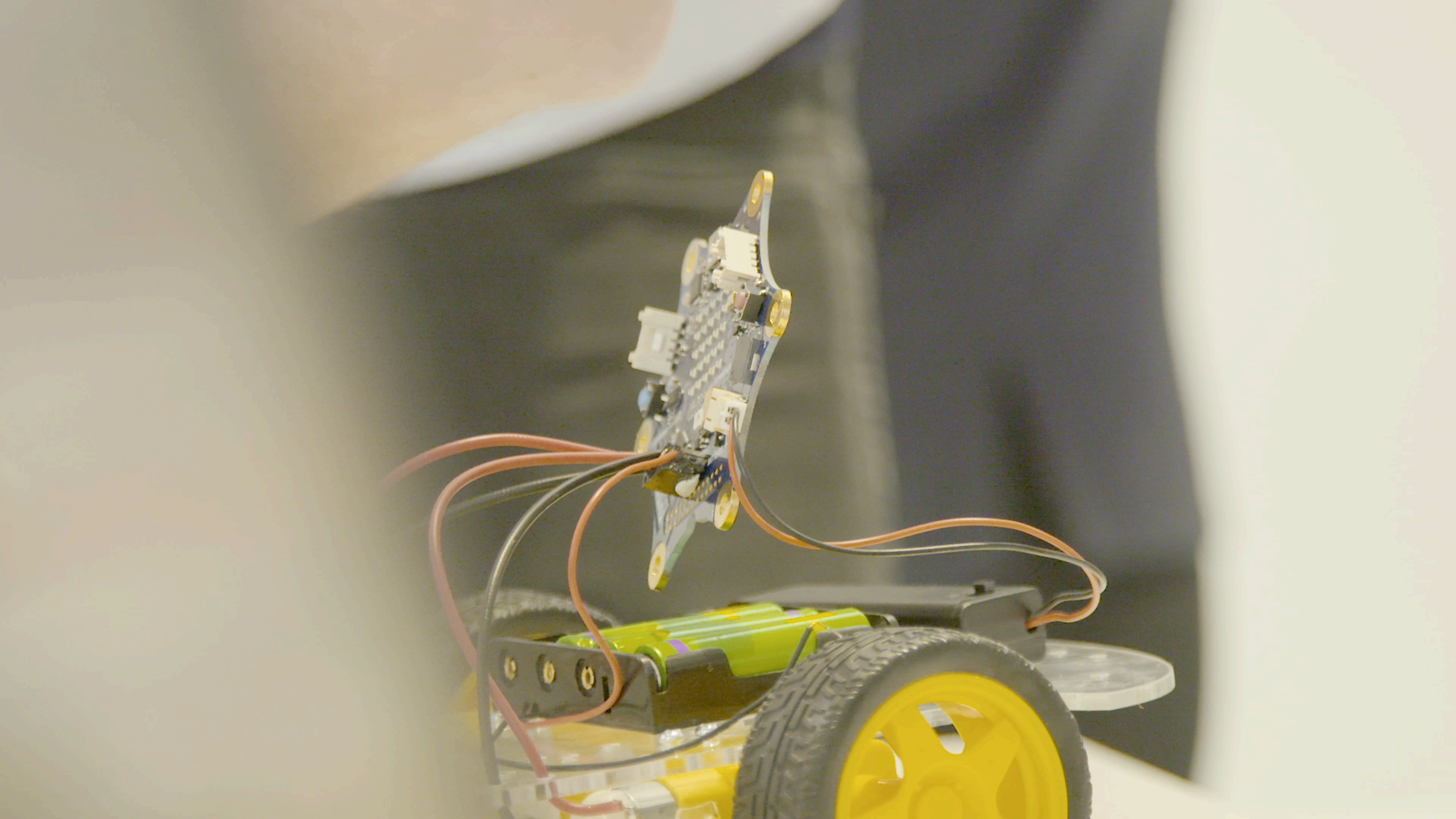




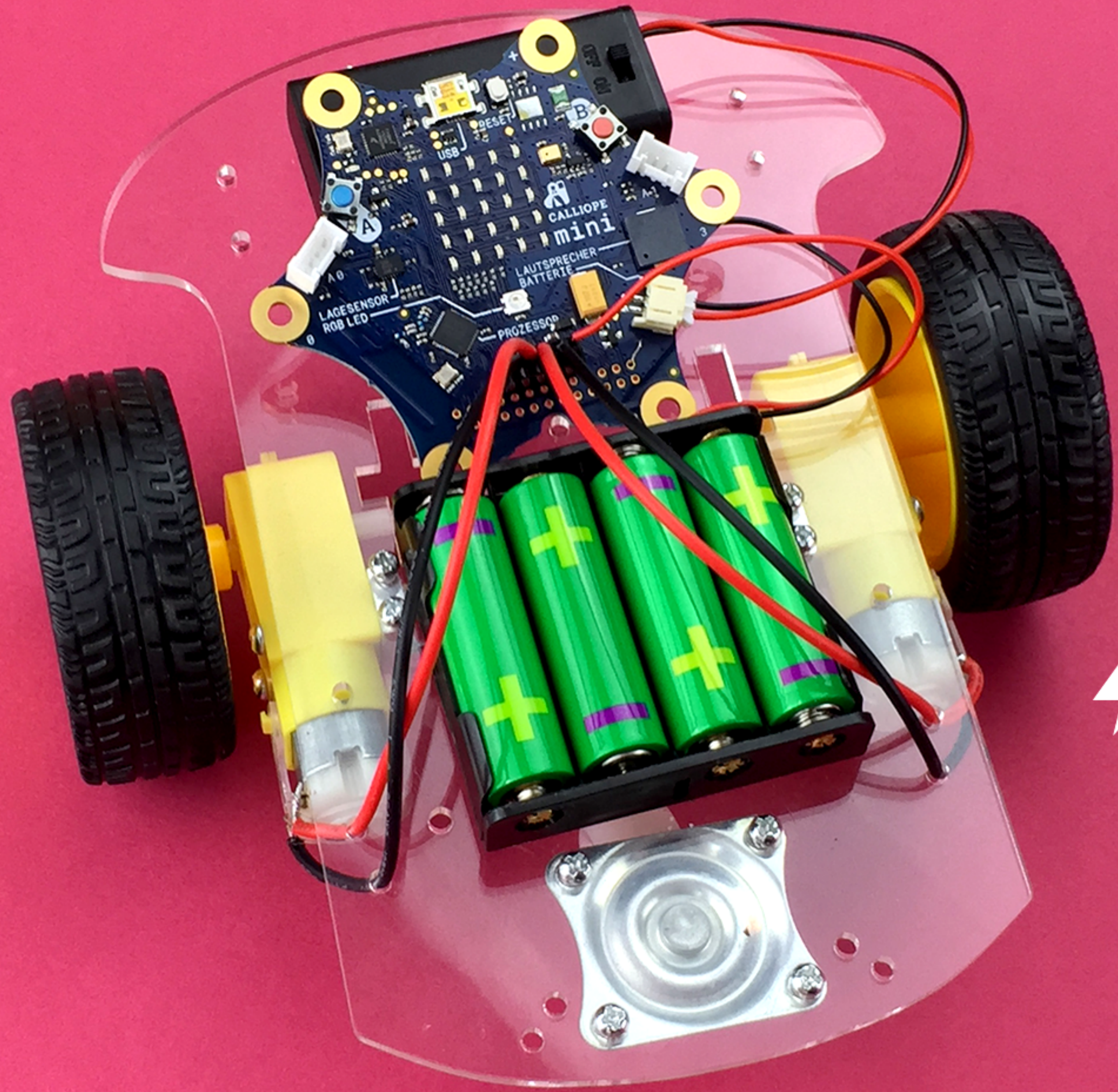
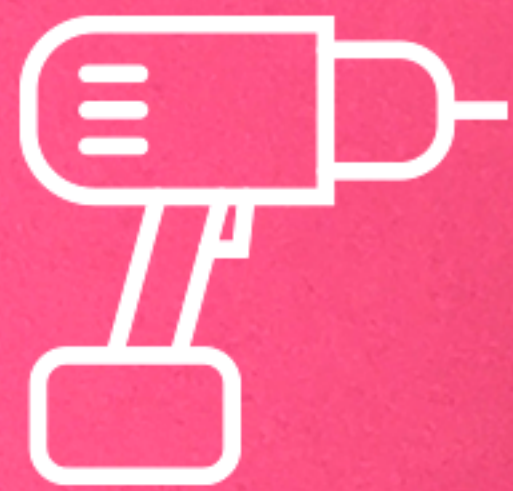


















# CALLIOPE mini

- 50K Boards 2017
- 100K+ 2018 International Distribution



# RIOT OS & CALLIOPE mini

- Open Source
- Advanced Embedded OS
- Available



# RIOT OS & CALLIOPE mini

- Open Source
- Advanced Embedded OS
- Available
  
- Hardware Changes/Upgrades
- Additional Hardware





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