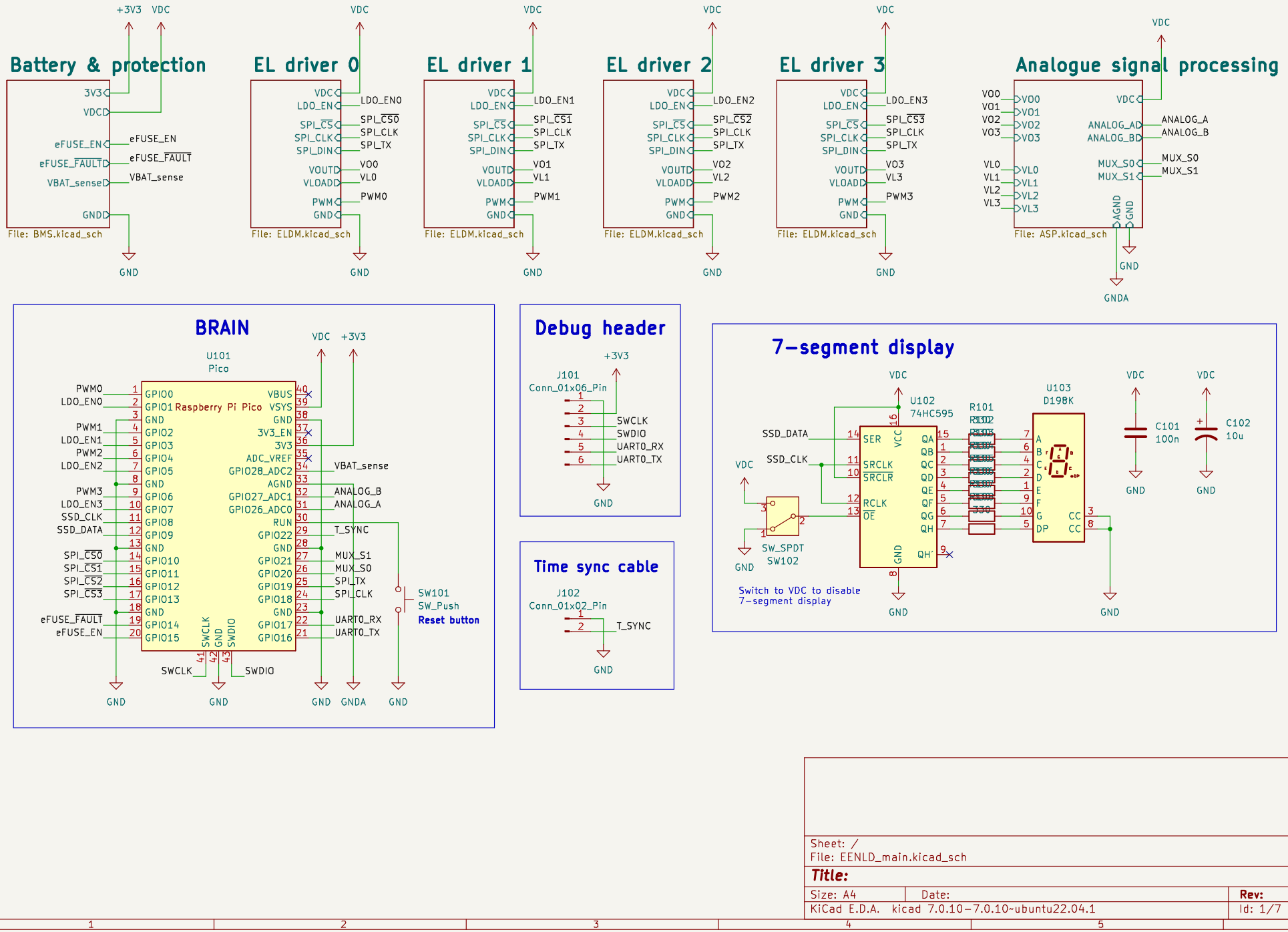
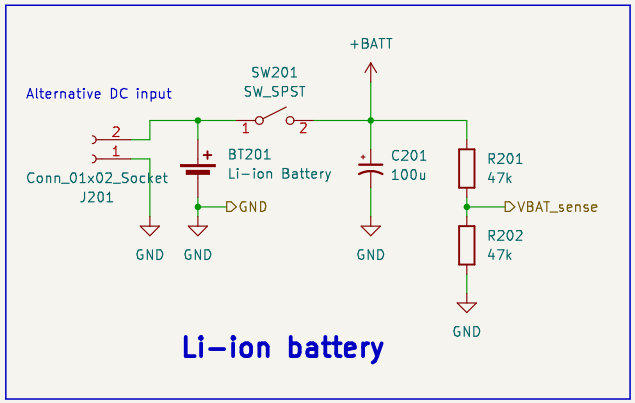
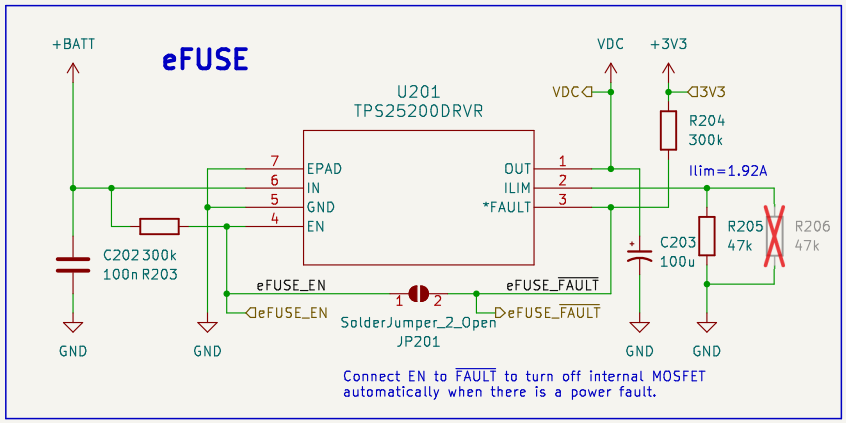
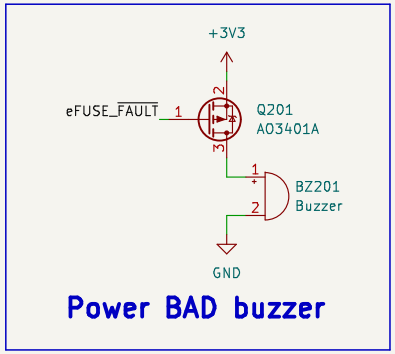
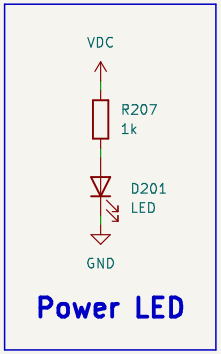
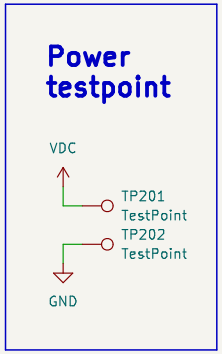

Battery & protection
3V3
VDC
eFUSE_EN
eFUSE_FAULT
VBAT_sense
GND
File: BMS.kicad_sch
EL driver 0
LDO_EN0
SPI_CS0
SPI_CLK
SPI_TX
SPI_DIN
VOUT
VLOAD
VO0
VL0
PWM
PWM0
File: ELDM.kicad_sch
EL driver 1
LDO_EN1
SPI_CS1
VO1
VL1
PWM1
EL driver 2
LDO_EN2
SPI_CS2
VO2
VL2
PWM2
EL driver 3
LDO_EN3
SPI_CS3
VO3
VL3
PWM3
Analogue signal processing
ANALOG_A
ANALOG_B
MUX_S0
MUX_S1
AGND
GNDA
File: ASP.kicad_sch
BRAIN
U101
Pico
Raspberry Pi Pico
GPIO0
GPIO1
GPIO2
GPIO3
GPIO4
GPIO5
GPIO6
GPIO7
GPIO8
GPIO9
GPIO10
GPIO11
GPIO12
GPIO13
GPIO14
GPIO15
VBUS
VSYS
3V3_EN
3V3
ADC_VREF
GPIO28_ADC2
AGND
GPIO27_ADC1
GPIO26_ADC0
RUN
GPIO22
GPIO21
GPIO20
GPIO19
GPIO18
GPIO17
GPIO16
SWCLK
SWDIO
SW101
SW_Push
Reset button
Debug header
J101
Conn_01x06_Pin
UART0_RX
UART0_TX
Time sync cable
J102
Conn_01x02_Pin
7-segment display
U102
74HC595
SER
SRCLK
SRCLR
RCLK
OE
QA
QB
QC
QD
QE
QF
QG
QH
QH'
U103
D198K
R101
330
C101
100n
C102
10u
SSD_DATA
SSD_CLK
SW_SPDT
SW102
Switch to VDC to disable
7-segment display
Sheet: /
File: EENLD_main.kicad_sch
Title:
Size: A4
Date:
Rev:
KiCad E.D.A. kicad 7.0.10-7.0.10~ubuntu22.04.1
Id: 1/7











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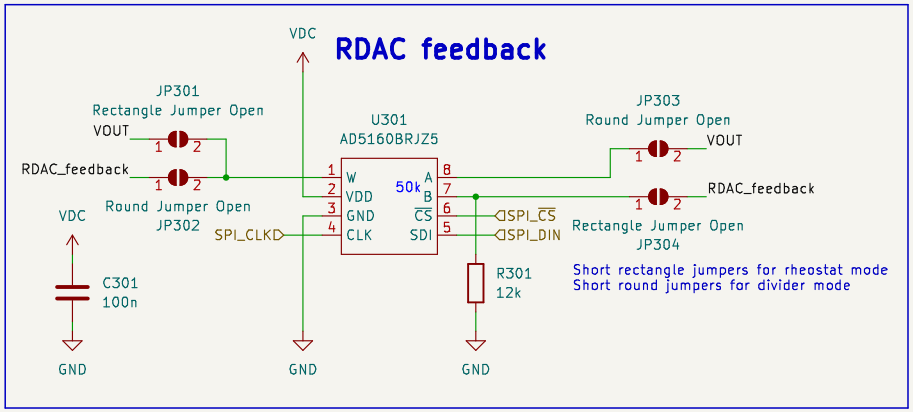
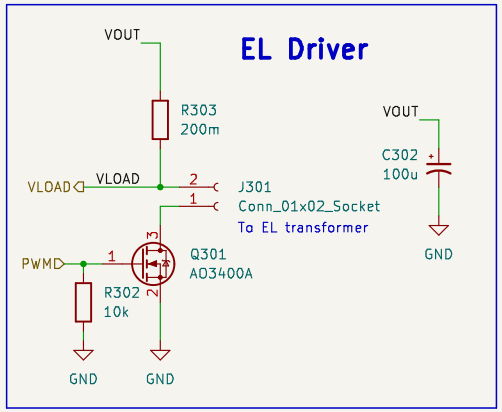
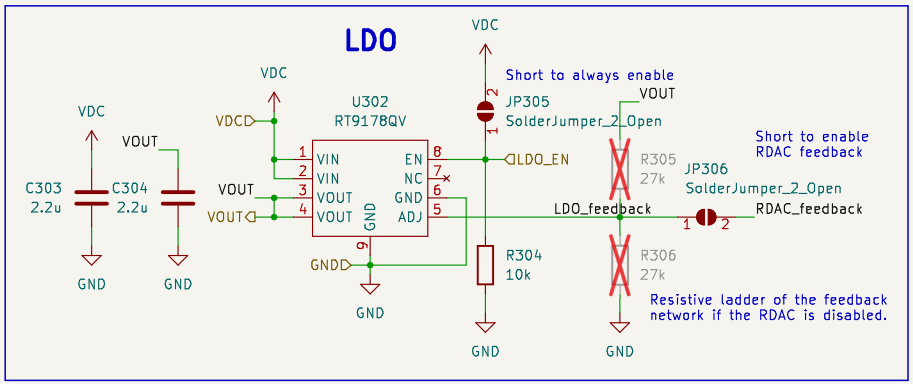
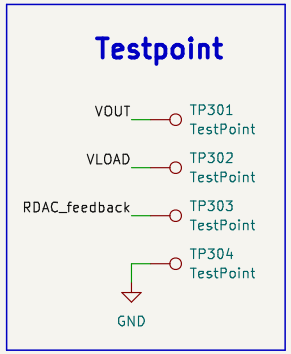
KiCad E.D.A. kicad 7.0.10-7.0.10~ubuntu22.04.1		Id: 2/7





Divider mode calculation.
https://www.geogebra.org/calculator/vzmcez3b





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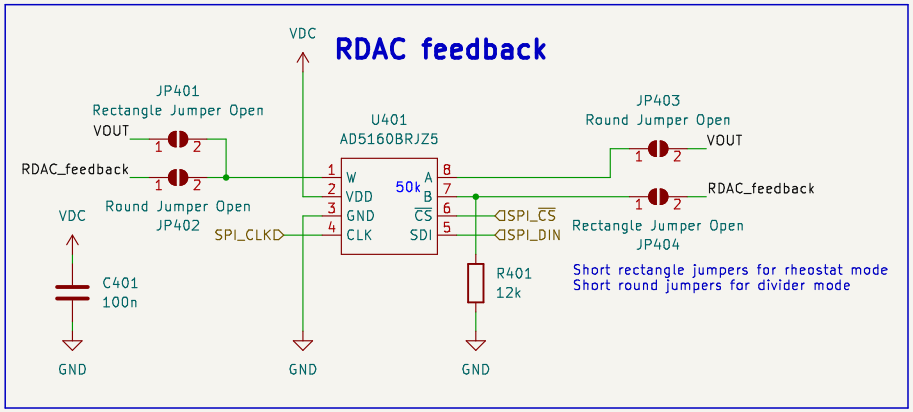
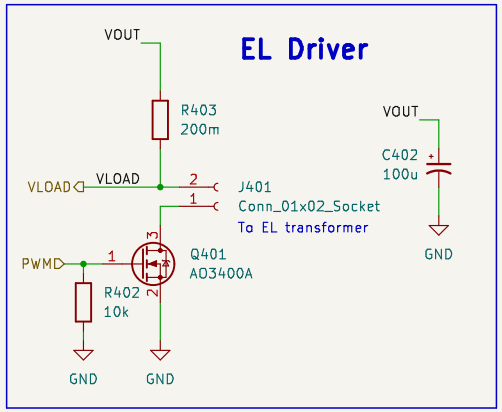
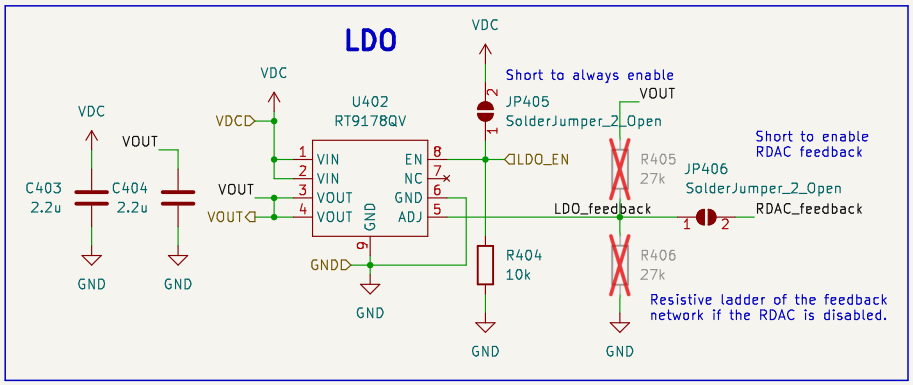
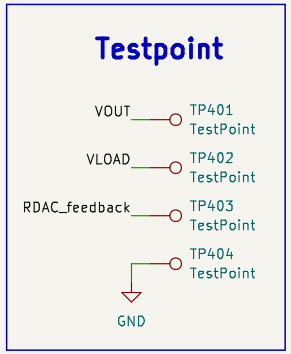
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 7.0.10-7.0.10~ubuntu22.04.1		Id: 3/7





Divider mode calculation.
https://www.geogebra.org/calculator/vzmcez3b





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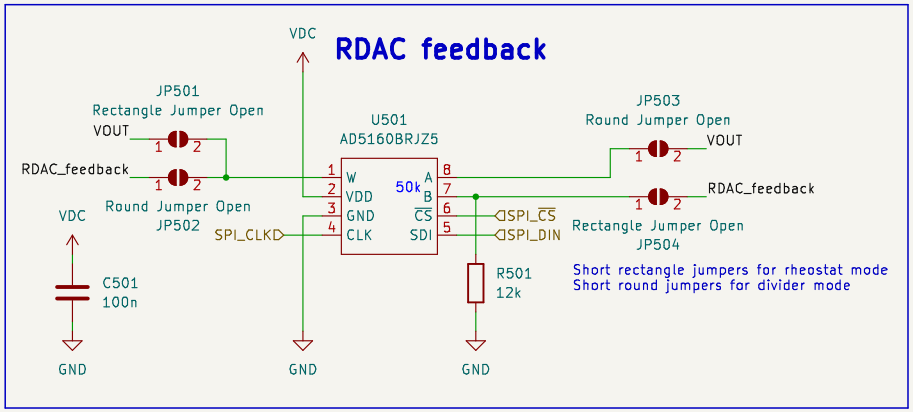
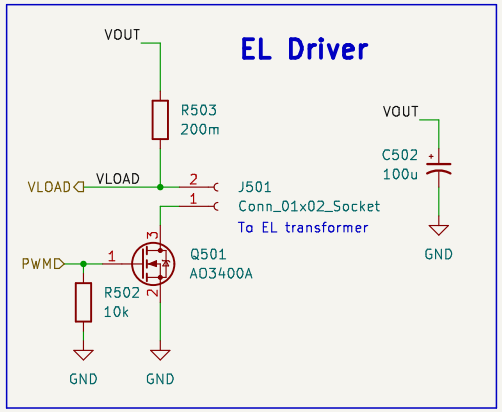
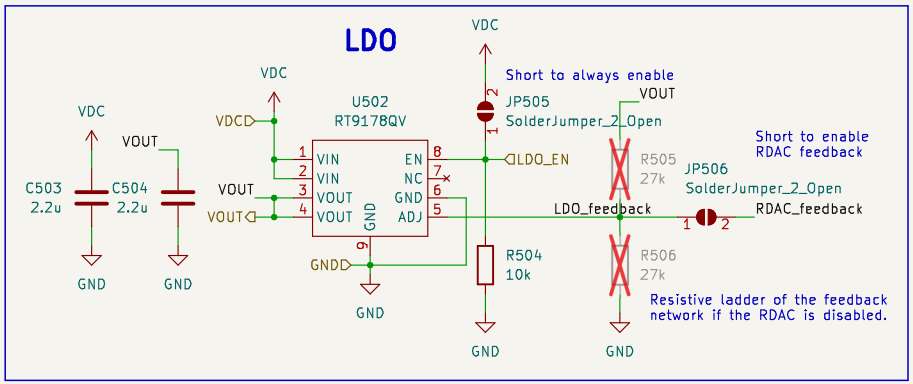
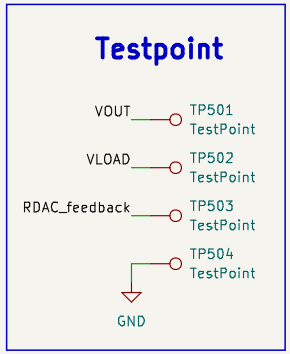
KiCad E.D.A. kicad 7.0.10-7.0.10~ubuntu22.04.1		Id: 4/7





Divider mode calculation.
https://www.geogebra.org/calculator/vzmcez3b





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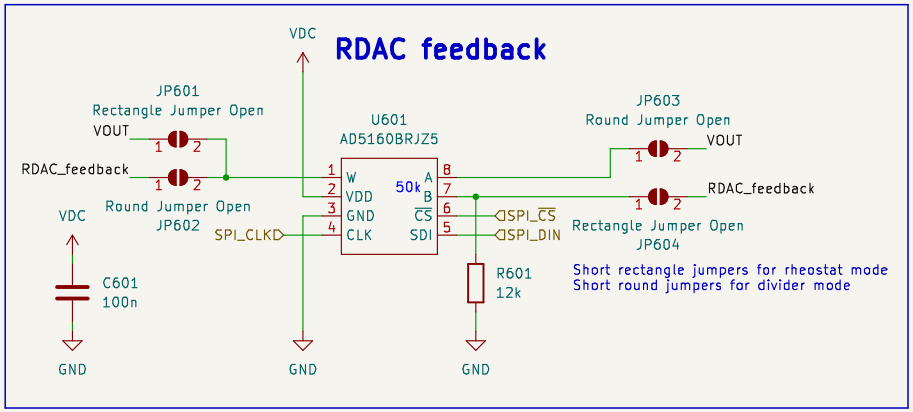
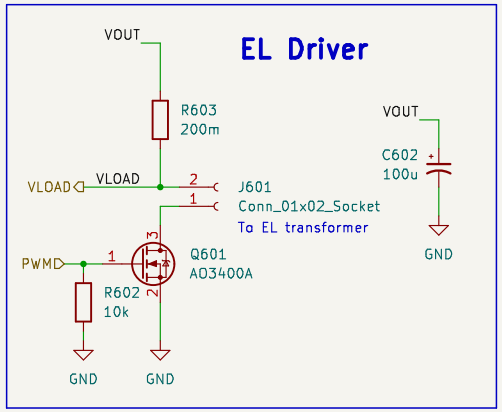
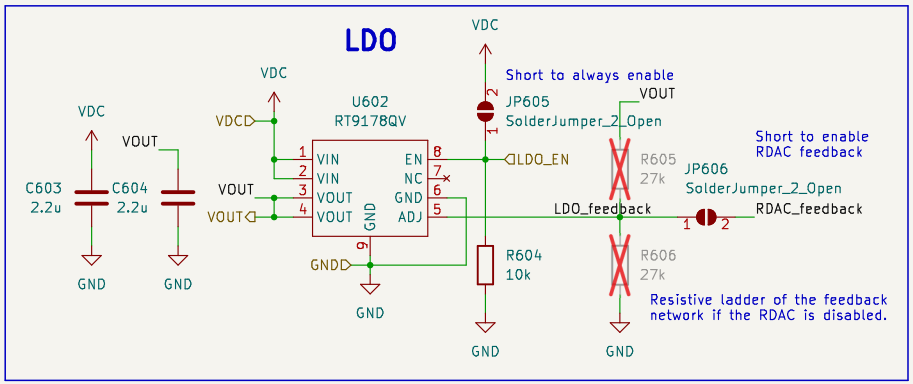
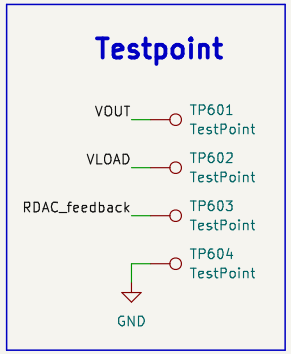
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 7.0.10-7.0.10~ubuntu22.04.1		Id: 5/7





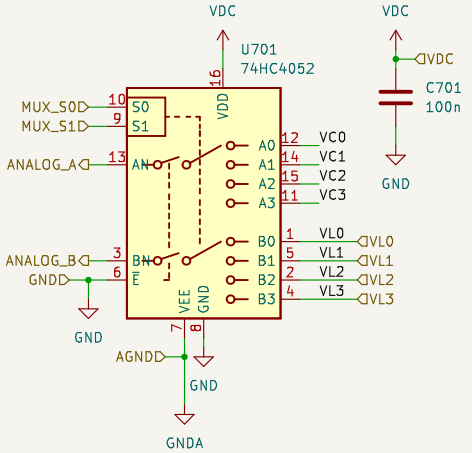
Divider mode calculation.
https://www.geogebra.org/calculator/vzmcez3b



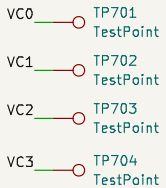


Sheet: /EL driver 3/		
File: ELDM.kicad_sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 7.0.10-7.0.10~ubuntu22.04.1		Id: 6/7

ADC input MUX

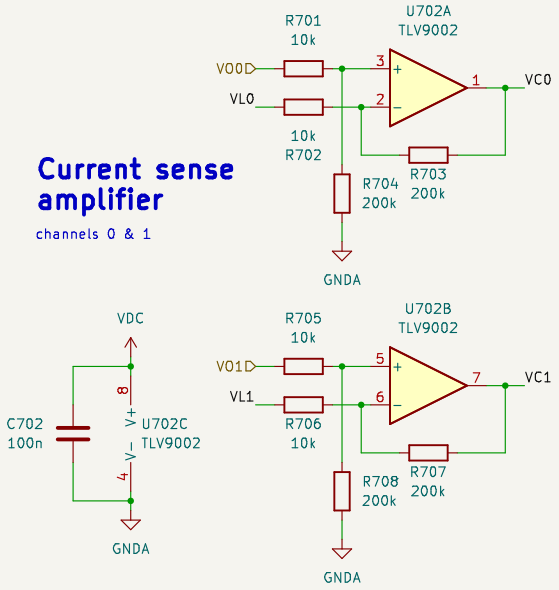


Testpoint



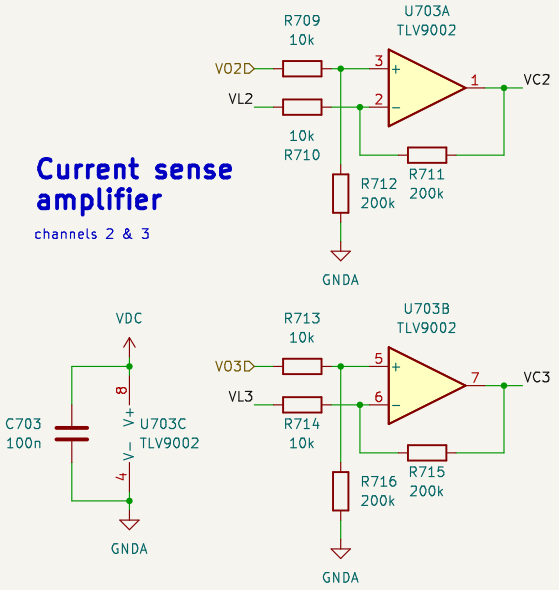
Current sense amplifier

channels 0 & 1



Current sense amplifier

channels 2 & 3



Sheet: /Analogue signal processing/ File: ASP.kicad_sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 7.0.10-7.0.10~ubuntu22.04.1		Id: 7/7