Arduino und LCD

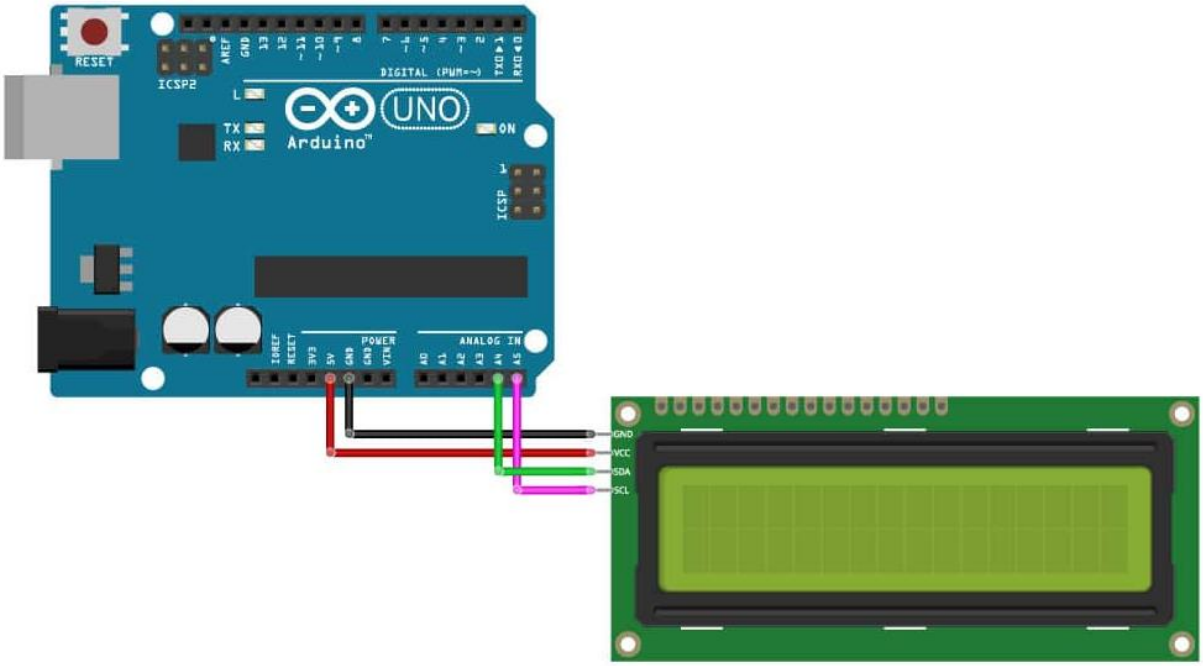
https://www.makerguides.com/character-i2c-lcd-arduino-tutorial/

Grundlagen

Ein Zweizeilen LCD Display 16x2 an den Arduino i2c Bus anschließen.

- Software-Bibliothek
- Spannungsversorgung
- Mit i2c Bus

Schaltung Aufbau



I2C Character LCD	Arduino
GND	GND
VCC	5 V
SDA	A4
SCL	A5

Um die i2c Bus Adresse des Bauteils zu finden verwenden wir eine Software:
I2c-scanner.ino

I2C address scanner Serial Monitor output

Software/Programm

ESP-Wetter.ino | LiquidCrystal_I2C.h | LCD-i2c-sample.ino

```
/* I2C LCD with Arduino example code. More info: https://www.makerguides.com */
// Include the libraries:
// LiquidCrystal_I2C.h: https://github.com/johnrickman/LiquidCrystal_I2C
// CoderDojo Beispiel September 2020
//


#include <Wire.h> // Library for I2C communication
#include <LiquidCrystal_I2C.h> // Library for LCD

// Wiring: SDA pin is connected to A4 and SCL pin to A5.
// Connect to LCD via I2C, default address 0x27 (A0-A2 not jumpered)

LiquidCrystal_I2C lcd = LiquidCrystal_I2C(0x27, 16, 2); // Change to (0x27,20,4) for 20x4 LCD.

void setup() {
  // Initiate the LCD:
  lcd.init();
  lcd.backlight();
}


void loop() {
  // Print 'Hello World!' on the first line of the LCD:
  lcd.setCursor(0, 0); // Set the cursor on the first Zeichen and first Zeile.
  lcd.print("Hello World!"); // Print the string "Hello World!"

  lcd.setCursor(2, 1); //Set the cursor on the third column and the second row (counting starts at 0!).
  lcd.print("LCD tutorial");
}
```