

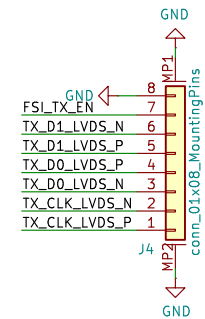
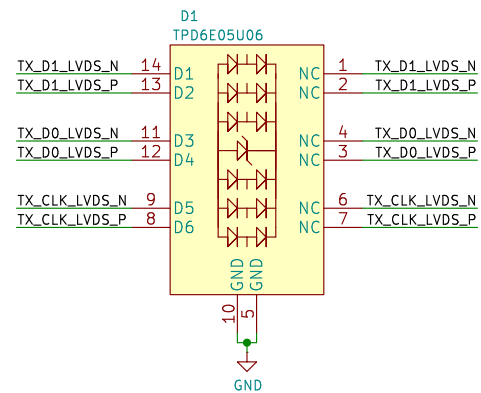
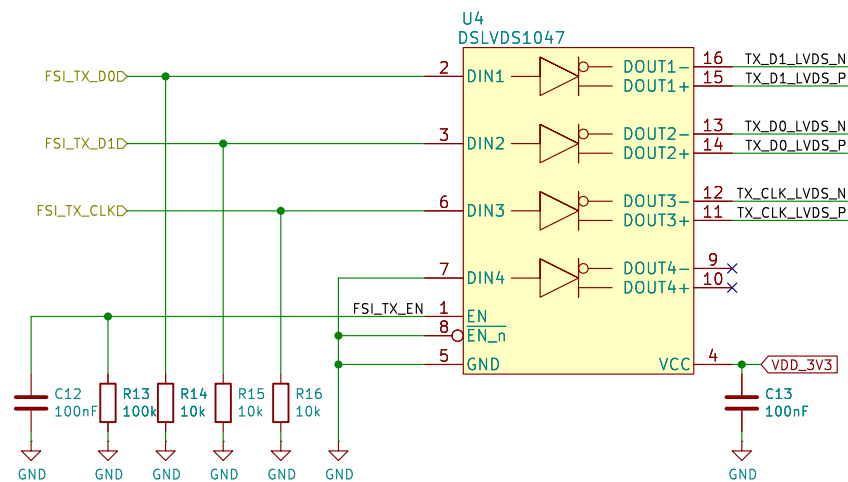
LAAS/CNRS

Sheet: /OMODRI_QuadEncod/
File: OMODRI_QuadEncod.kicad_sch

Title: Open MOr Driver Initiative (OMODRI)

Size: A4 Date: 2024-05-03
KiCad E.D.A. 8.0.2

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LAAS/CNRS

Sheet: /OMODRI_FSI_TX/
File: OMODRI_FSI_TX.kicad_sch

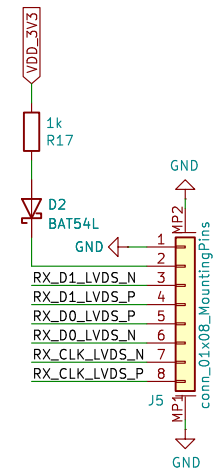
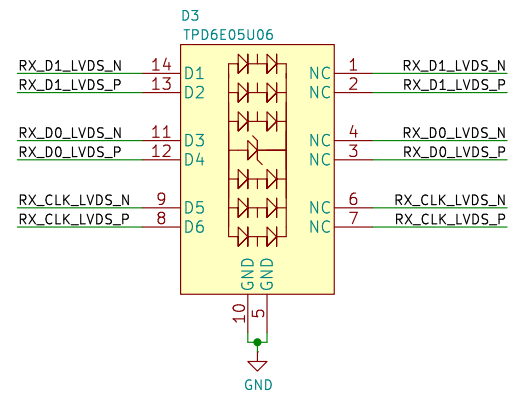
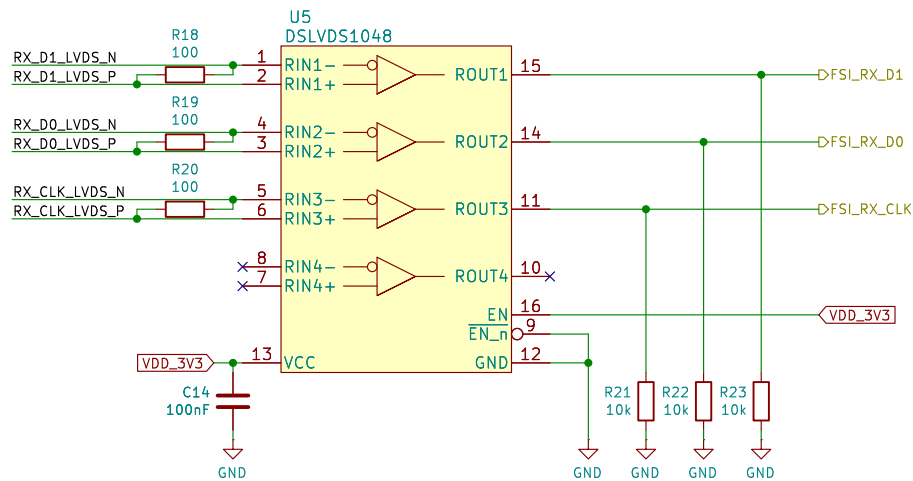
Title: Open M^otor Driver Initiative (OMODRI)

Size: A4 Date: 2024-05-03

KiCad E.D.A. 8.0.2

Rev: 3.1

Id: 3/22



LAAS/CNRS

Sheet: /OMODRI_FSI_RX/
File: OMODRI_FSI_RX.kicad_sch

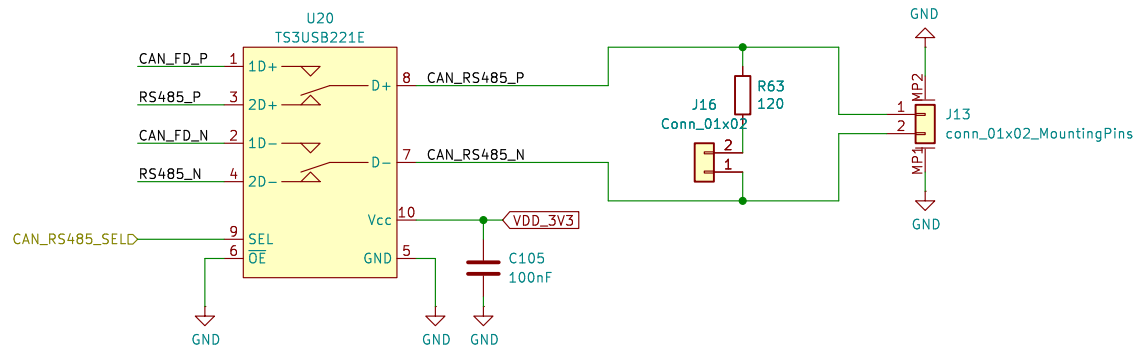
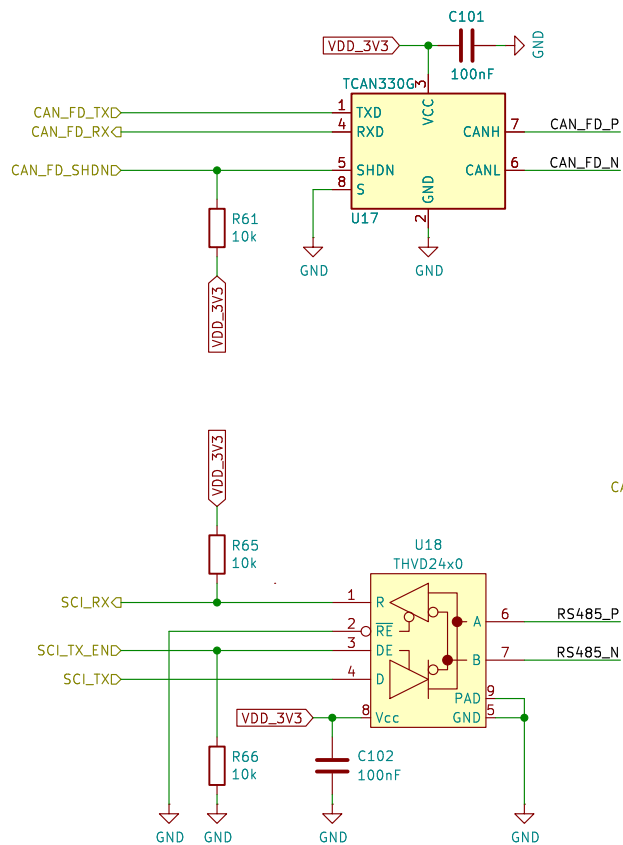
Title: Open MOror DRiver Initiative (OMODRI)

Size: A4 Date: 2024-05-03

KiCad E.D.A. 8.0.2

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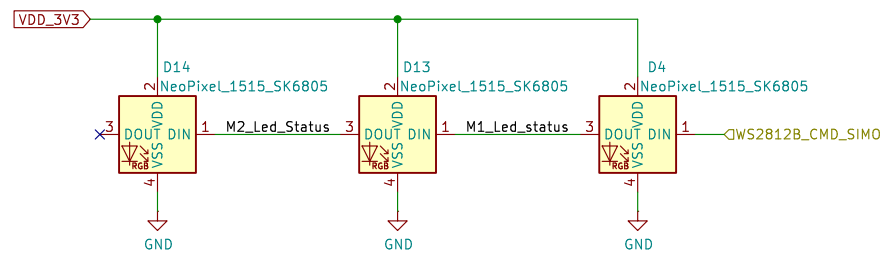
LAAS/CNRS

Sheet: /OMODRI_CAN_RS485/
File: OMODRI_CAN_RS845.kicad_sch

Title: Open M^otor Driver Initiative (OMODRI)

Size: A4 Date: 2024-05-03
KiCad E.D.A. 8.0.2

Rev: 3.1
Id: 5/22



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Sheet: /OMODRI_LED_dbg/
File: OMODRI_LED_dbg.kicad_sch

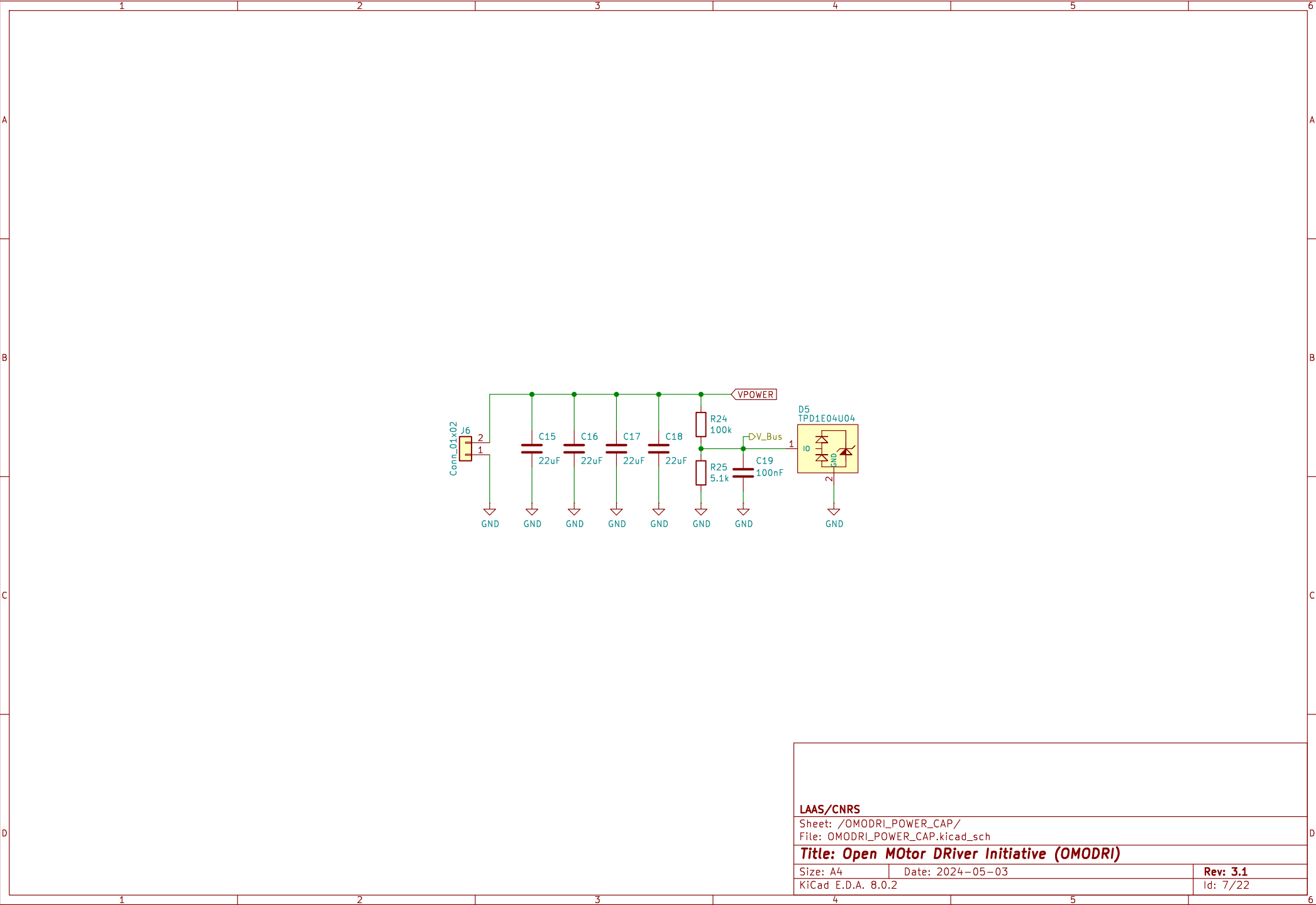
Title: Open M_Otor D_River Initiative (OMODRI)

Size: A4 Date: 2024-05-03

KiCad E.D.A. 8.0.2

Rev: 3.1

Id: 6/22



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Sheet: /OMODRI_POWER_CAP/
File: OMODRI_POWER_CAP.kicad_sch

Title: Open M^otor D^river Initiative (OMODRI)

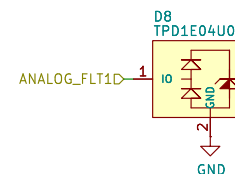
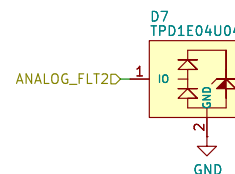
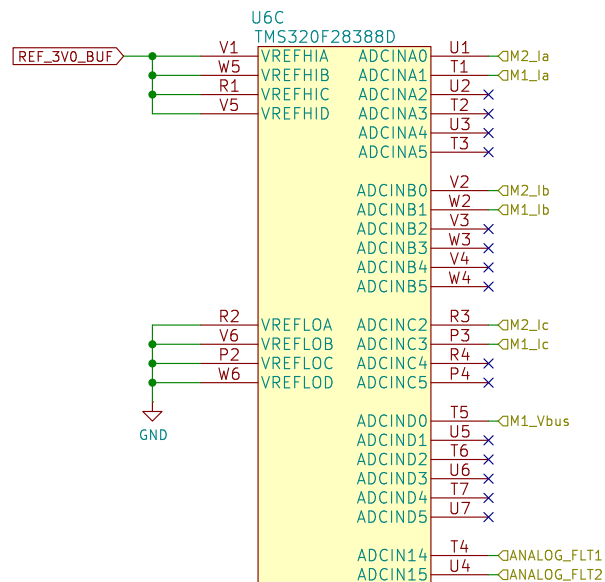
Size: A4 Date: 2024-05-03

KiCad E.D.A. 8.0.2

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Id: 8/22



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Sheet: /OMODRI_GPIO/OMODRI_ANALOG/
File: OMODRI_ANALOG.kicad_sch

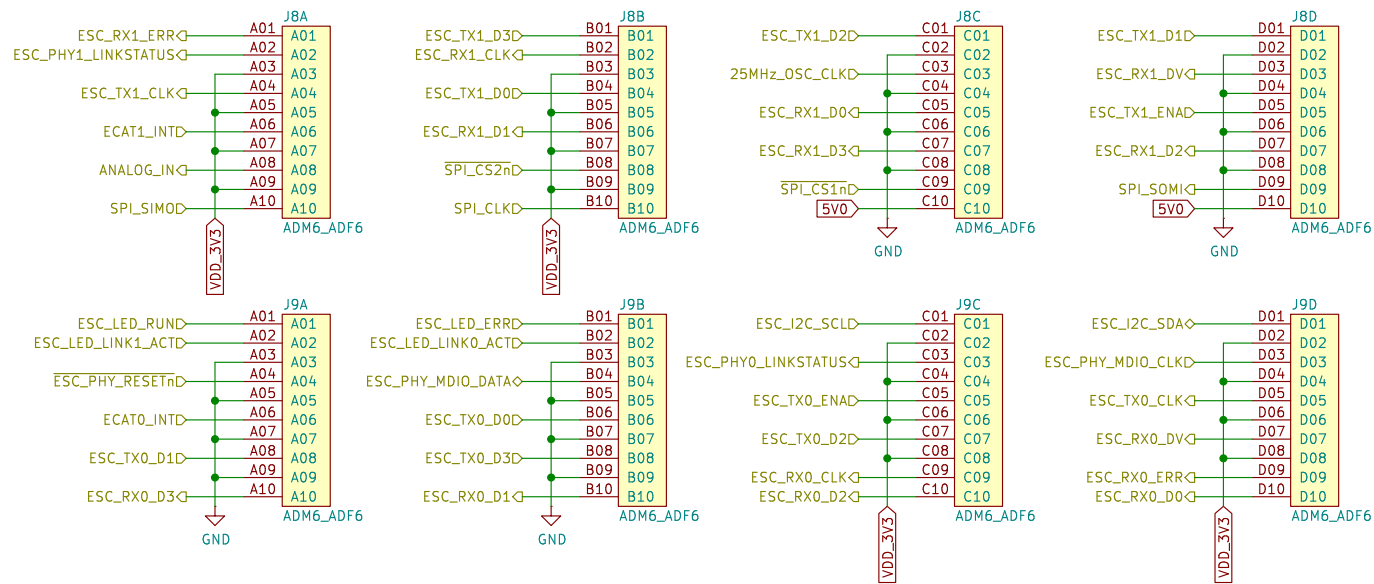
Title: Open MOror DRiver Initiative (OMODRI)

Size: A4 Date: 2024-05-03

KiCad E.D.A. 8.0.2

Rev: 3.1

Id: 10/22



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Sheet: /OMODRI_GPIO/OMODRI_ETHERCAT_CONNECT/
File: OMODRI_ETHERCAT_CONNECT.kicad_sch

Title: Open Motor Driver Initiative (OMODRI)

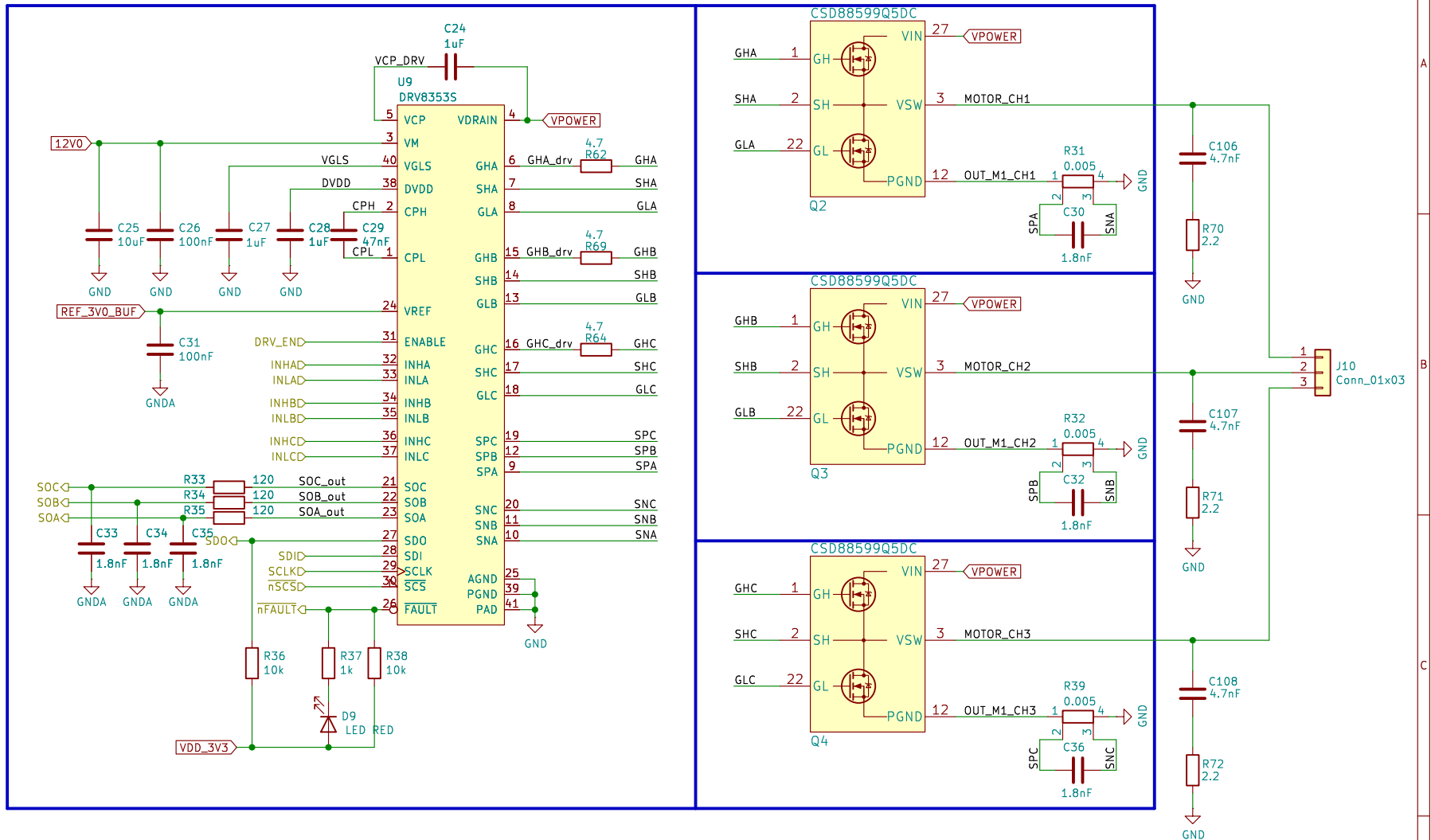
Size: A4

Date: 2024-05-03

Rev: 3.1

KiCad E.D.A. 8.0.2

Id: 11/22



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Sheet: /OMODRI_driver_M1/

File: OMODRI_driver_M1.kicad_sch

Title: Open Motor Driver Initiative (OMODRI)

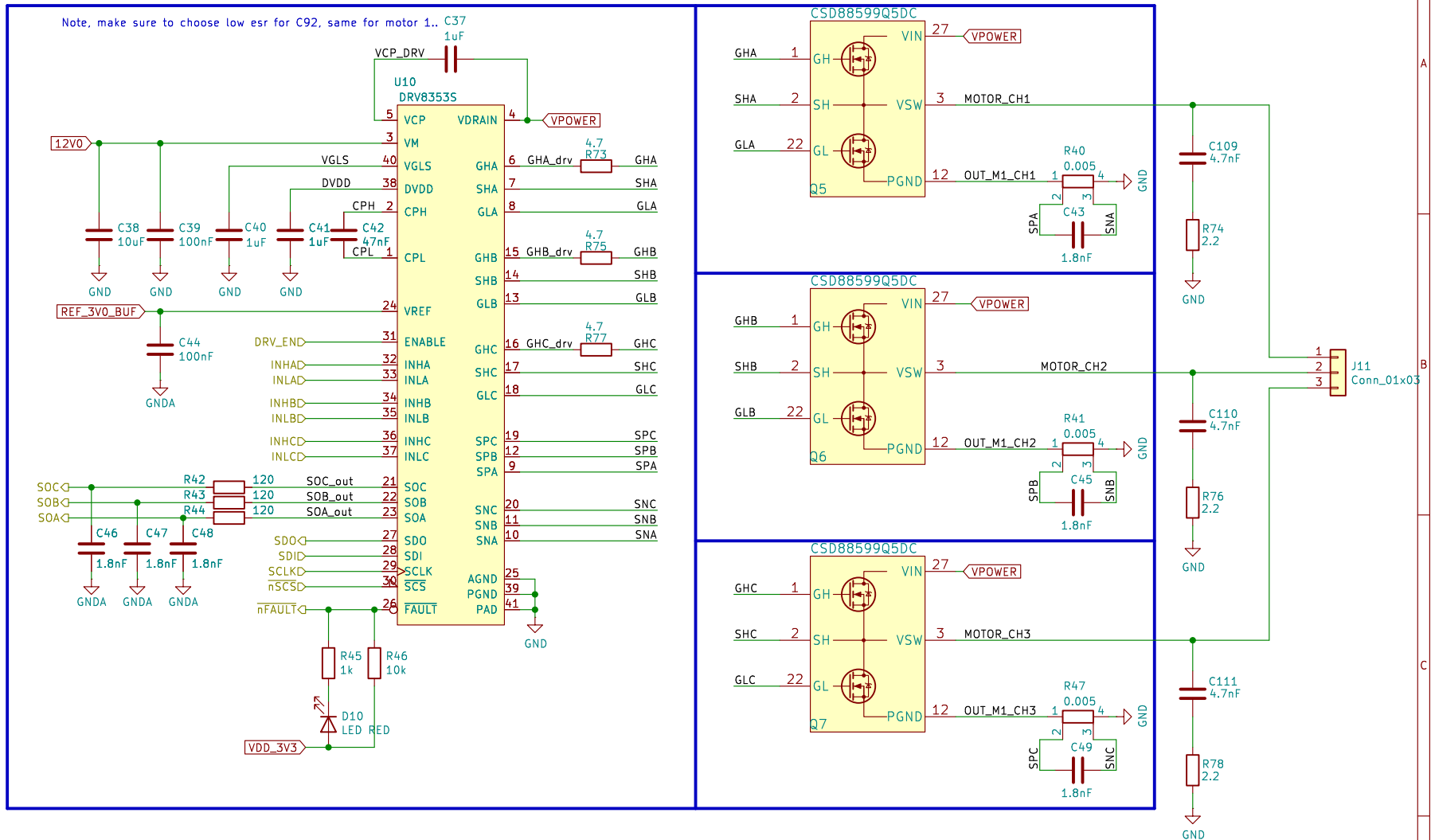
Size: A4

Date: 2024-05-03

Rev: 3.1

KiCad E.D.A. 8.0.2

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Sheet: /OMODRI_driver_M2/

File: OMODRI_driver_M2.kicad_sch

Title: Open Motor Driver Initiative (OMODRI)

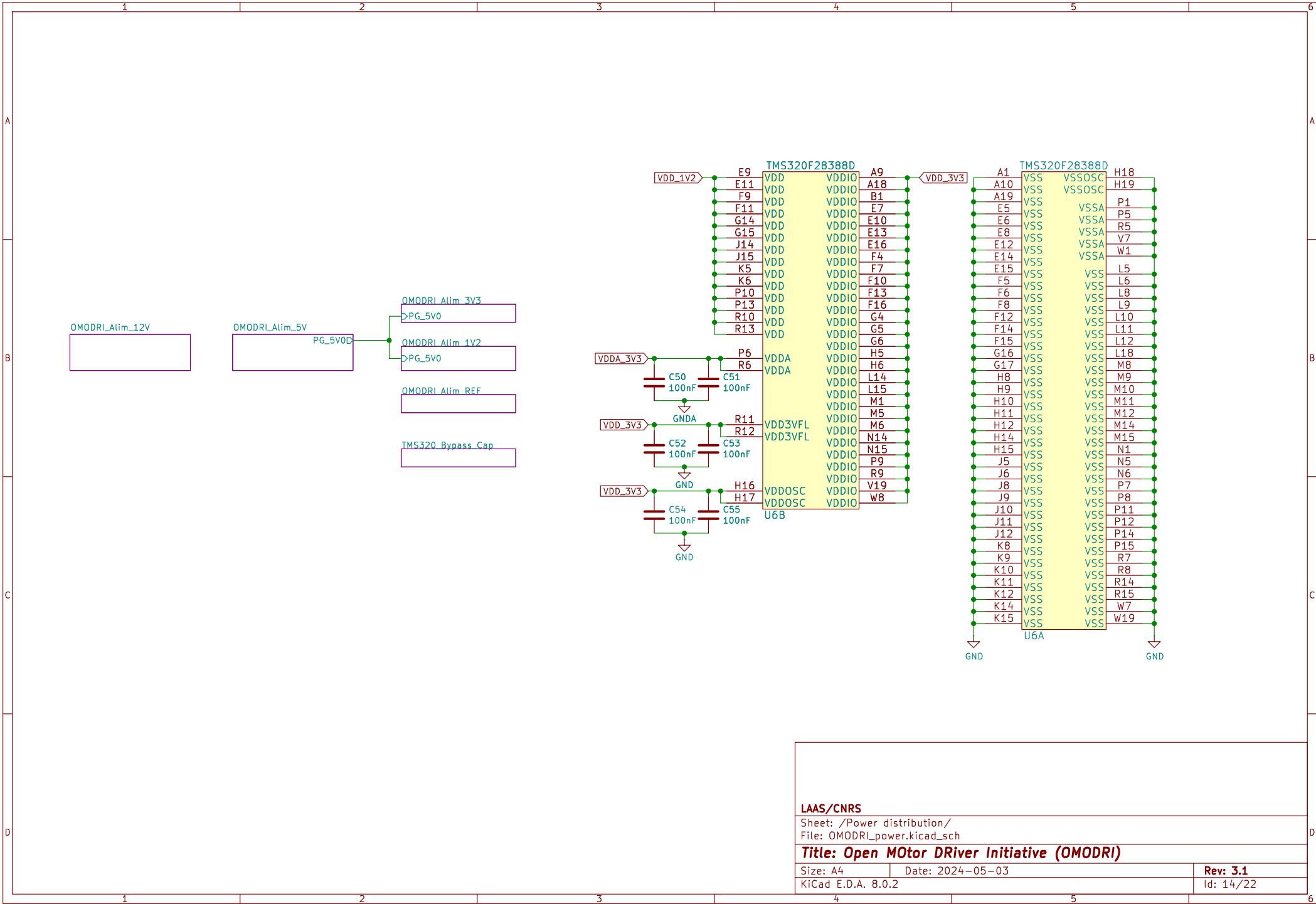
Size: A4

Date: 2024-05-03

Rev: 3.1

KiCad E.D.A. 8.0.2

Id: 13/22



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Sheet: /Power distribution/
File: OMODRI_power.kicad_sch

Title: Open Mtor DRiver Initiative (OMODRI)

Size: A4

Date: 2024-05-03

Rev: 3.1

KiCad E.D.A. 8.0.2

Id: 14/22

TODO note: change references link and MPN for all resistor and capa

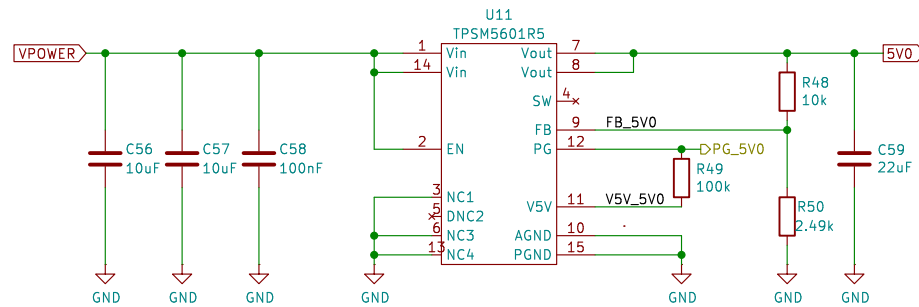
TODO note:

U11.4 : SW – Switch node. Do not place any external component on this pin or connect this pin to any signal.
U11.5 : DNC – Do not connect. Do not connect this pin to ground, to another pin, or to any other voltage. This pin is connected to the internal bootstrap capacitor. This pin must be soldered to an isolated pad.
U11.3, U11.6, U11.13 : NC – these pins to the PGND plane can help enhance shielding and thermal performance.
U11.12 : PGOOD – A 10–kohm to 100–kohm pullup resistor is required and can be tied to the V5V pin or other DC voltage less than 18V.

R48 = 10kohm (recommended)
R50 = 2.49kohm ($R50 = R48 / (5V - 1)$)

$C_{in} > 9.4\mu F$
 $C56 + C57 + C58 = (10\mu F + 10\mu F + 100nF)$ rated @ 75V.

$C_{out} > 15\mu F$ (according figure 7–2 in datasheet SLVSG72 / TPSM560R6H)
C59 = 22uF/25V



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Sheet: /Power distribution/OMODRI_Alim_5V/
File: OMODRI_Alim_5V.kicad_sch

Title: Open Motor Driver Initiative (OMODRI)

Size: A4

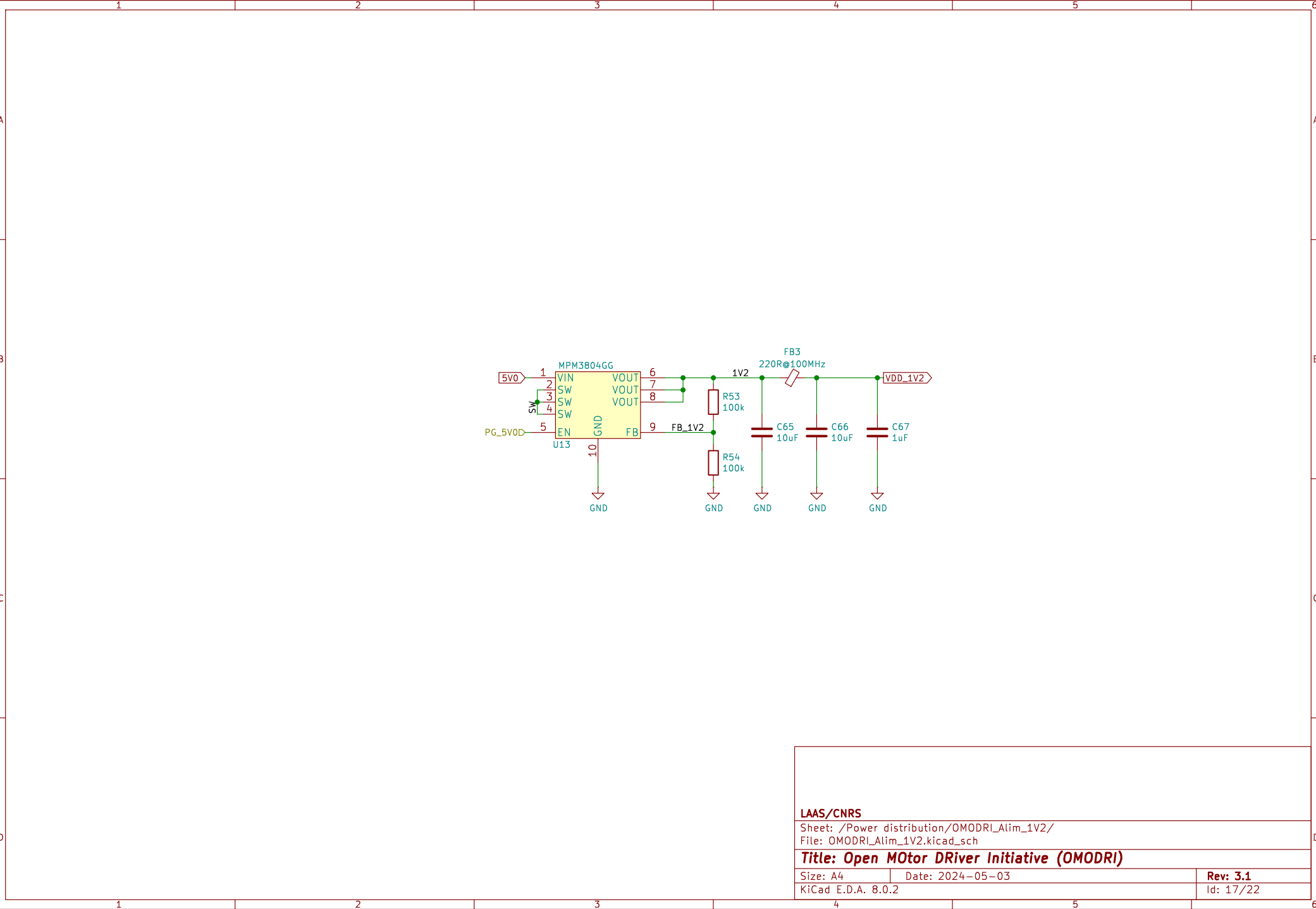
Date: 2024-05-03

Rev: 3.1

KiCad E.D.A. 8.0.2

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Sheet: /Power distribution/OMODRI_Alim_1V2/
File: OMODRI_Alim_1V2.kicad_sch

Title: Open Motor Driver Initiative (OMODRI)

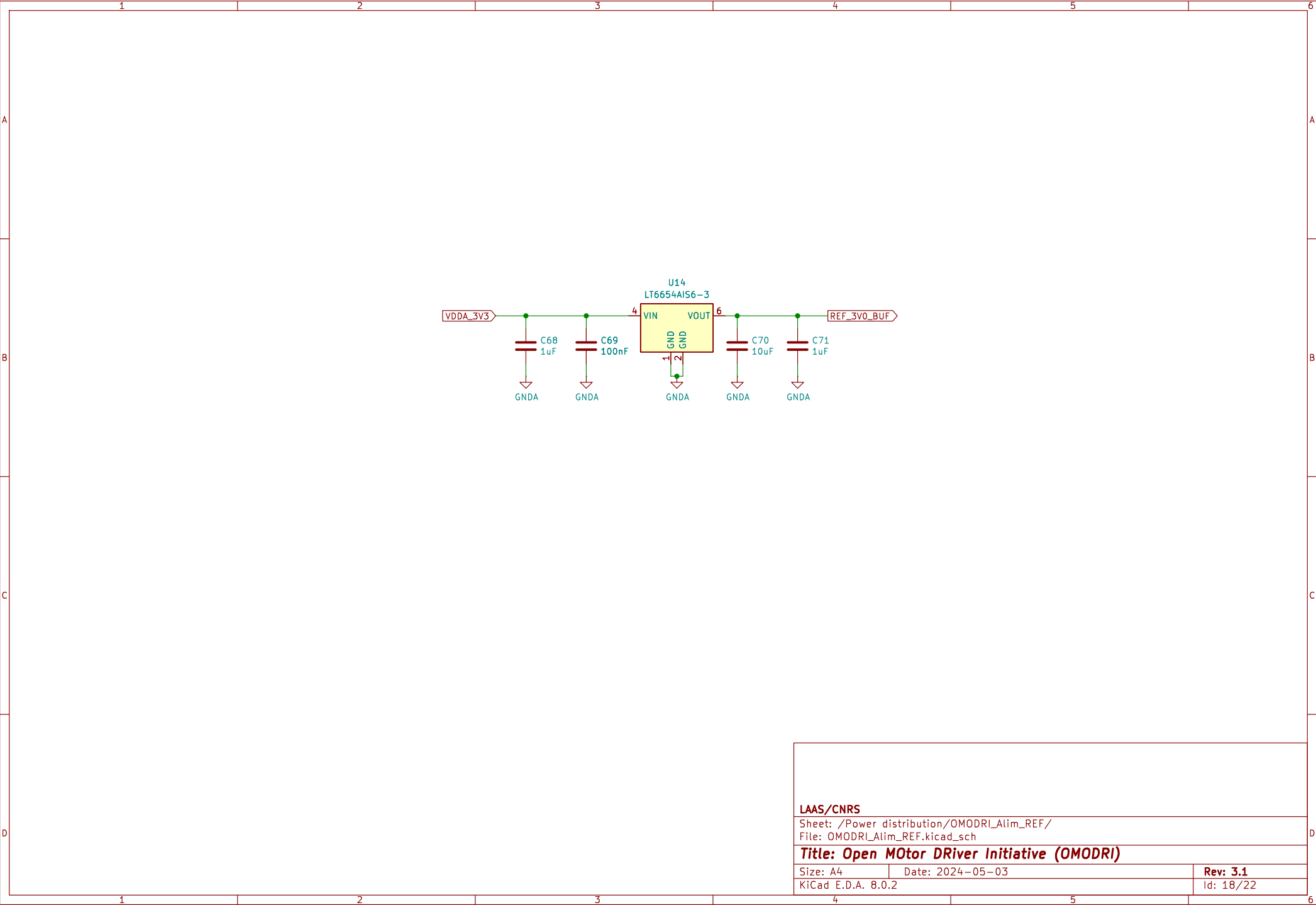
Size: A4

Date: 2024-05-03

Rev: 3.1

KiCad E.D.A. 8.0.2

Id: 17/22



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Sheet: /Power distribution/OMODRI_Alim_REF/
File: OMODRI_Alim_REF.kicad_sch

Title: Open M_Otor Driver Initiative (OMODRI)

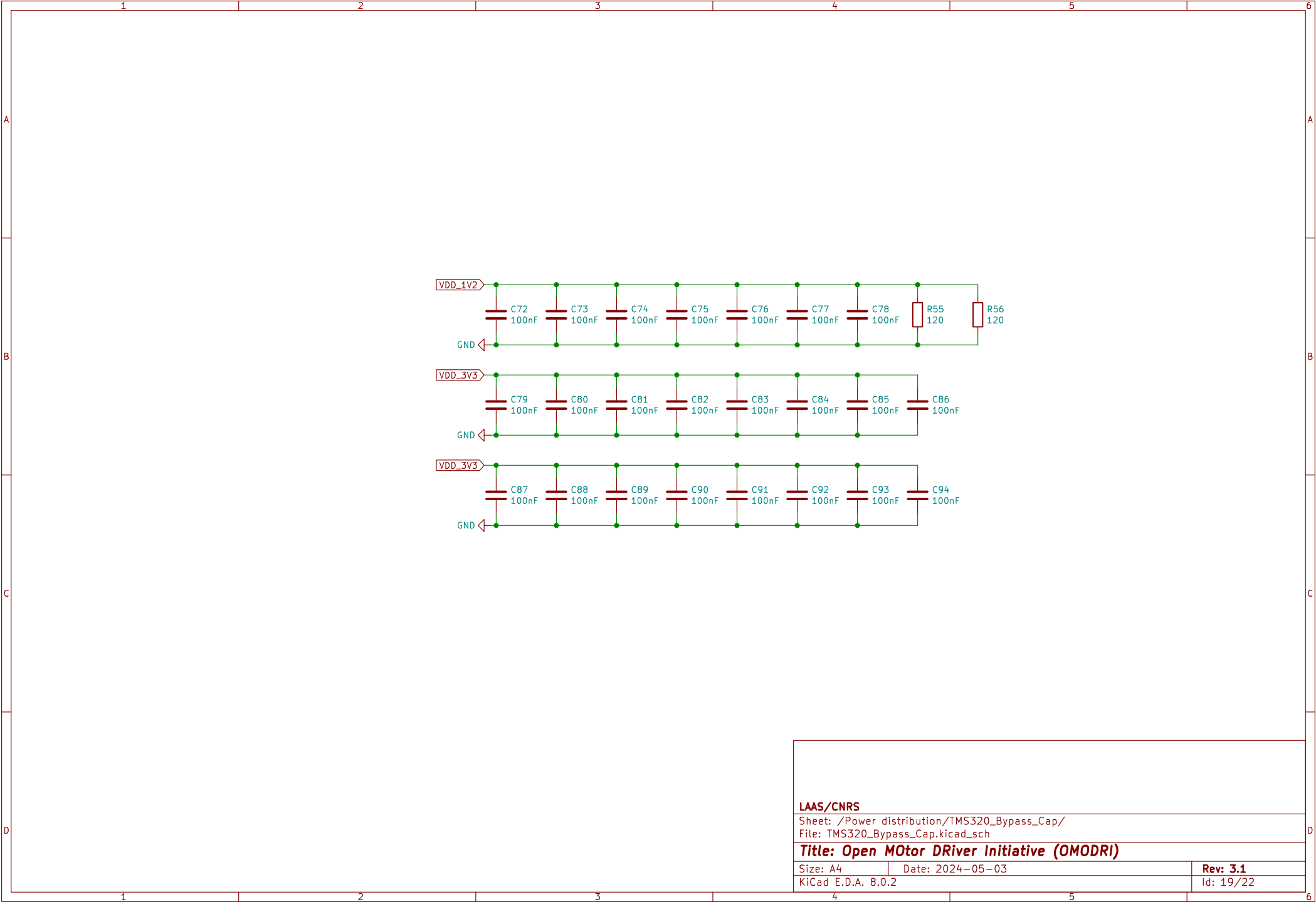
Size: A4

Date: 2024-05-03

Rev: 3.1

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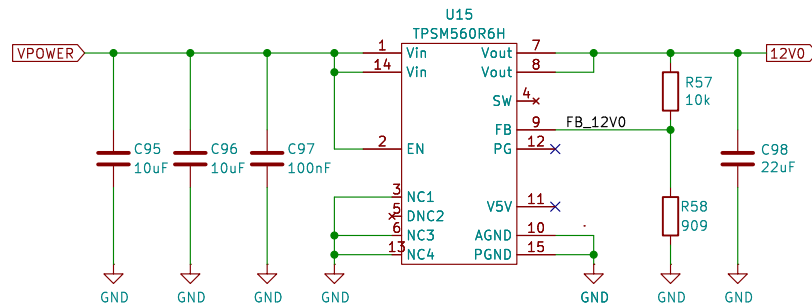
TODO note:

U15.4 : SW – Switch node. Do not place any external component on this pin or connect this pin to any signal.
U15.5 : DNC – Do not connect. Do not connect this pin to ground, to another pin, or to any other voltage. This pin is connected to the internal bootstrap capacitor. This pin must be soldered to an isolated pad.
U15.3, U15.6, U15.13 : NC – these pins to the PGND plane can help enhance shielding and thermal performance.
U15.12 : PG00D – If not used, this pin can be left open or connected to PGND.

R57 = 10kohm (recommended)
R58 = 909ohm ($R58 = R57 / (12V - 1)$)

Cin > 9,4uF
C95 + C96 + C97 = (10uF + 10uF + 100nF) rated @ 75V.

Cout > 15uF (according figure 7–2 in datasheet SLVSG72 / TPSM560R6H)
C98 = 22uF/25V



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Sheet: /Power distribution/OMODRI_Alim_12V/
File: OMODRI_Alim_12V.kicad_sch

Title: Open MOror DRiver Initiative (OMODRI)

Size: A4

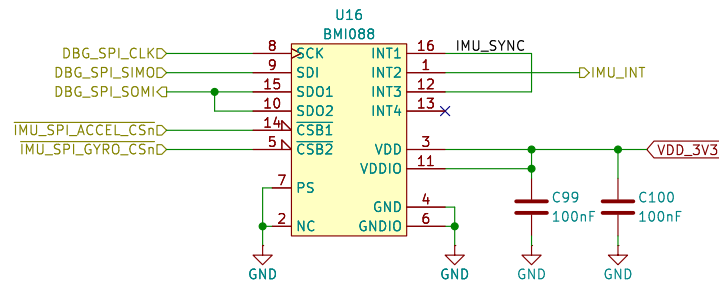
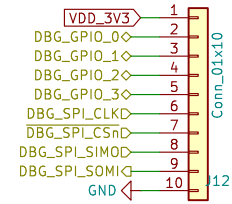
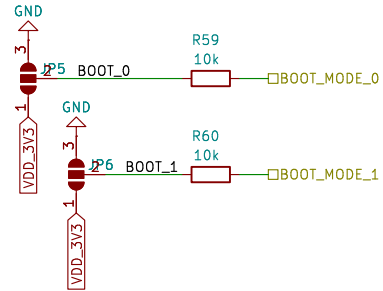
Date: 2024-05-03

Rev: 3.1

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JP2 JP1 BOOT Mode
0 0 Parallel IO
1 1 SCI / Wait Boot
1 0 CAN
1 1 Flash / USB



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Sheet: /OMODRI_IMU_DBG/
File: OMODRI_IMU_DBG.kicad_sch

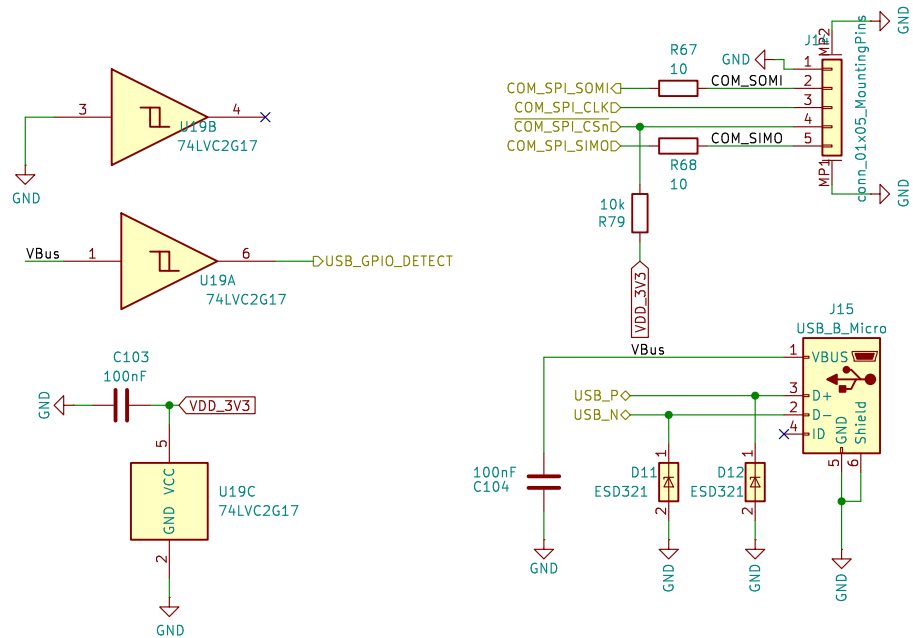
Title: Open MOror DRiver Initiative (OMODRI)

Size: A4 Date: 2024-05-03

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Sheet: /OMODRI_COM_SPI_USB/
File: OMODRI_COM_SPI_USB.kicad_sch

Title: Open MOror DRiver Initiative (OMODRI)

Size: A4

Date: 2024-05-03

Rev: 3.1

KiCad E.D.A. 8.0.2

Id: 22/22