

# Gruppe A Auslöten

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# Planen des Vorgangs



Idee

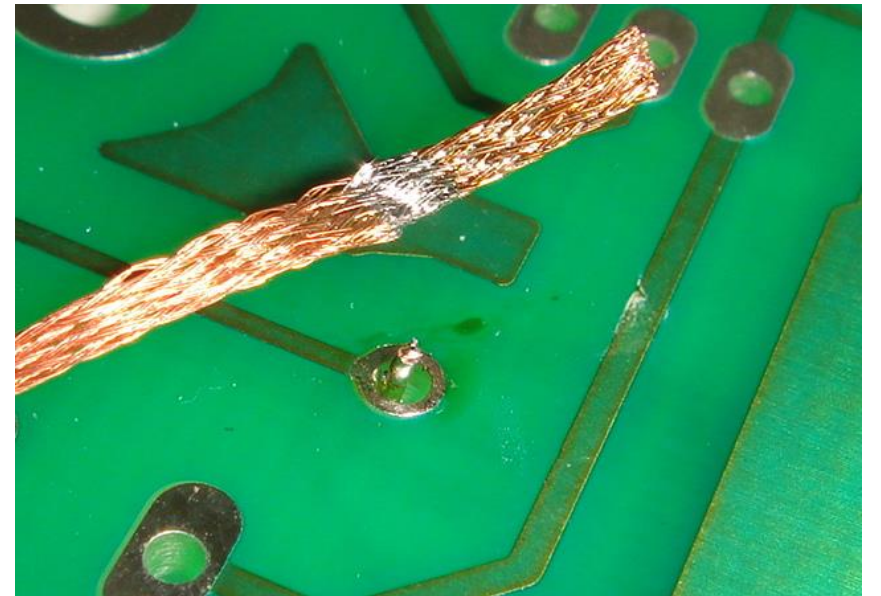
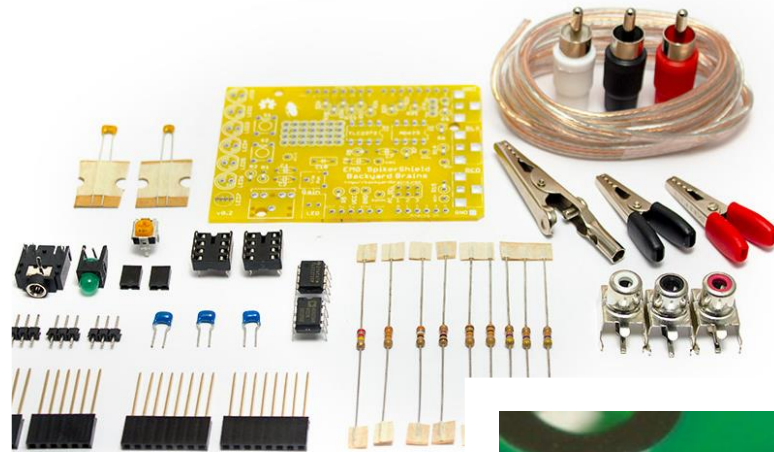


Prototyp



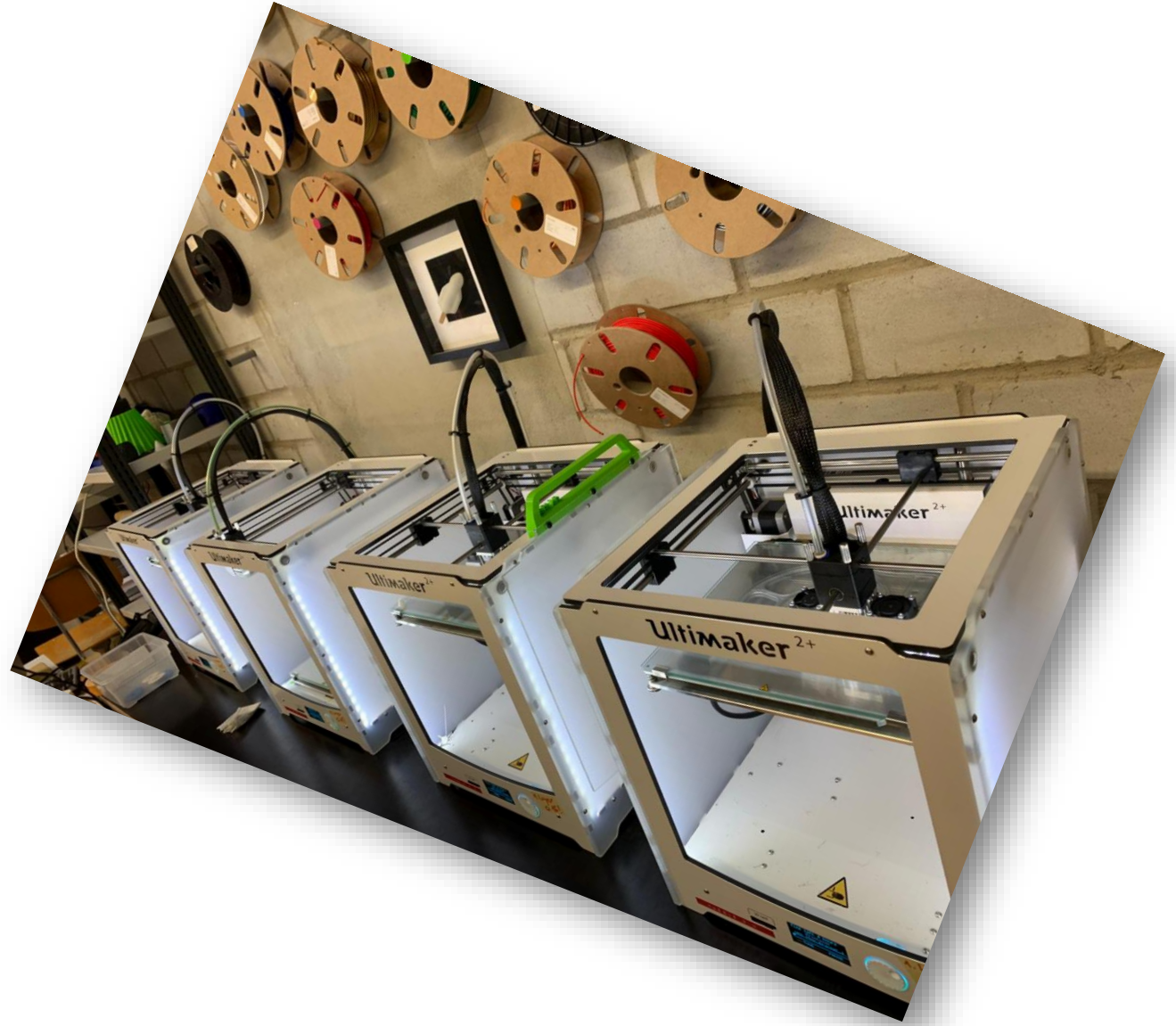
Entwicklung

# Namensgebung



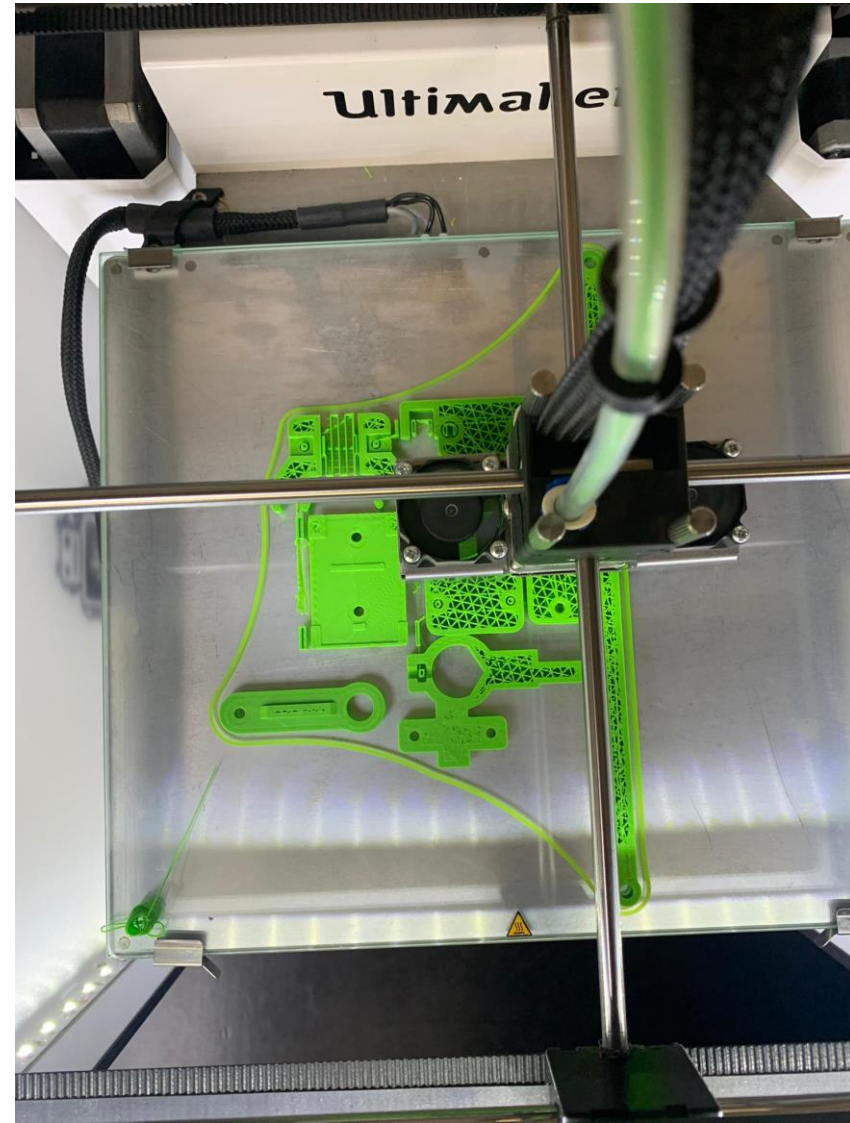
# Erlernete Fertigungsverfahren

# 3D Drucker

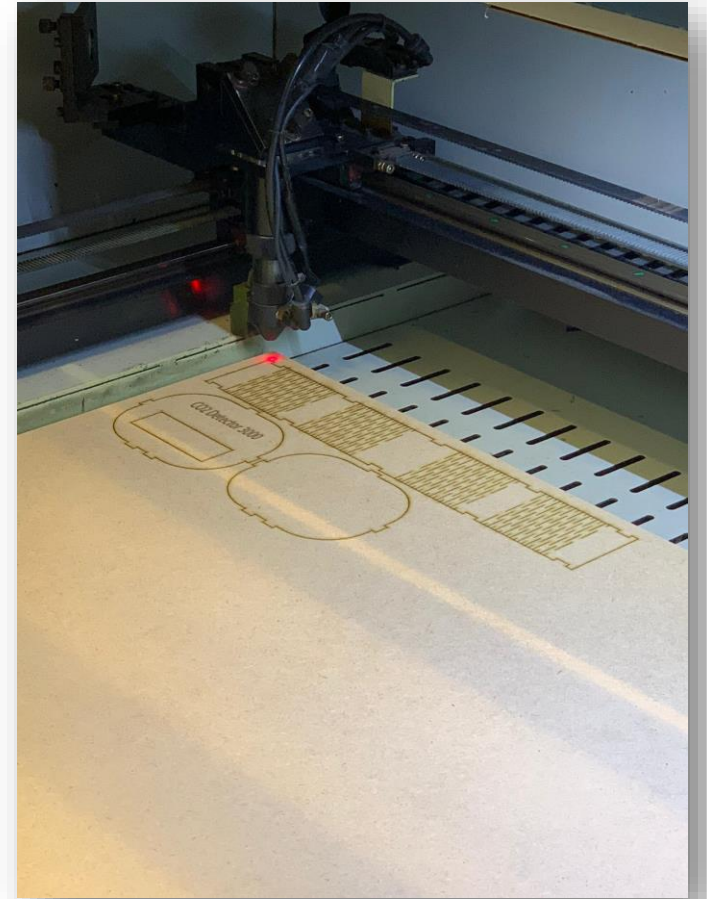




Drucken

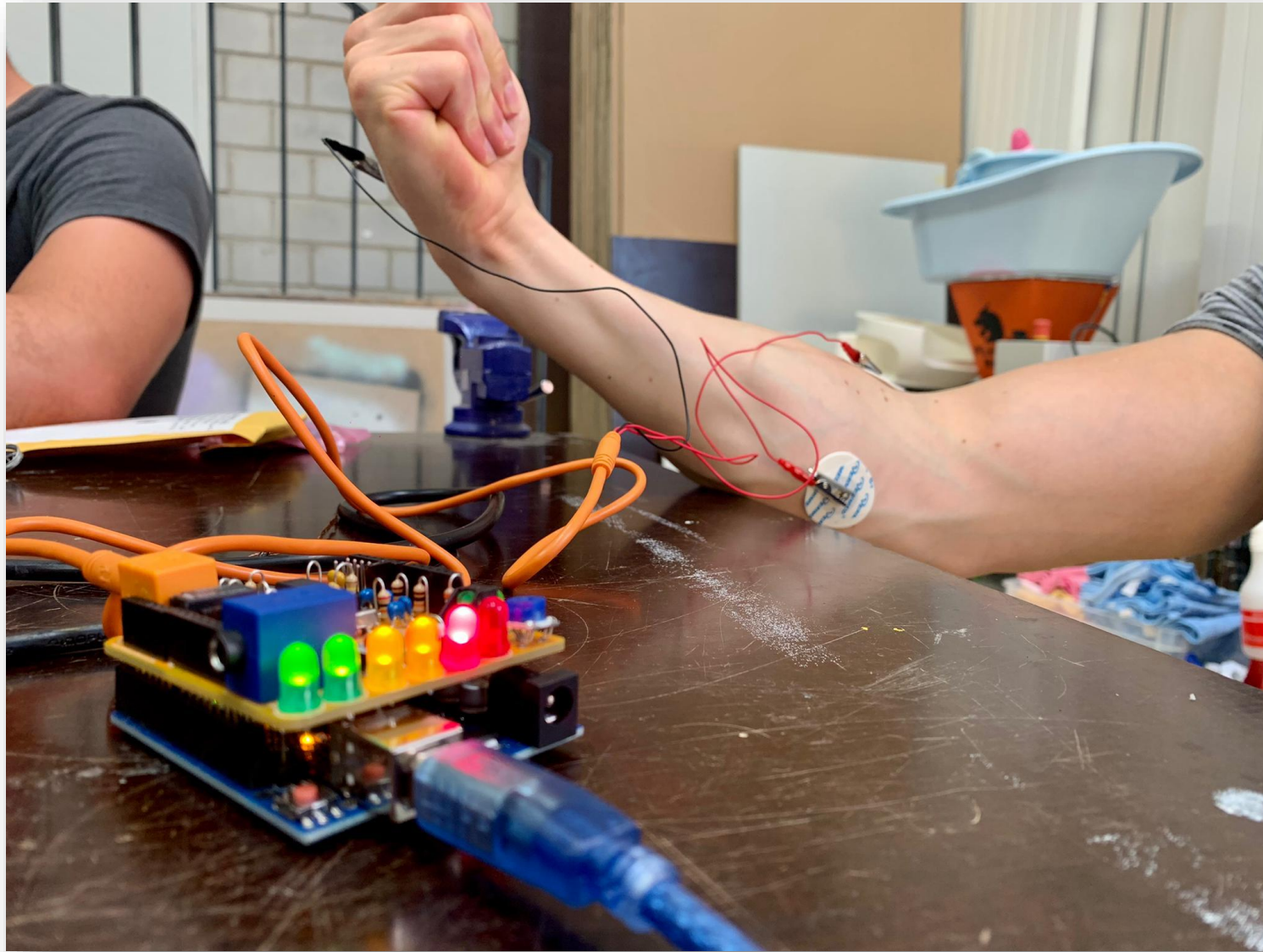


# Lasercutter



Projekte





Hack o

# Hack o

- Platine bestückt und gelötet
- Elektroden nehmen Signal vom Muskel ab
- Verstärkung des Signals
- Anzeige der Intensität durch LED's
- Grosses Anwendungsgebiet für Projekte

CO<sub>2</sub>  
Messgerät  
Hack 1

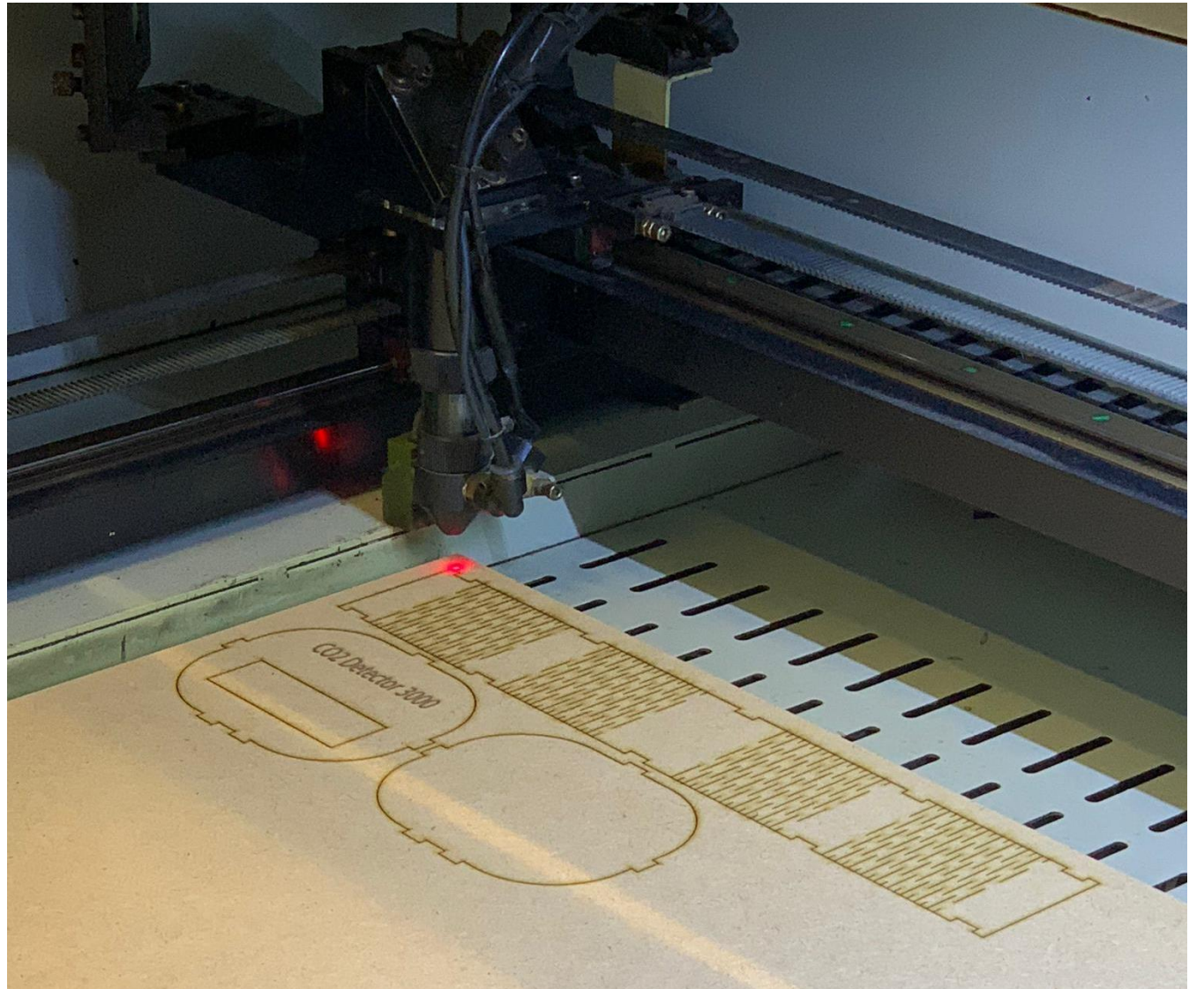




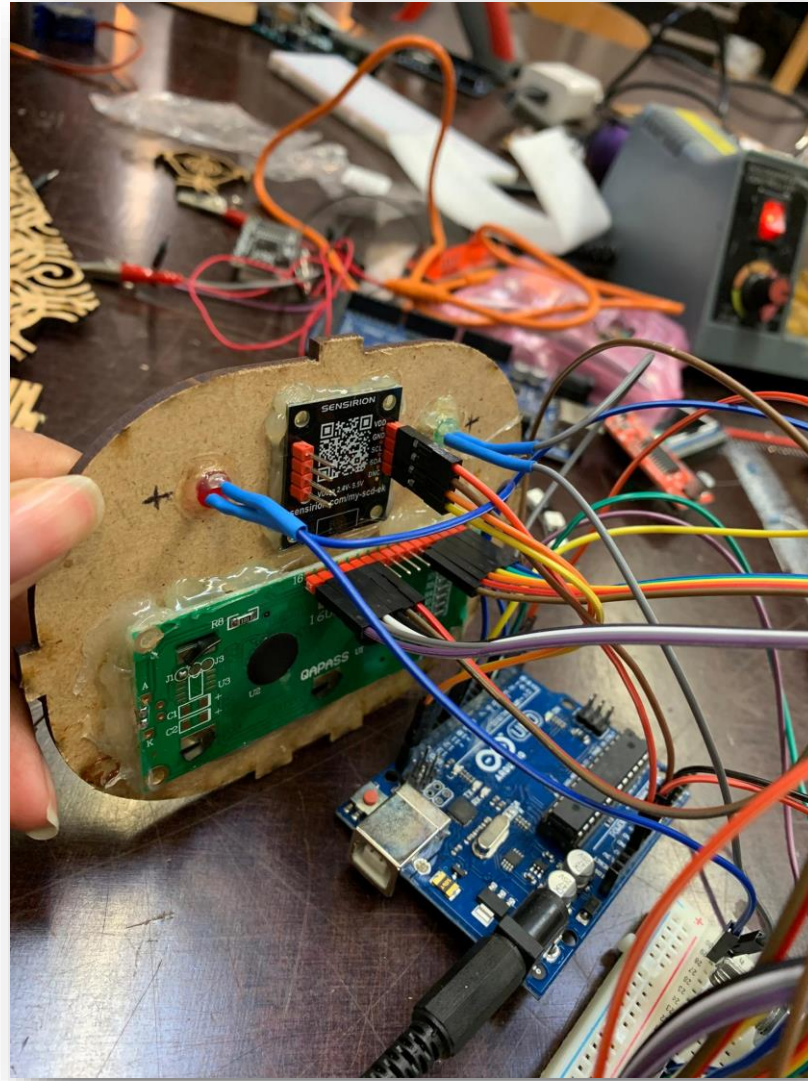
# Sensirion SCD41 CO2

- Photoakustik Sensor
- Temperatur
- Luftfeuchtigkeit
- CO<sub>2</sub> Gehalt
- Hohe Genauigkeit, angegebener Bereich 400 – 5'000 ppm
- Ca. 60\$

# Gehäuse lasern



# Löten & Verkabeln

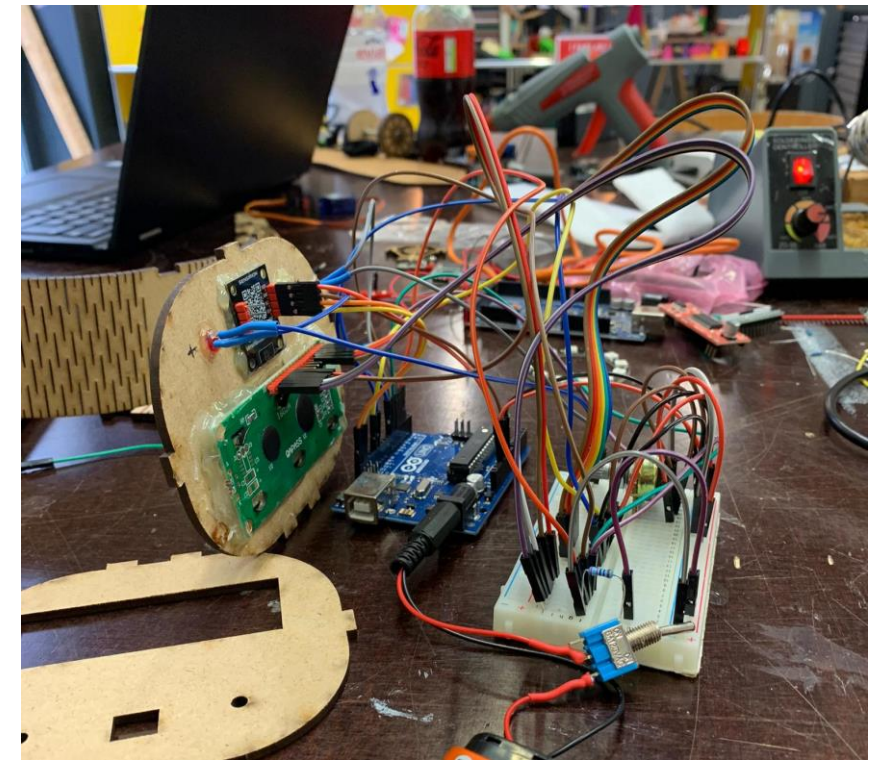
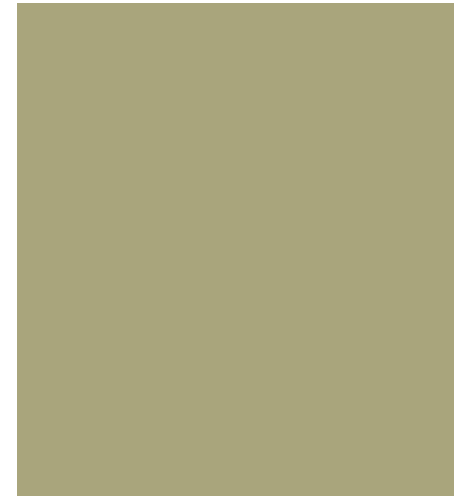
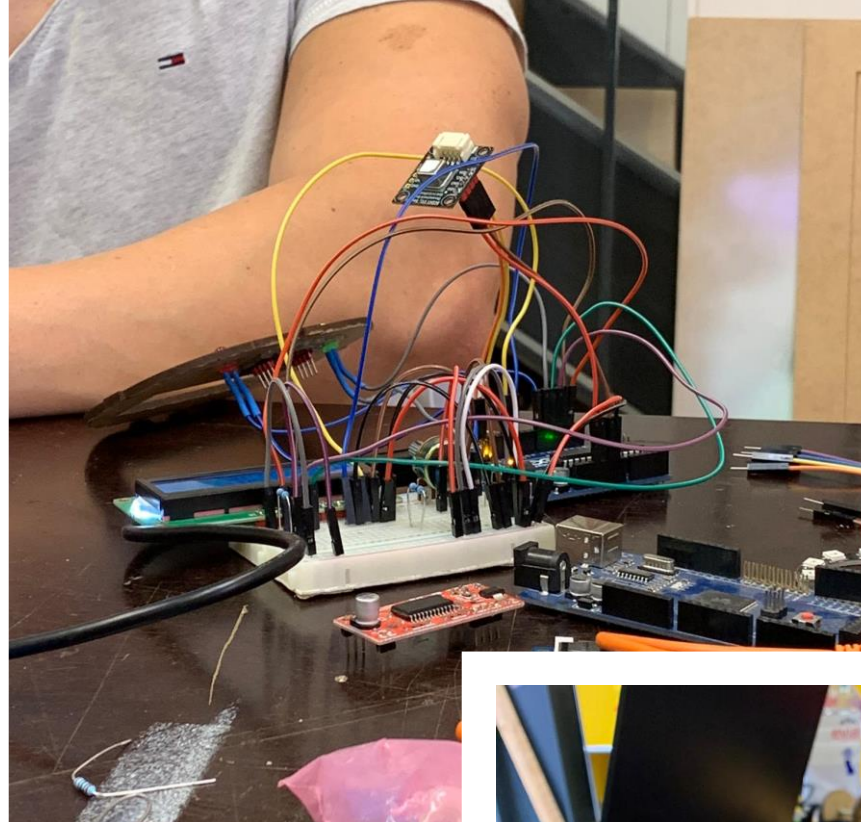




Co2 Wert  
Luftfeuchtigkeit  
Temperatur



# Elektrotechnik



# Code

```
void loop() {
  uint16_t error;
  char errorMessage[256];

  delay(5000);

  // Read Measurement
  uint16_t co2;
  float temperature;
  float humidity;
  error = scd4x.readMeasurement(co2, temperature, humidity);
  lcd.clear();
  if (error) {
    Serial.print("Error trying to execute readMeasurement(): ");
    errorToString(error, errorMessage, 256);
    Serial.println(errorMessage);
    lcd.print("Error");
  } else if (co2 == 0) {
    Serial.println("Invalid sample detected, skipping.");
    lcd.print("Error");
  } else {
    lcd.setCursor(0,0);          //setCursor(col, row)
    lcd.print("Co2: ");
    lcd.print(co2);
    Serial.print(" Co2: ");
    Serial.print(co2);
    Serial.print("\t");
    Serial.print("Temperature:");
    Serial.print(temperature);
    lcd.setCursor(0,1);        //setCursor(col, row)
    lcd.print("Temp: ");
    lcd.print(temperature);
    Serial.print("\t");
    Serial.print("Hum: ");
    Serial.println(humidity);
    lcd.setCursor(9,0);        //setCursor(col, row)
    lcd.print("Hum: ");
    lcd.print(humidity);
    if (co2 < 1399) {
      ledG.on();
      ledR.off();
    } else {
      ledG.off();
      ledR.on();
    }
  }
}
```



# Feldtests



(Hack 2)

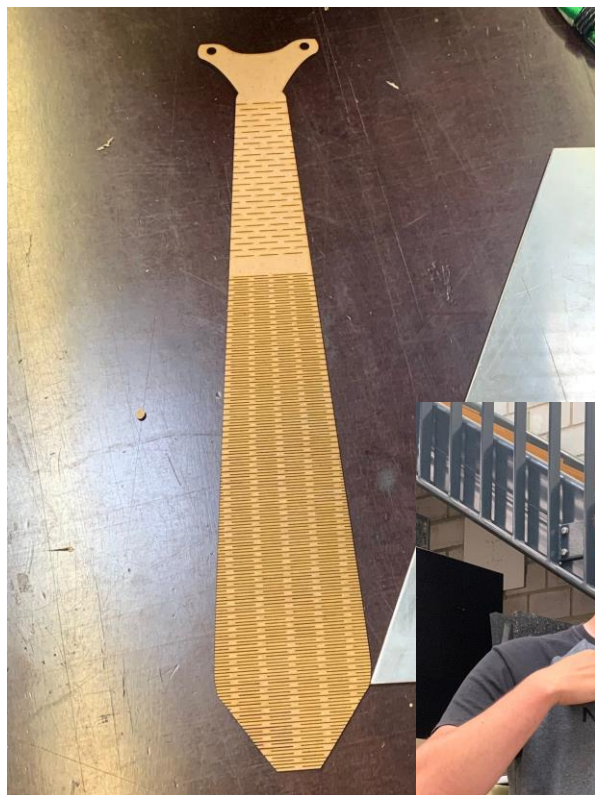
Fehlende Teile



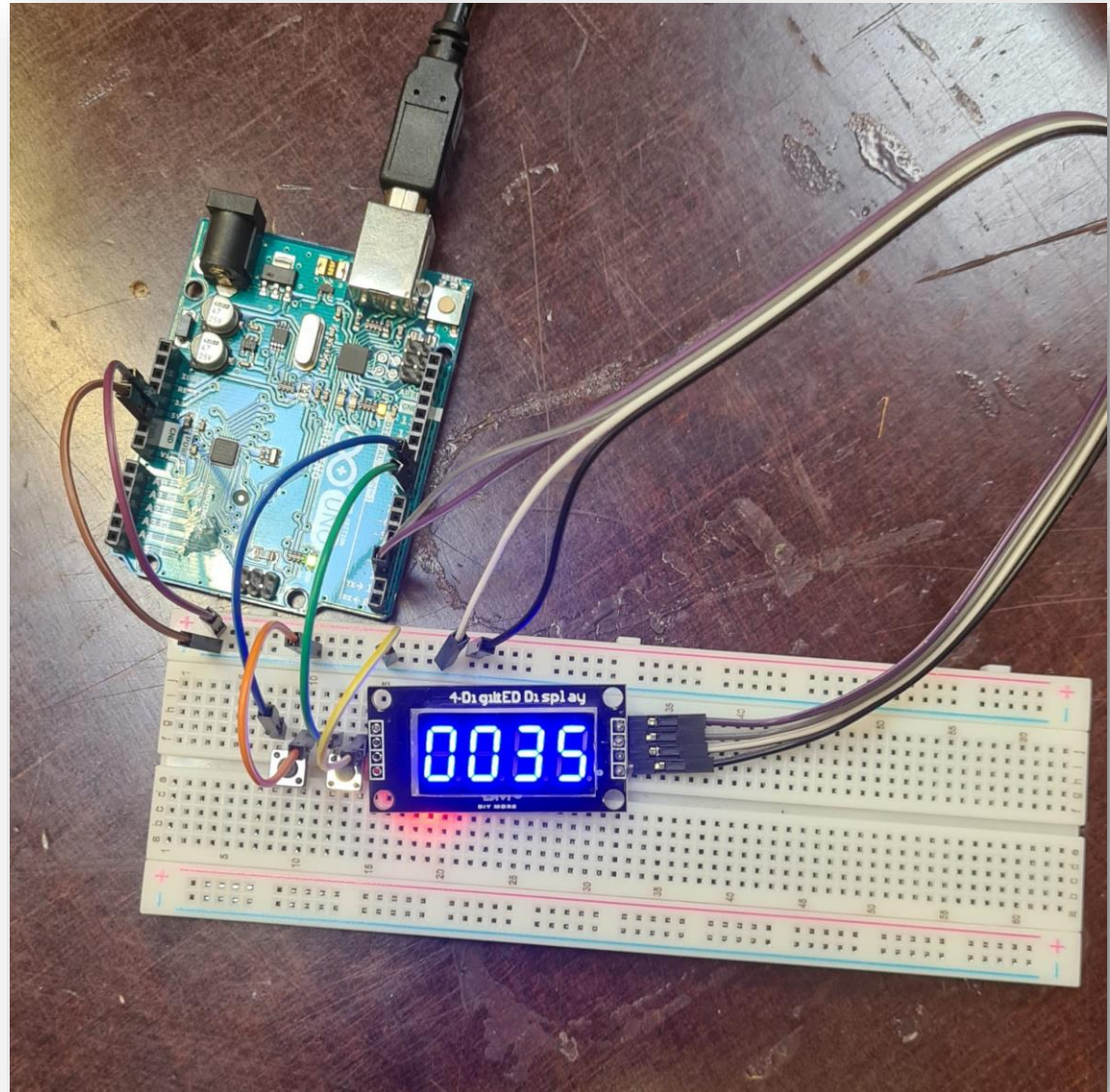




# Krawatte

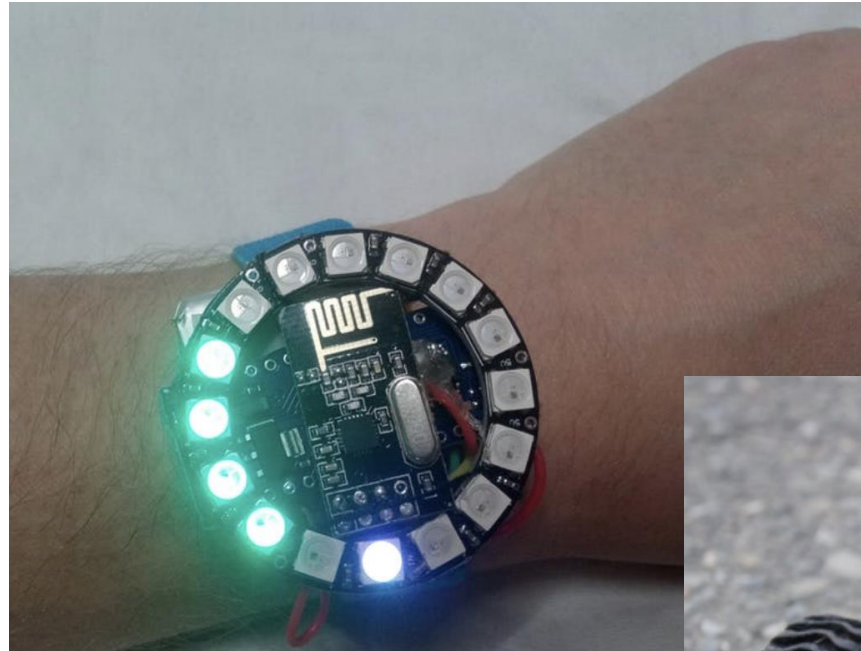


# Stoppuhr



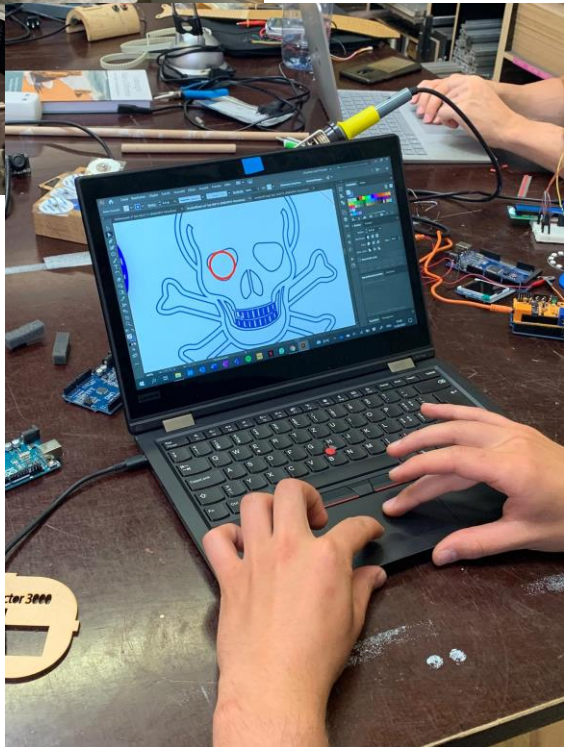
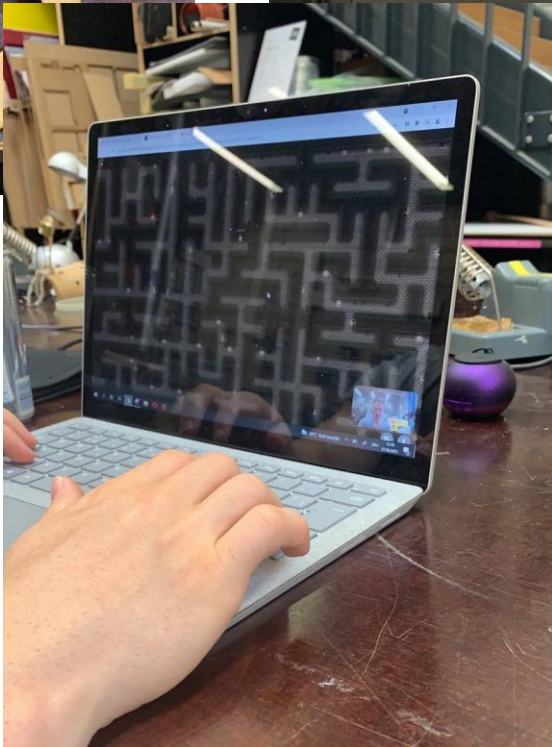
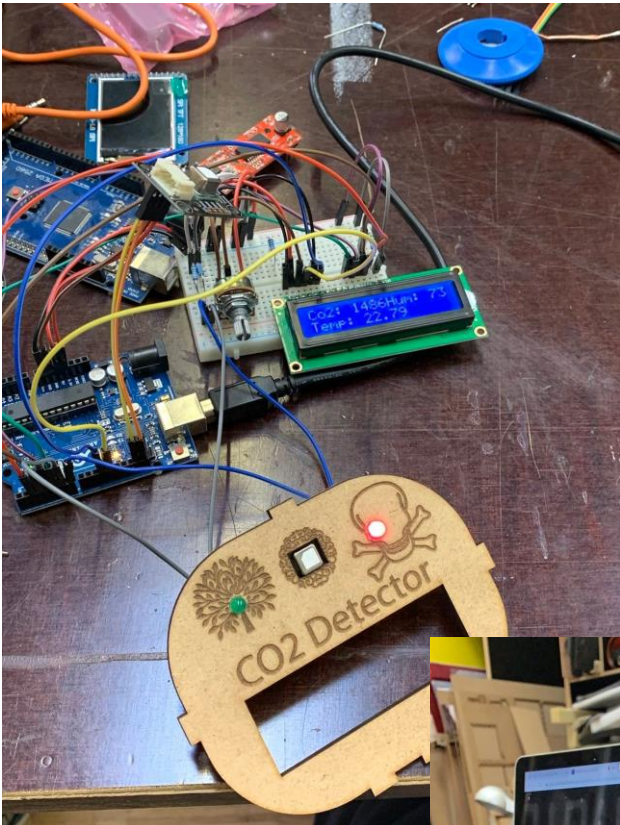


Recherchen  
für weitere  
Projekte





# Diverses





FAZIT

Rückschläge  
gehören  
dazu





A group of five people are seated around a long wooden table in a meeting room. They appear to be in a collaborative discussion. The room has large windows in the background, through which a multi-story building under construction is visible. The scene is overlaid with a semi-transparent olive-green filter. The text "Vielen Dank" is centered in white on the left side of the image.

Vielen Dank