

<https://www.github.com/io7m/wederian>  
Mark Raynsford

Sheet: /  
File: wederian.kicad\_sch

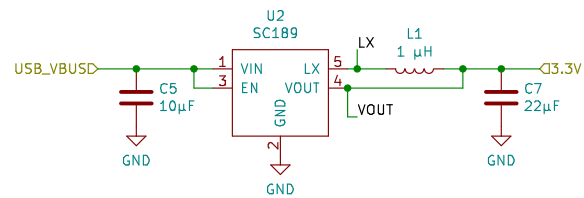
**Title: Wederian**

Size: A4 Date: 2021-10-24

KiCad E.D.A. kicad 5.99.0-unknown-2a6c73b8df~142~ubuntu21.04.1

Rev: 0.2.0

Id: 1/7

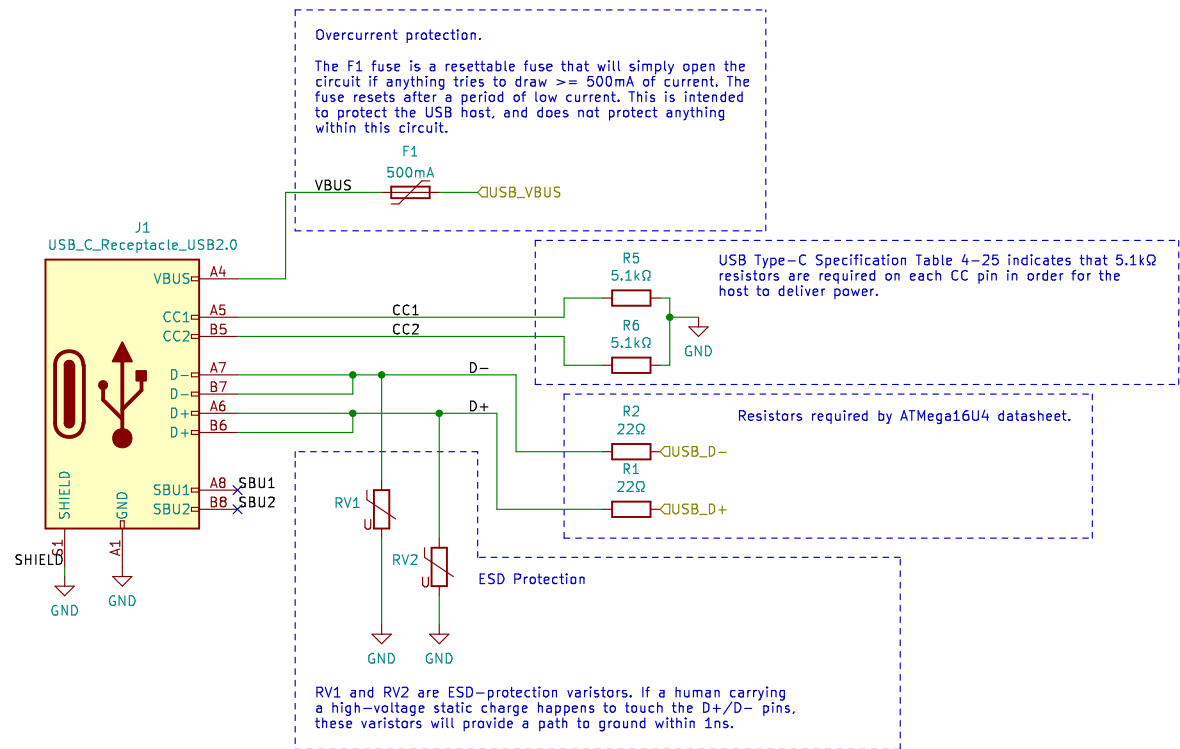


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Sheet: /Power Regulation/  
File: powerRegulation.kicad\_sch

**Title: Wederian**

Size: A4	Date: 2021-10-24	Rev: 0.2.0
KiCad E.D.A. kicad 5.99.0-unknown-2a6c73b8df~142~ubuntu21.04.1	Id: 2/7	

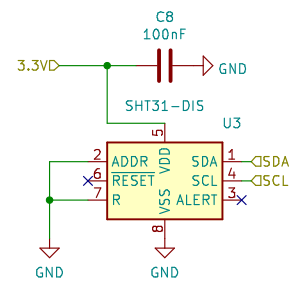


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Sheet: /USB/  
File: usb.kicad\_sch

**Title: Wederian**

Size: A4	Date: 2021-10-24	<b>Rev: 0.2.0</b>
KiCad E.D.A.	kicad 5.99.0-unknown-2a6c73b8df~142~ubuntu21.04.1	Id: 3/7



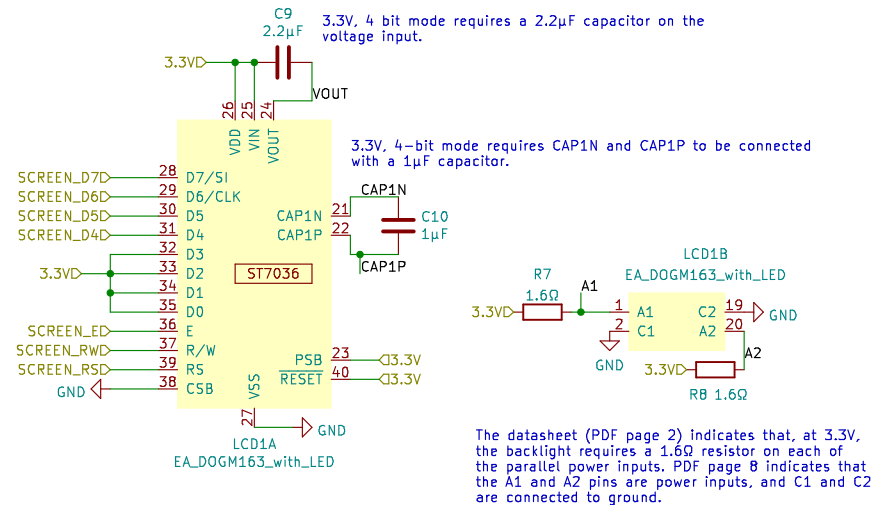
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Sheet: /Sensor/  
File: sensor.kicad\_sch

**Title: Wederian**

Size: A4	Date: 2021-10-24	<b>Rev: 0.2.0</b>
KiCad E.D.A.	kicad 5.99.0-unknown-2a6c73b8df~142~ubuntu21.04.1	Id: 4/7

The LCD display is an EA-DOGM1635-A, with a white EA-LED55X31-W backlight. The display can be configured in multiple ways, and this schematic is using the 3.3V mode with a 4-bit interface. See page 4 of the datasheet.



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Sheet: /LCD/  
File: lcd.kicad\_sch

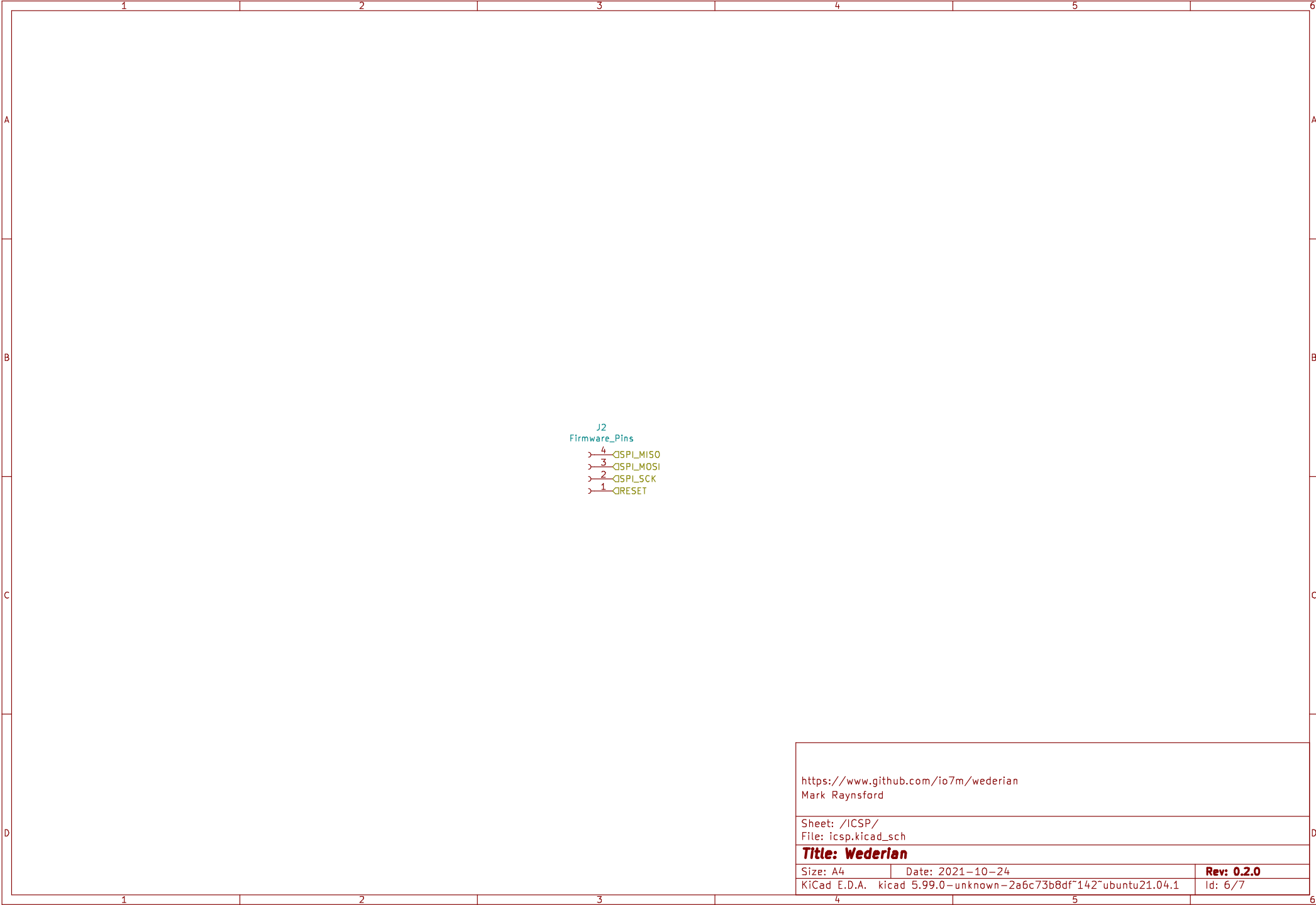
**Title: Wederian**

Size: A4	Date: 2021-10-24
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Rev: 0.2.0

KiCad E.D.A.	kiCad 5.99.0-unknown-2a6c73b8df~142~ubuntu21.04.1
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ATMega16U4 datasheet, section 21.5: "A 10µF capacitor is highly recommended on VBUS line".

ATMega16U4 datasheet, section 21.3.2 recommends a 1µF capacitor on the UCAP pin.

Pull-up resistor recommended by AVR042 application notes.

Numerous Atmel application notes recommend a 100nF decoupling capacitor on Vcc pins as standard.

I<sup>2</sup>C recommends 10kΩ pull-up resistors.

ATmega16U4-AU

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Sheet: /Microcontroller/  
File: microcontroller.kicad\_sch

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Size: A4	Date: 2021-10-24	Rev: 0.2.0
KiCad E.D.A. kicad 5.99.0-unknown-2a6c73b8df~142~ubuntu21.04.1	Id: 7/7	