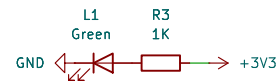
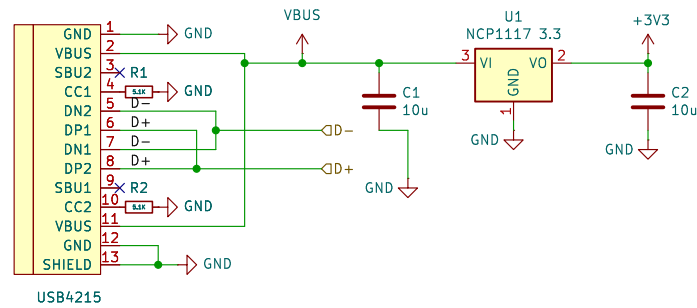


The power source is USB-C connector.  
The NCP1117 transforms +5V to +3V3.



The LED indicates +3V power availability.  
Usually it's green, but you decide ;-)

<https://github.com/xtremespb/frank>

**Mikhail Matveev**

Sheet: /Power/

File: power.kicad\_sch

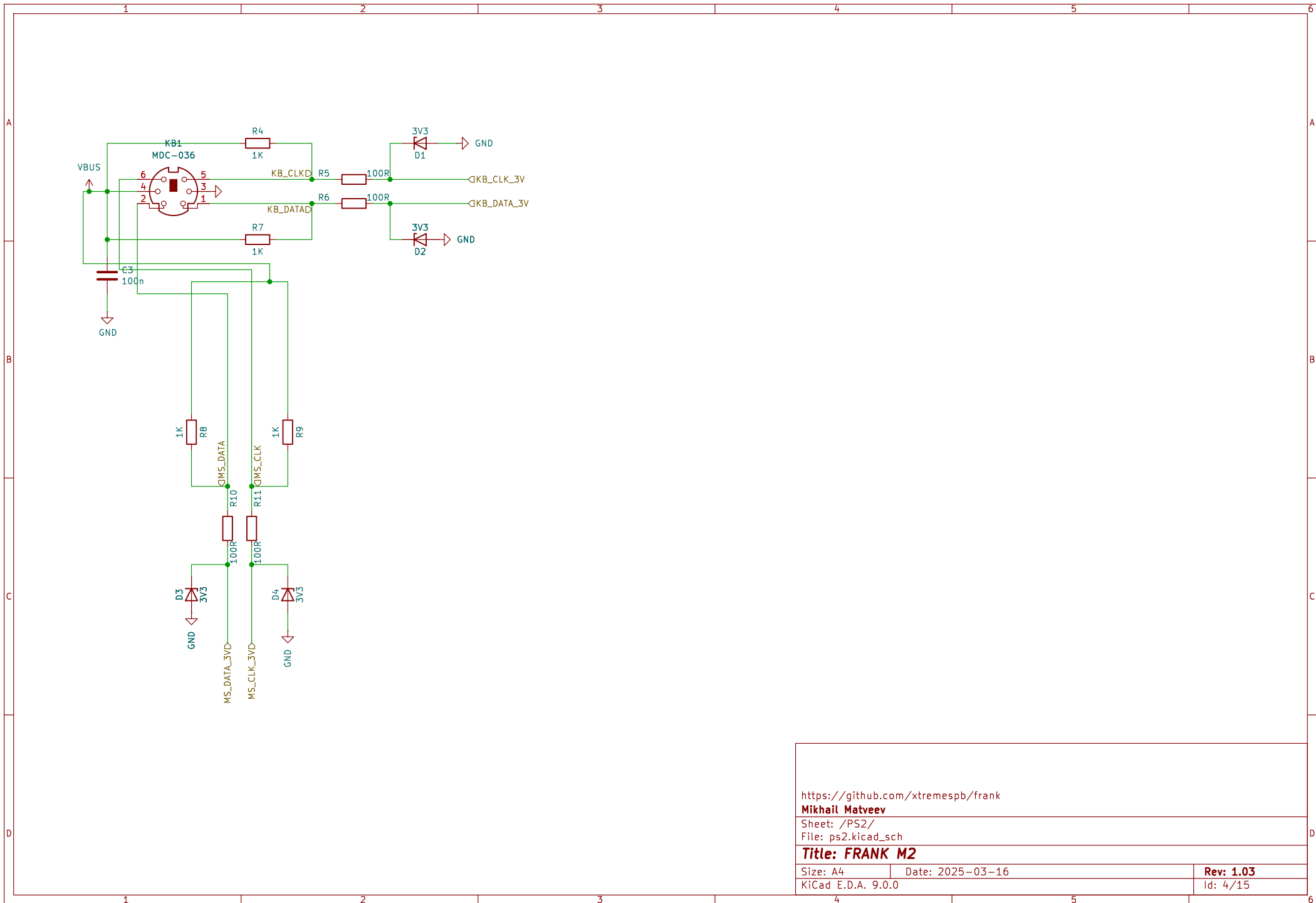
**Title: FRANK M2**

Size: A4 Date: 2025-03-16

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**Rev: 1.03**

Id: 3/15



<https://github.com/xtremespb/frank>

**Mikhail Matveev**

Sheet: /PS2/

File: ps2.kicad\_sch

**Title: FRANK M2**

Size: A4

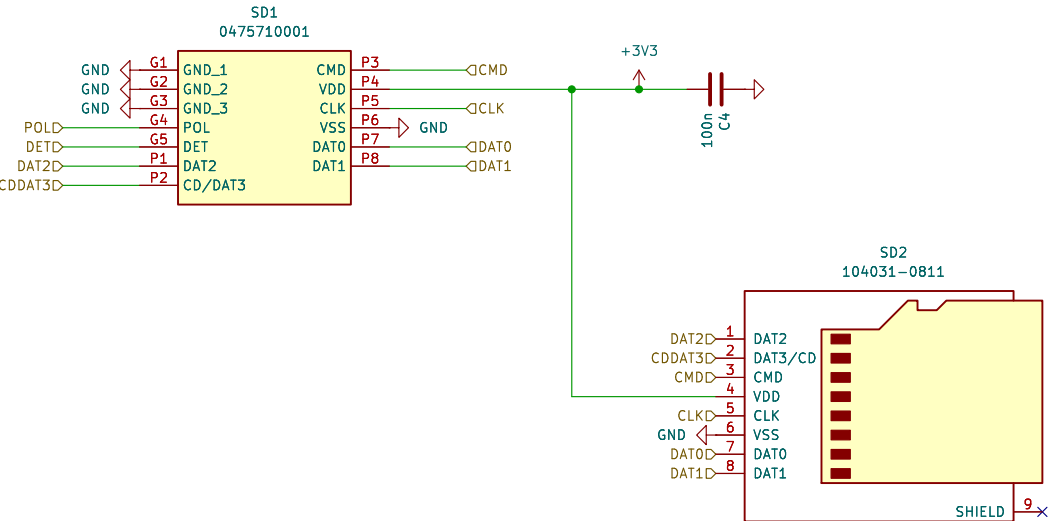
Date: 2025-03-16

**Rev: 1.03**

KiCad E.D.A. 9.0.0

Id: 4/15

Short TF Card slot is used to save some space on the PCB.



<https://github.com/xtremespb/frank>

**Mikhail Matveev**

Sheet: /Micro SD/

File: sd.kicad\_sch

**Title: FRANK M2**

Size: A4

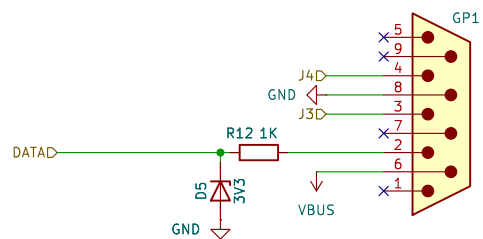
Date: 2025-03-16

**Rev: 1.03**

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Id: 5/15

The gamepad uses standard DB9 male socket.



<https://github.com/xtremespb/frank>

**Mikhail Matveev**

Sheet: /Gamepad 1/

File: gamepad.kicad\_sch

**Title: FRANK M2**

Size: A4

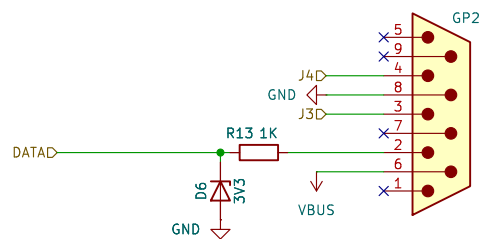
Date: 2025-03-16

**Rev: 1.03**

KiCad E.D.A. 9.0.0

Id: 7/15

The gamepad uses standard DB9 male socket.



<https://github.com/xtremespb/frank>

**Mikhail Matveev**

Sheet: /Gamepad 2/

File: gamepad.kicad\_sch

**Title: FRANK M2**

Size: A4

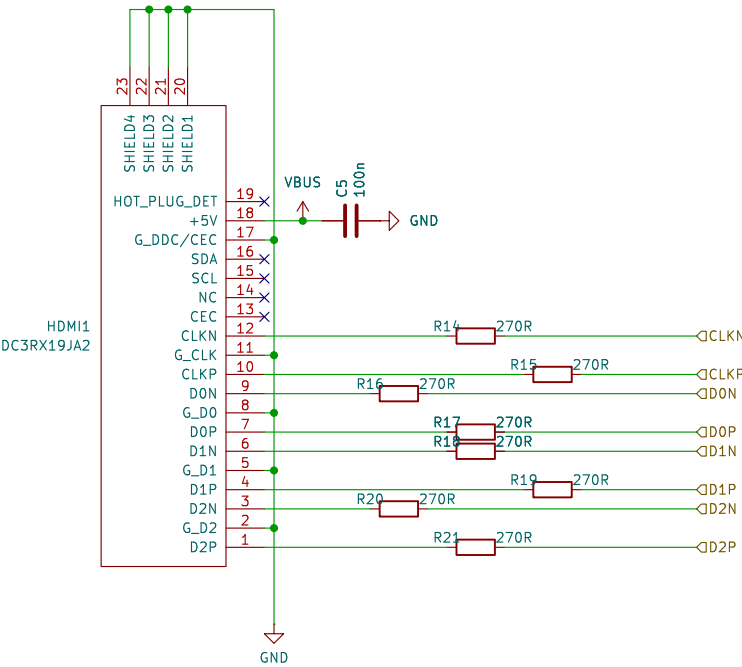
Date: 2025-03-16

**Rev: 1.03**

KiCad E.D.A. 9.0.0

Id: 8/15

HDMI video output requires the resistors to be close to the HDMI socket in order to work properly.



<https://github.com/xtremespb/frank>

**Mikhail Matveev**

Sheet: /HDMI/

File: hdmi.kicad\_sch

**Title: FRANK M2**

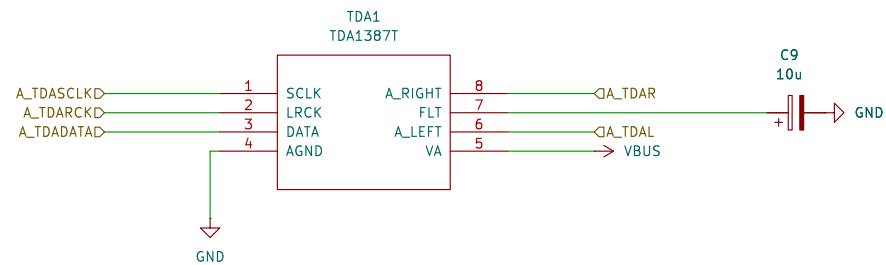
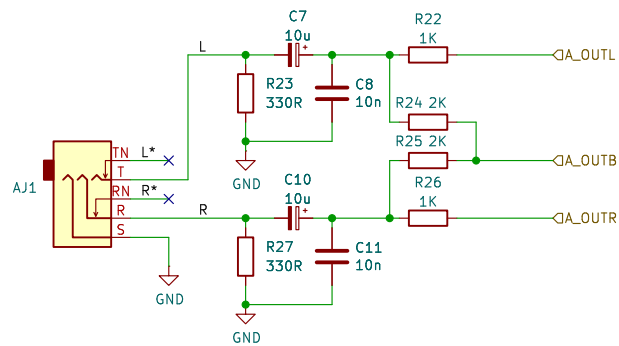
Size: A4

Date: 2025-03-16

**Rev: 1.03**

KiCad E.D.A. 9.0.0

Id: 10/15



<https://github.com/xtremespb/frank>

**Mikhail Matveev**

Sheet: /Audio Out/

File: audio.kicad\_sch

**Title: FRANK M2**

Size: A4

Date: 2025-03-16

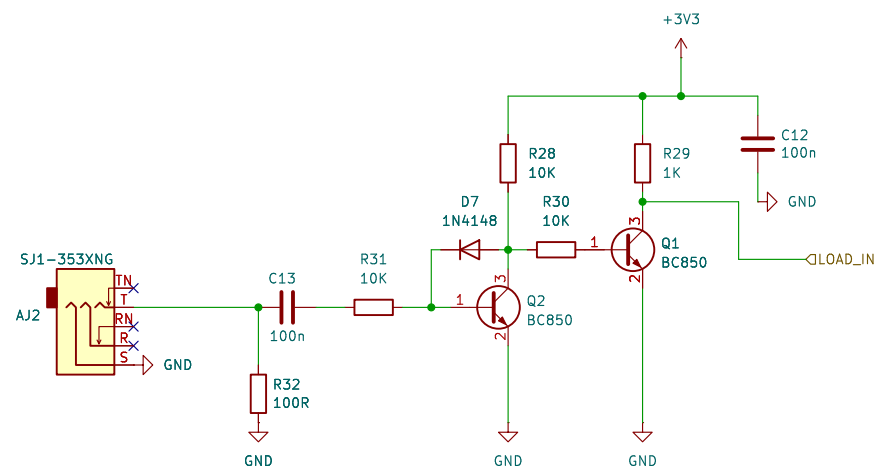
**Rev: 1.03**

KiCad E.D.A. 9.0.0

Id: 12/15



This schematics is used to load data from  
external audio source, e.g. tape.



<https://github.com/xtremespb/frank>

**Mikhail Matveev**

Sheet: /Tape In/

File: tape.kicad\_sch

**Title: FRANK M2**

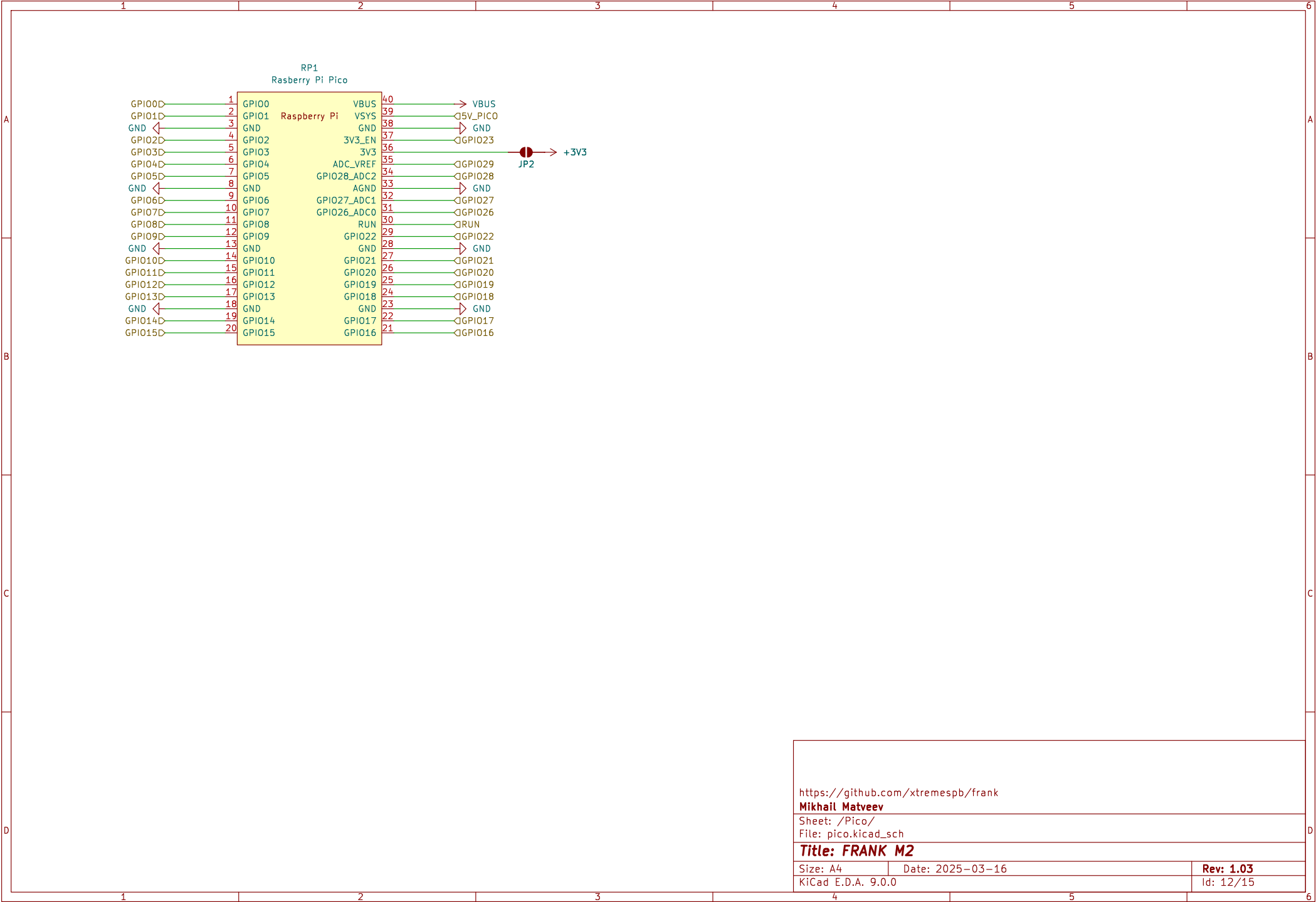
Size: A4

Date: 2025-03-16

**Rev: 1.03**

KiCad E.D.A. 9.0.0

Id: 12/15



<https://github.com/xtremespb/frank>

Mikhail Matveev

Sheet: /Pico/

File: pico.kicad\_sch

Title: FRANK M2

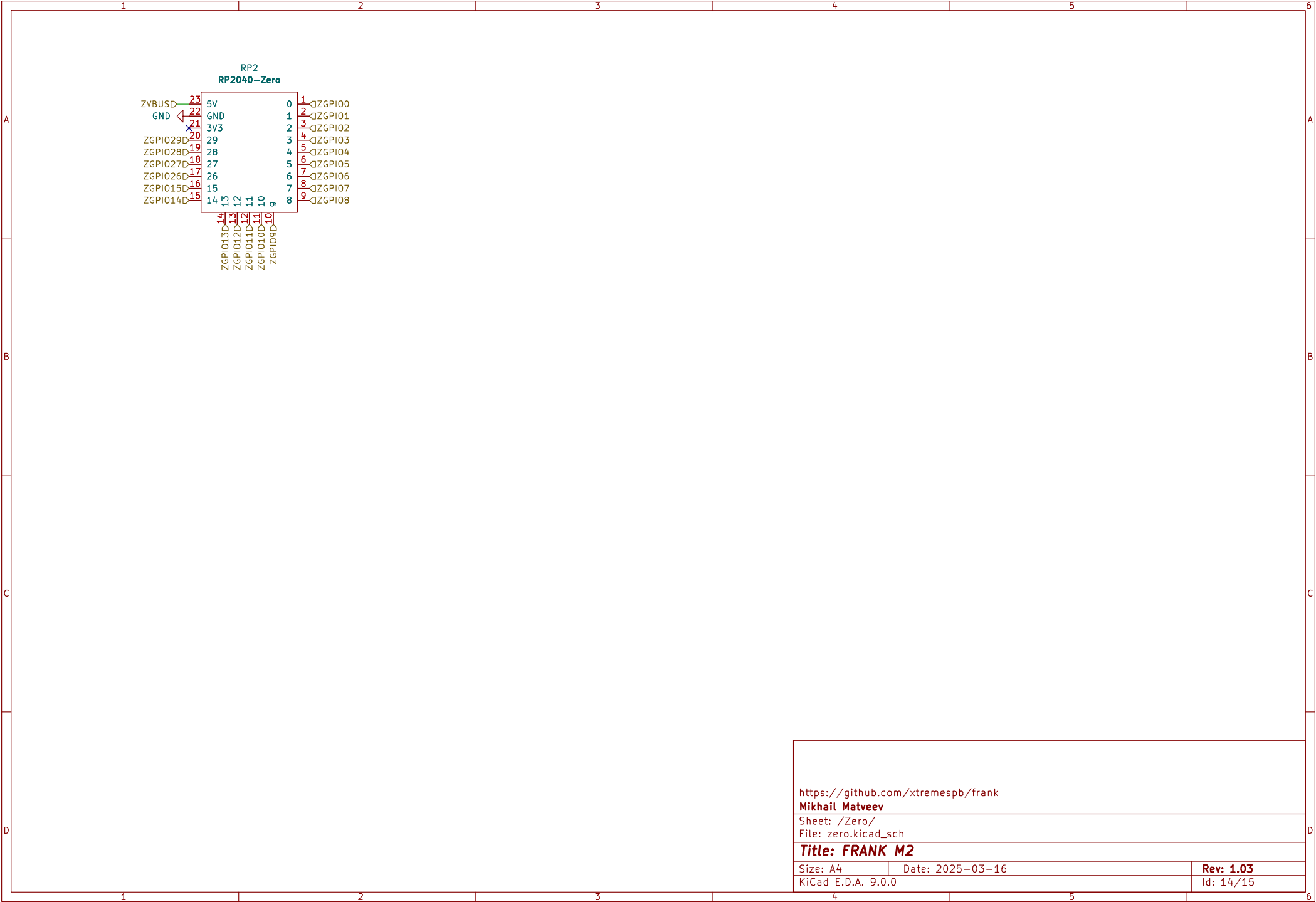
Size: A4

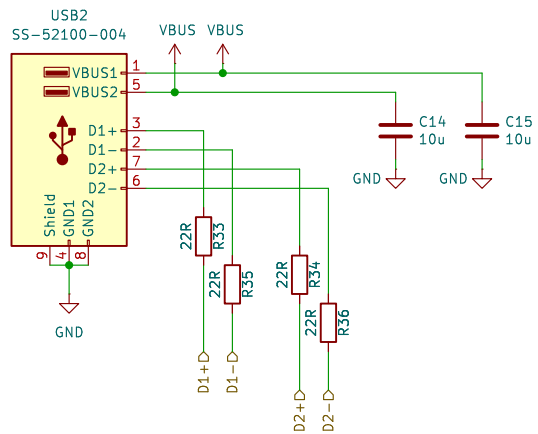
Date: 2025-03-16

Rev: 1.03

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Id: 12/15





<https://github.com/xtremespb/frank>

**Mikhail Matveev**

Sheet: /USB Stacked/

File: usbstack.kicad\_sch

**Title: FRANK M2**

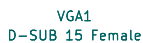
Size: A4

Date: 2025-03-16

**Rev: 1.03**

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Id: 15/15

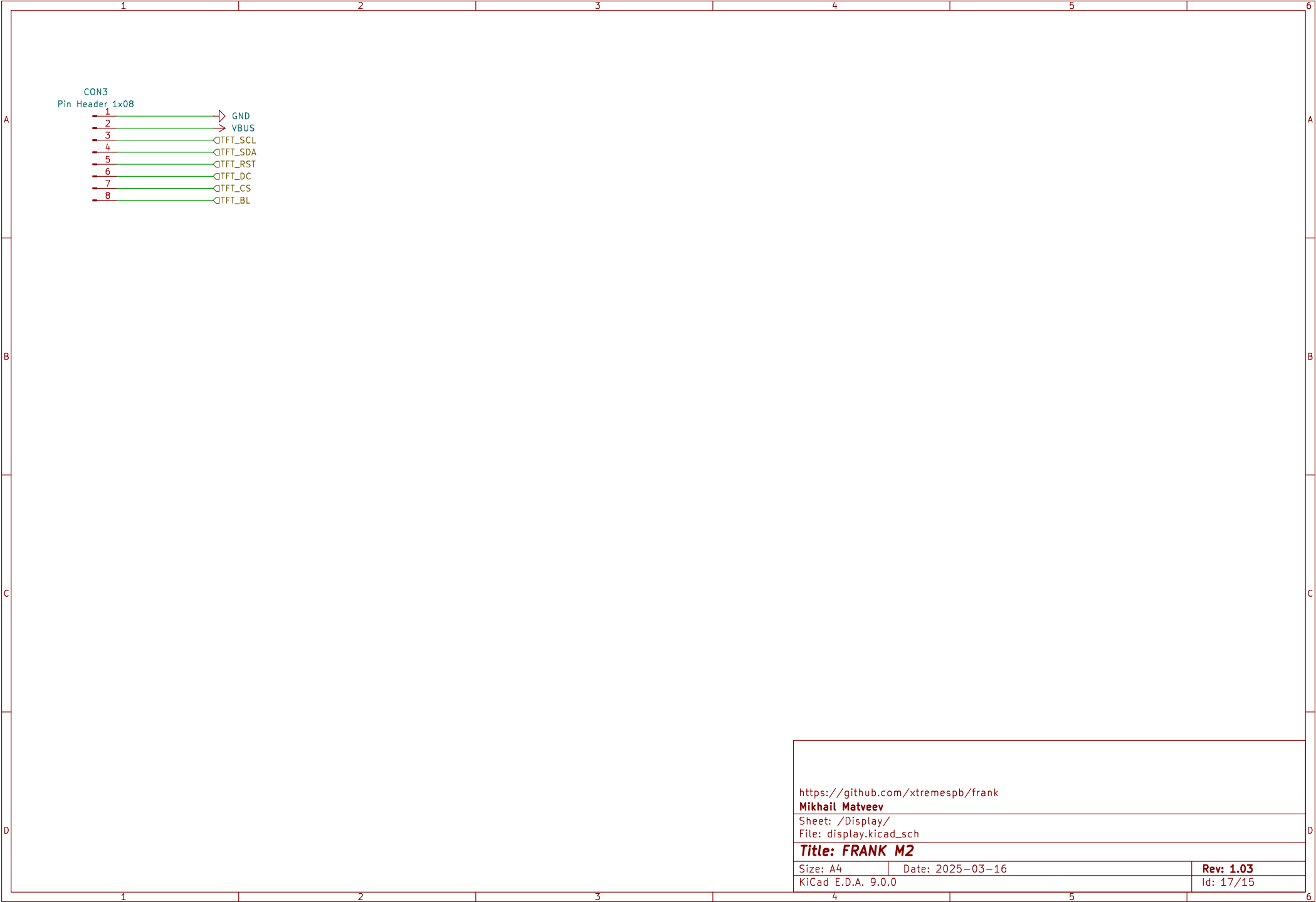


Mikhail Matveev

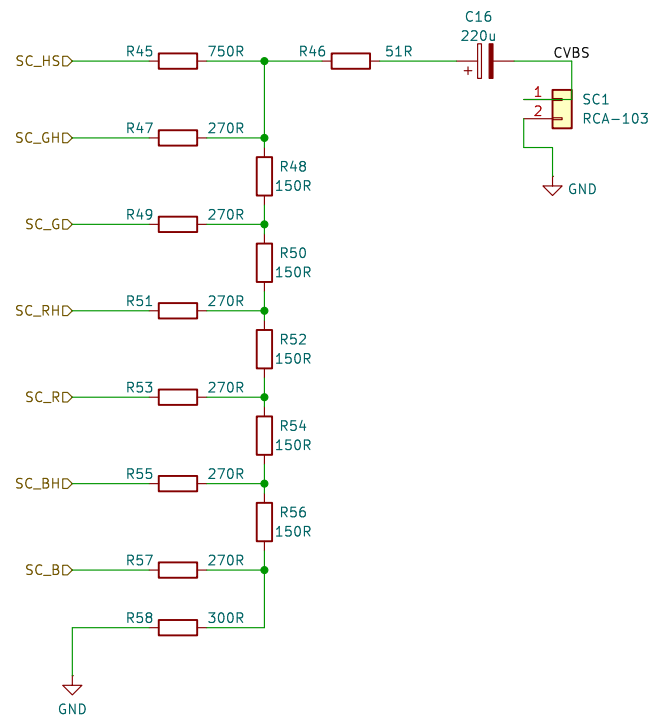
File: vga.kicad\_sch

Rev: 1.03

Id: 16/15



<a href="https://github.com/xtremespb/frank">https://github.com/xtremespb/frank</a>		
<b>Mikhail Matveev</b>		
Sheet: /Display/ File: display.kicad_sch		
<b>Title: FRANK M2</b>		
Size: A4	Date: 2025-03-16	<b>Rev: 1.03</b>
KiCad E.D.A. 9.0.0		Id: 17/15



<https://github.com/xtremespb/frank>

**Mikhail Matveev**

Sheet: /Composite/

File: composite.kicad\_sch

**Title: FRANK M2**

Size: A4

Date: 2025-03-16

**Rev: 1.03**

KiCad E.D.A. 9.0.0

Id: 18/15