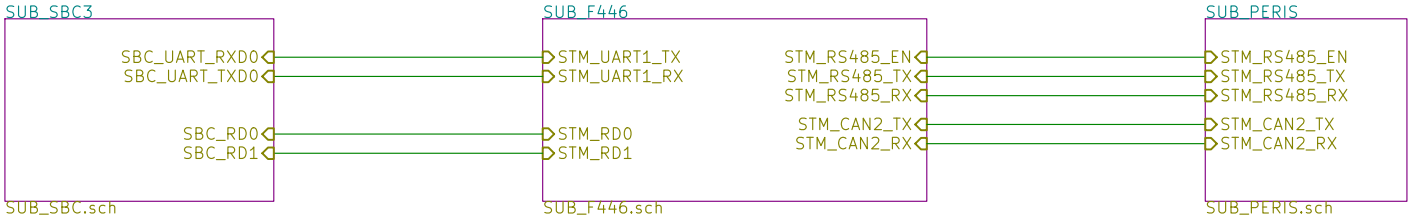

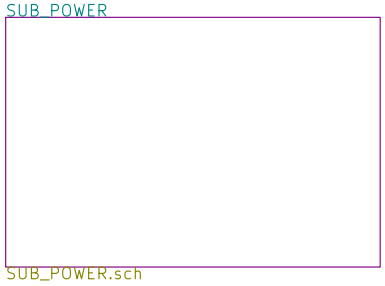

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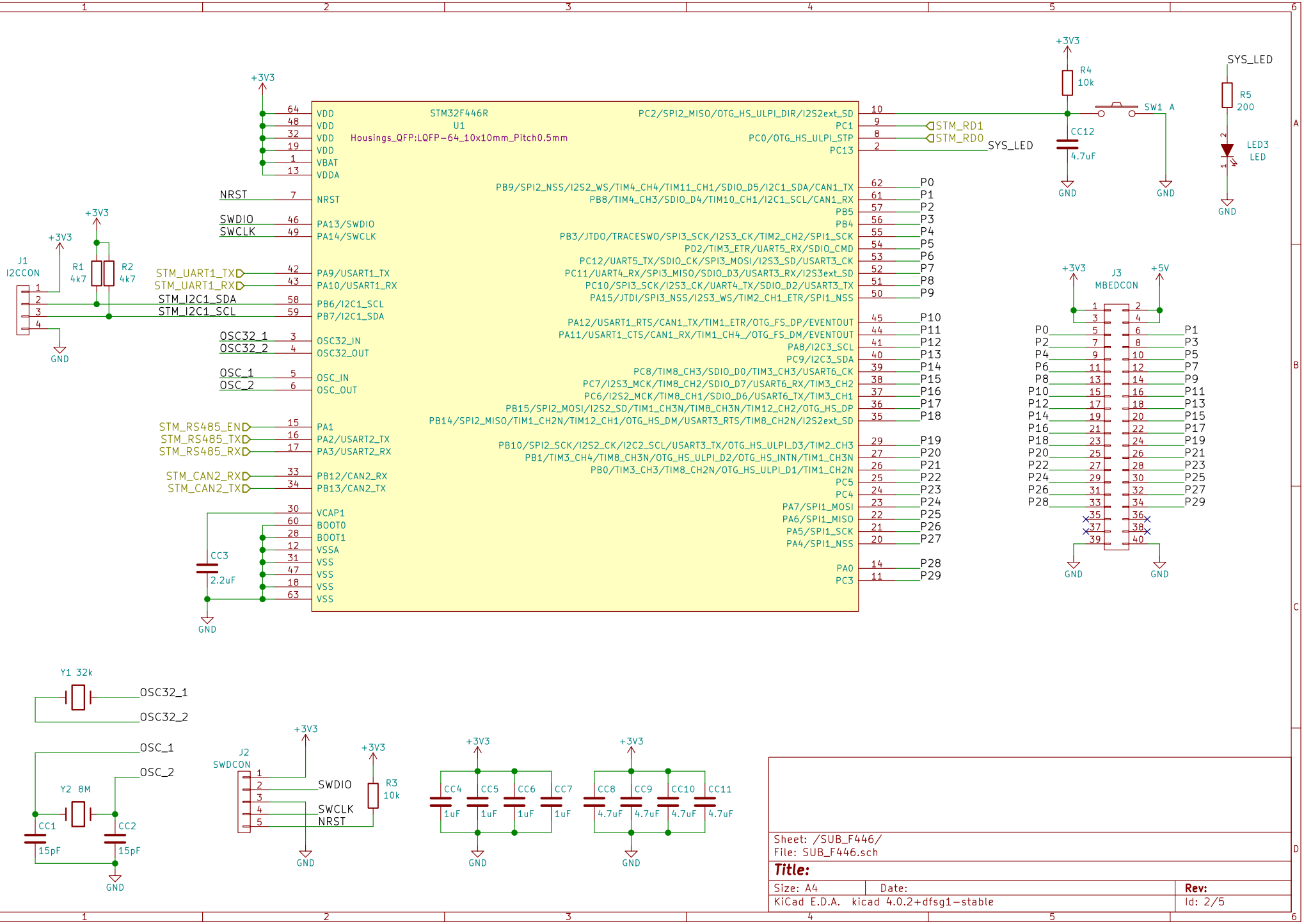
STM32F446R
U1
Housings_QFP:LQFP-64_10x10mm_Pitch0.5mm
VDD
VBAT
VDDA
NRST
PA13/SWDIO
PA14/SWCLK
PA9/USART1_TX
PA10/USART1_RX
PB6/I2C1_SCL
PB7/I2C1_SDA
OSC32_IN
OSC32_OUT
OSC_IN
OSC_OUT
PA1
PA2/USART2_TX
PA3/USART2_RX
PB12/CAN2_RX
PB13/CAN2_TX
VCAP1
BOOT0
BOOT1
VSSA
VSS
PC2/SPI2_MISO/OTG_HS_ULPI_DIR/I2S2ext_SD
PC1
PC0/OTG_HS_ULPI_STP
PC13
PB9/SPI2_NSS/I2S2_WS/TIM4_CH4/TIM11_CH1/SDIO_D5/I2C1_SDA/CAN1_TX
PB8/TIM4_CH3/SDIO_D4/TIM10_CH1/I2C1_SCL/CAN1_RX
PB5
PB4
PB3/JTDO/TRACESWO/SPI3_SCK/I2S3_CK/TIM2_CH2/SPI1_SCK
PD2/TIM3_ETR/UART5_RX/SDIO_CMD
PC12/UART5_TX/SDIO_CK/SPI3_MOSI/I2S3_SD/USART3_CK
PC11/UART4_RX/SPI3_MISO/SDIO_D3/USART3_RX/I2S3ext_SD
PC10/SPI3_SCK/I2S3_CK/UART4_TX/SDIO_D2/USART3_TX
PA15/JTDI/SPI3_NSS/I2S3_WS/TIM2_CH1_ETR/SPI1_NSS
PA12/USART1_RTS/CAN1_TX/TIM1_ETR/OTG_FS_DP/EVENTOUT
PA11/USART1_CTS/CAN1_RX/TIM1_CH4_/OTG_FS_DM/EVENTOUT
PA8/I2C3_SCL
PC9/I2C3_SDA
PC8/TIM8_CH3/SDIO_D0/TIM3_CH3/USART6_CK
PC7/I2S3_MCK/TIM8_CH2/SDIO_D7/USART6_RX/TIM3_CH2
PC6/I2S2_MCK/TIM8_CH1/SDIO_D6/USART6_TX/TIM3_CH1
PB15/SPI2_MOSI/I2S2_SD/TIM1_CH3N/TIM8_CH3N/TIM12_CH2/OTG_HS_DP
PB14/SPI2_MISO/TIM1_CH2N/TIM12_CH1/OTG_HS_DM/USART3_RTS/TIM8_CH2N/I2S2ext_SD
PB10/SPI2_SCK/I2S2_CK/I2C2_SCL/USART3_TX/OTG_HS_ULPI_D3/TIM2_CH3
PB1/TIM3_CH4/TIM8_CH3N/OTG_HS_ULPI_D2/OTG_HS_INTN/TIM1_CH3N
PB0/TIM3_CH3/TIM8_CH2N/OTG_HS_ULPI_D1/TIM1_CH2N
PC5
PC4
PA7/SPI1_MOSI
PA6/SPI1_MISO
PA5/SPI1_SCK
PA4/SPI1_NSS
PA0
PC3
+3V3
GND
J1
I2CCON
R1
4k7
R2
4k7
STM_UART1_TX
STM_UART1_RX
STM_I2C1_SDA
STM_I2C1_SCL
CC3
2.2uF
STM_RS485_EN
STM_RS485_TX
STM_RS485_RX
STM_CAN2_RX
STM_CAN2_TX
R4
10k
SW1 A
CC12
4.7uF
STM_RD1
STM_RD0
SYS_LED
R5
200
LED3
LED
J3
MBEDCON
+5V
P0
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
P21
P22
P23
P24
P25
P26
P27
P28
P29
Y1 32k
OSC32_1
OSC32_2
OSC_1
OSC_2
Y2 8M
CC1
15pF
CC2
15pF
J2
SWDCON
SWDIO
SWCLK
NRST
R3
10k
CC4
CC5
CC6
CC7
1uF
CC8
CC9
CC10
CC11
4.7uF
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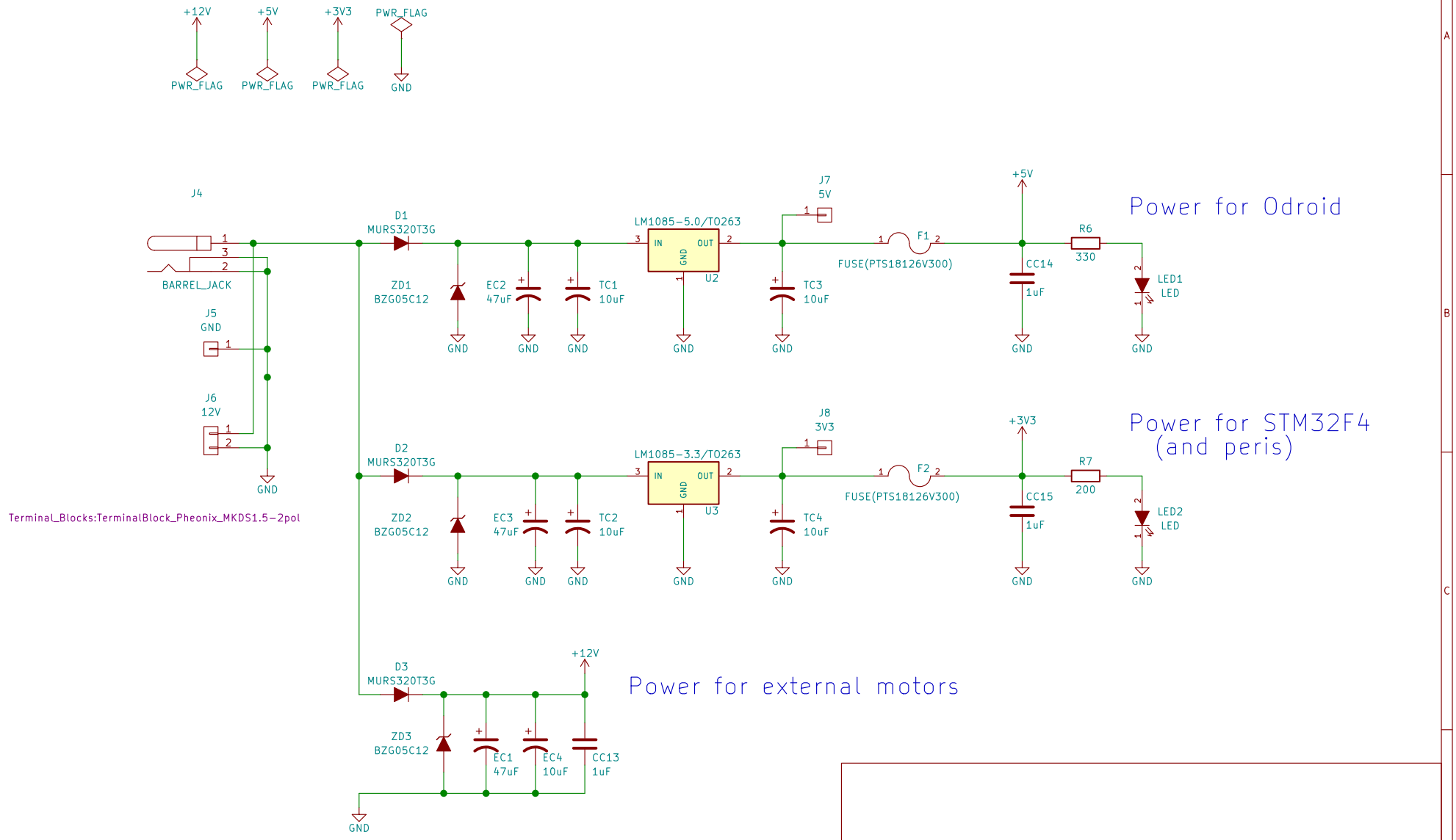
+12V
PWR_FLAG
+5V
PWR_FLAG
+3V3
PWR_FLAG
PWR_FLAG
GND
J4
BARREL_JACK
J5
GND
J6
12V
GND
Terminal_Blocks:TerminalBlock_Pheonix_MKDS1.5-2pol
D1
MURS320T3G
ZD1
BZG05C12
EC2
47uF
TC1
10uF
LM1085-5.0/TO263
U2
J7
5V
TC3
10uF
F1
FUSE(PTS18126V300)
+5V
CC14
1uF
R6
330
LED1
LED
Power for Odroid
D2
MURS320T3G
ZD2
BZG05C12
EC3
47uF
TC2
10uF
LM1085-3.3/TO263
U3
J8
3V3
TC4
10uF
F2
FUSE(PTS18126V300)
+3V3
CC15
1uF
R7
200
LED2
LED
Power for STM32F4
(and peris)
D3
MURS320T3G
ZD3
BZG05C12
EC1
47uF
EC4
10uF
CC13
1uF
+12V
Power for external motors
Sheet: /SUB_POWER/
File: SUB_POWER.sch
Title:
Size: A4
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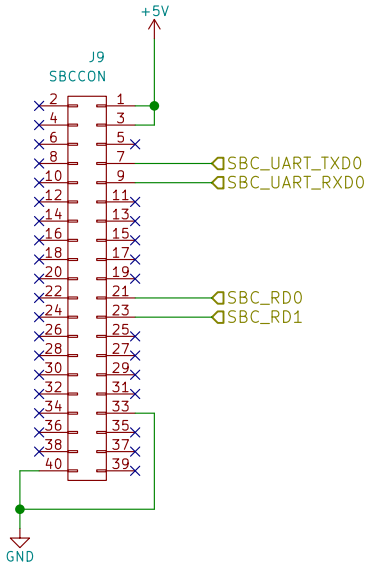

Be careful !!
To supply power to Odroid C2 via 1mm route,
the pins are opposite.

(Origianlly pin 2, 4 are 5V.)

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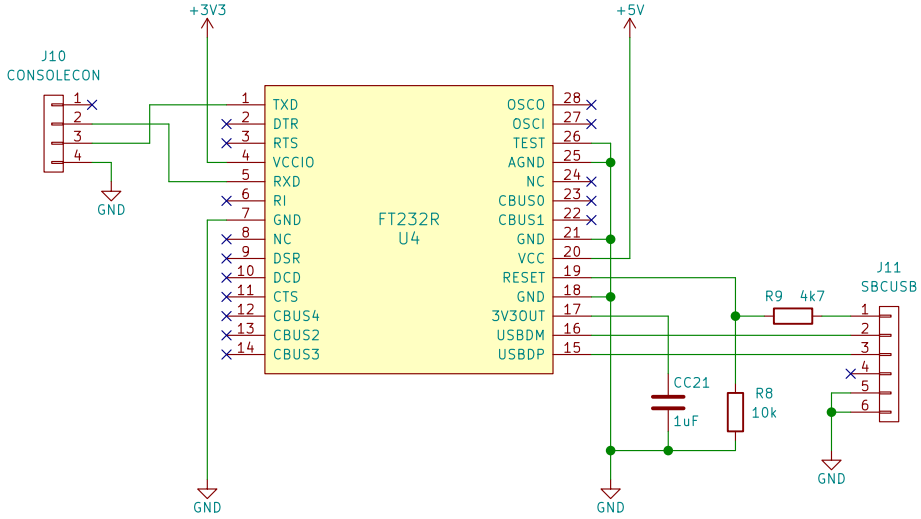
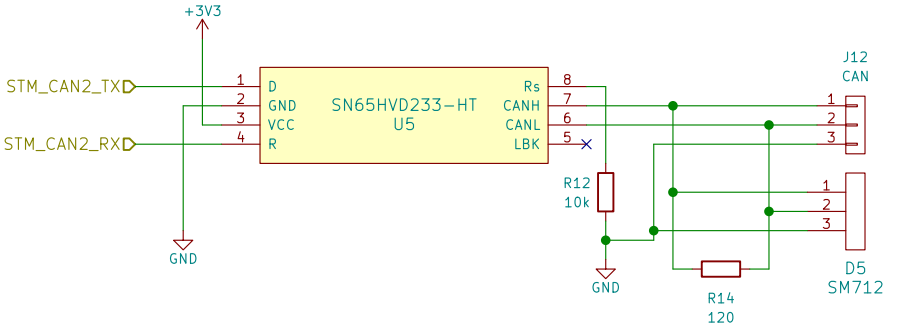
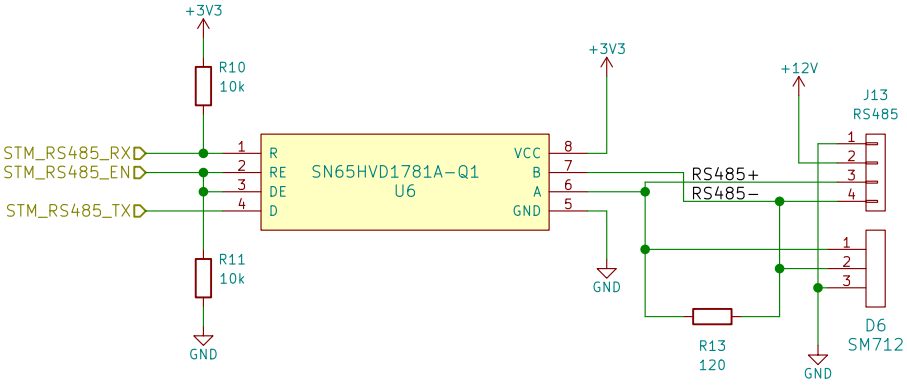
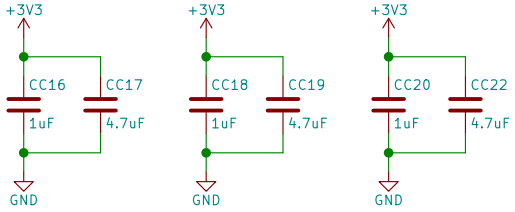






Use Molex 22-03-5045 (or Molex 5268-04a. Pin pitch 2.5mm)
for the RS485CON and CONSOLECON.

The mate can be Molex 50-37-5043.



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