

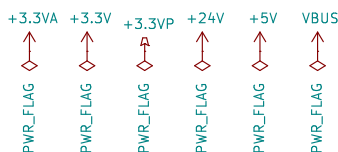
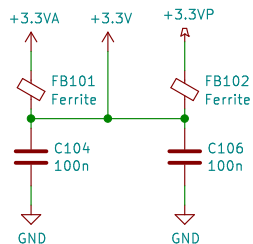
H101 MountingHole
H102 MountingHole
H103 MountingHole
H104 MountingHole

Ser.No G101
SYM_Serial_No

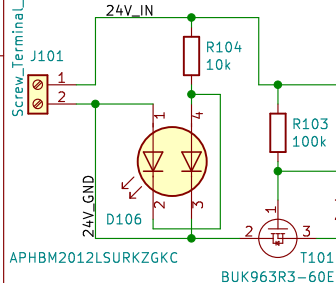
n/w G102
SYM_FHNW_Logo



C104 misplaced on the PCB,
should be near +3.3VA



Screw_Terminal01x02



Sheet: appendix_ESP32



File: appendix_ESP32.sch

ESP_RX_STM
ESP_TX_STM

ESP_TX_USB
ESP_RX_USB

ESP_DTR
ESP_RTS

STM_BOOT_0
STM_NRST

Sheet: appendix_UART_USB



File: appendix_UART_USB.sch

FT_RX_A
FT_TX_A

Sheet: appendix_STM32F103



STM32_BOOT_0
STM32_NRST

SPI2_SCK
SPI2_MOSI
SPI2_MISO

DIR_X
STEP_X
EN_X
CS_X
STALL_X

DIR_Y
STEP_Y
EN_Y
CS_Y
STALL_Y

DIR_Z1
STEP_Z1
EN_Z1
CS_Z1
STALL_Z1

DIR_E1
STEP_E1
EN_E1
CS_E1
STALL_E1

ADC_T_E1
ADC_T_BED
ADC_T_PCB

SW_Min_X
SW_Min_Y
SW_Min_Z1
SW_Min_Filament1

FAN1
FAN2
FAN3

BED_ON
E1_ON
SERVO_1
SERVO_2

Sheet: appendix_TMC2660_X



File: appendix_TMC2660_X.sch
Sheet: appendix_SENSORS_POWER

ADC_TEMP_E1
ADC_TEMP_BED
ADC_TEMP_PCB

SW_End_X
SW_End_Y
SW_End_Z
SW_End_Filament1

FAN1_ON
FAN2_ON
FAN3_ON

BED_SIG_ON
E1_SIG_ON
SERVO_1
SERVO_2

File: appendix_STM32F103.sch

File: appendix_SENSORS_POWER.sch



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Sheet: /
File: FHNW-Pro4E-FS19T8-3DPrinterBoard-STM32.sch

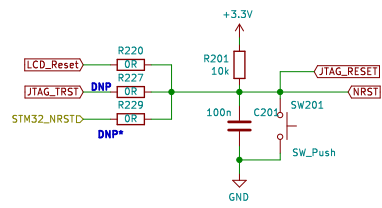
Title: 3D Printer Board STM32F103

Size: A4 Date: 2019-04-02

KiCad E.D.A. kicad (5.1.0)-1

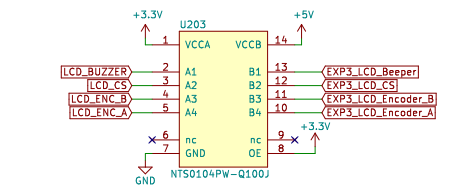
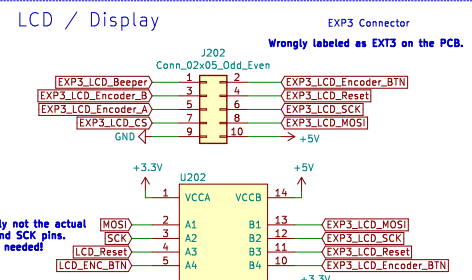
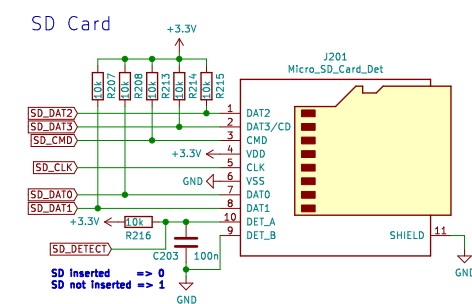
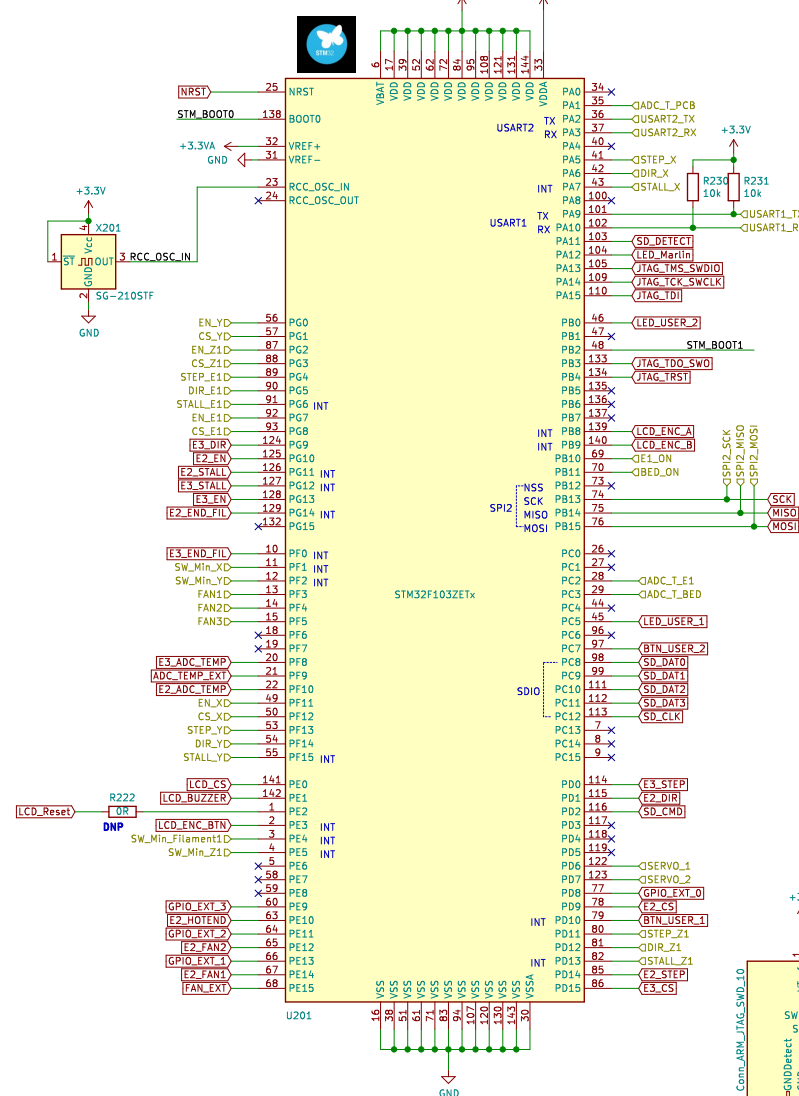
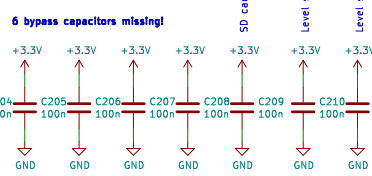
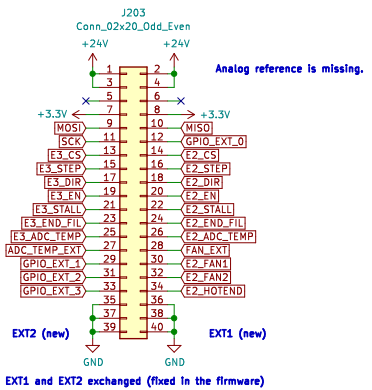
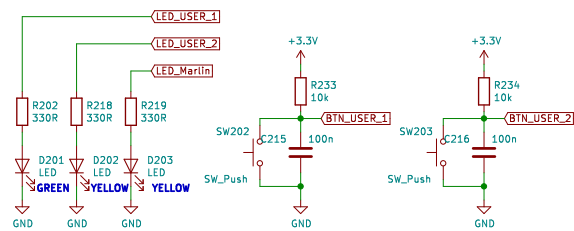
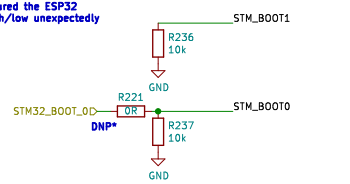
Rev: 1

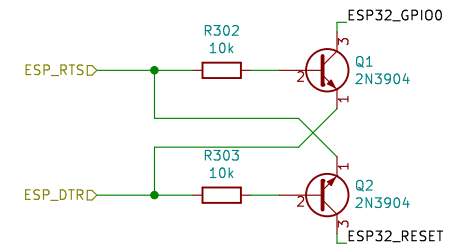
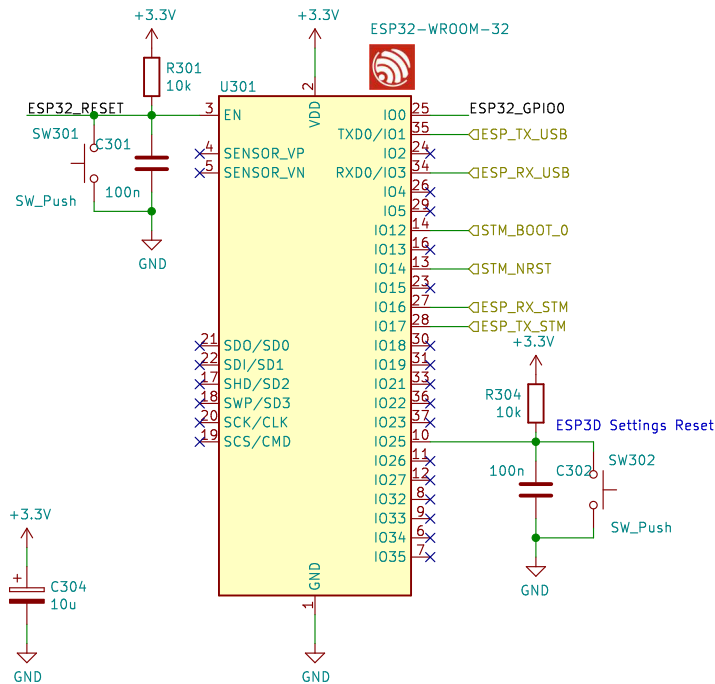
Id: 1/6



either R220 or R222 have to be populated,
=> R220 will probably work fine

*) will be populated once ensured the ESP32
will not pull those pins high/low unexpectedly

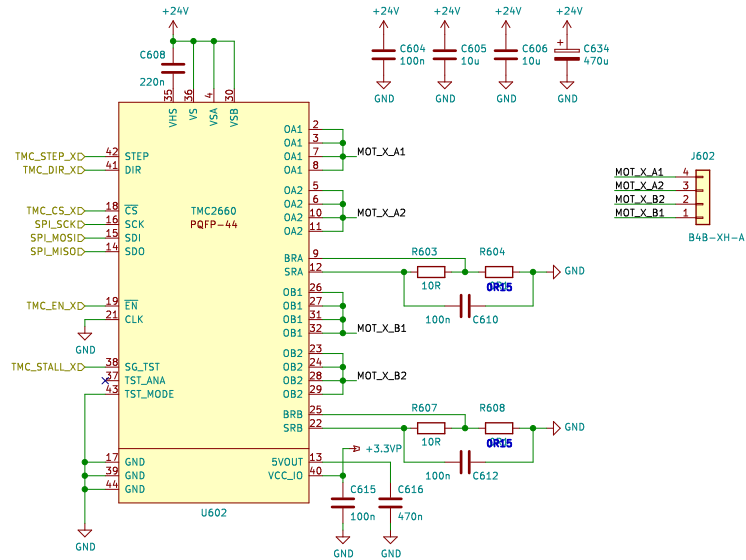




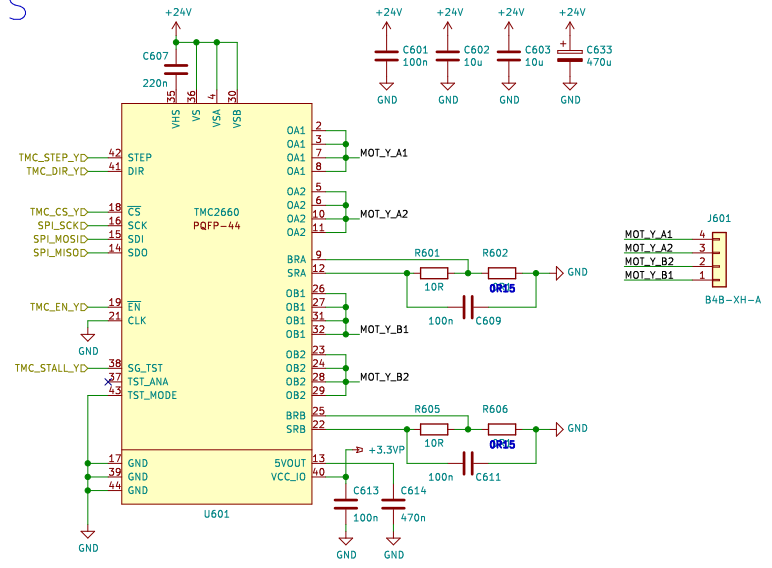
DTR RTS ==> EN 100

1	1	1	1
0	0	1	1
1	0	0	1
0	1	1	0

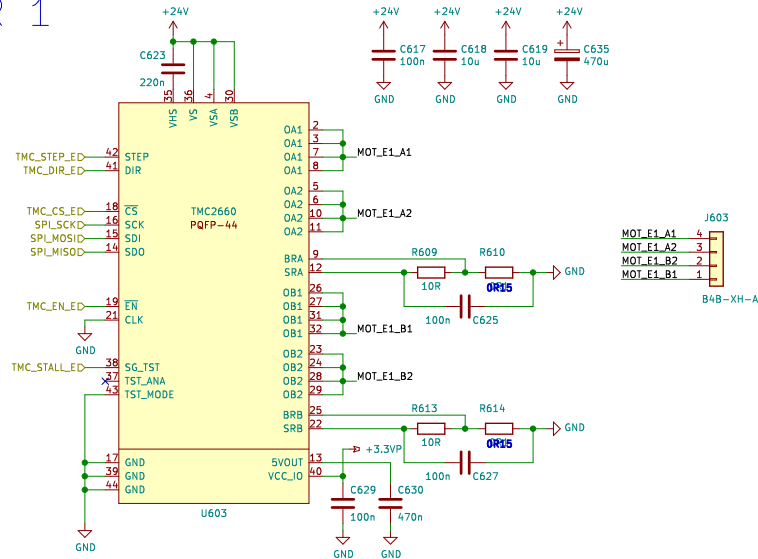
X AXIS



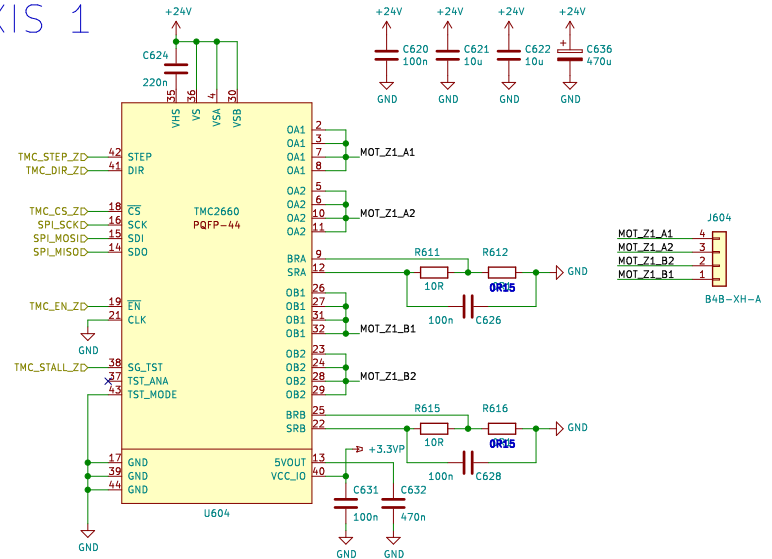
Y AXIS



EXTRUDER 1



Z AXIS 1



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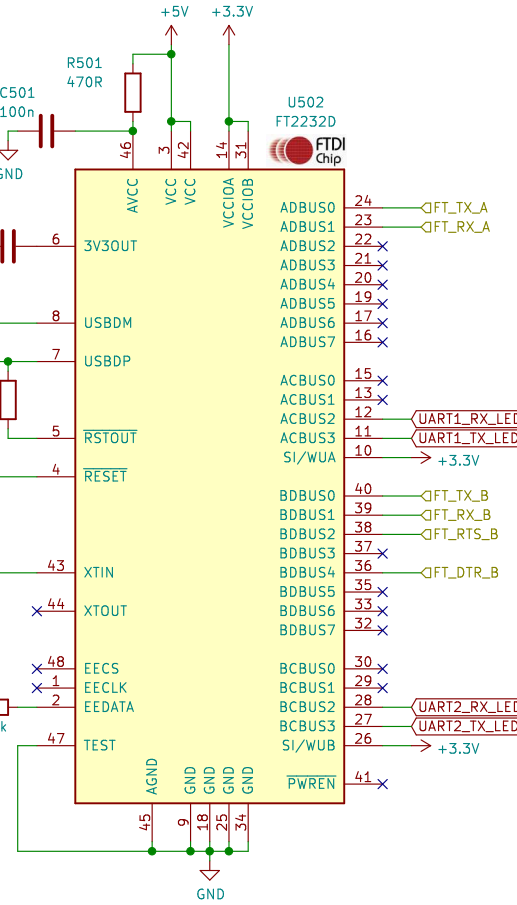
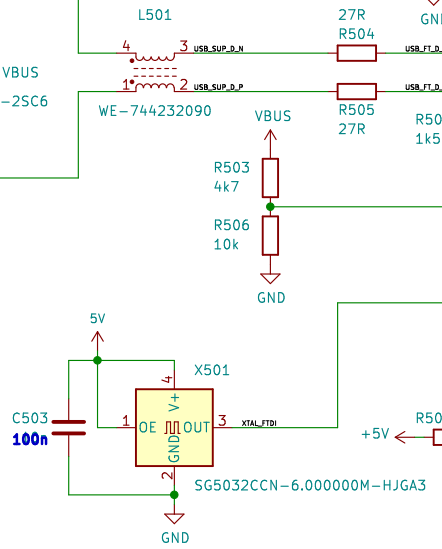
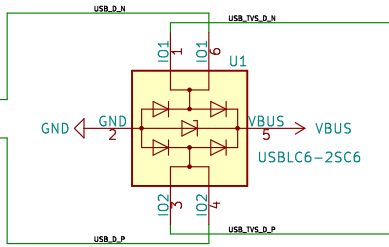
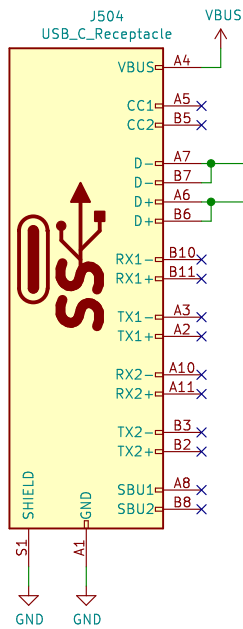
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Sheet: /appendix_TMC2660_X/
File: appendix_TMC2660_X.sch

Title: TMC2660 Stepper Drivers

Size: A3 Date:
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Rev: 1
Id: 4/6



RX_STM_to_TX_FTDI

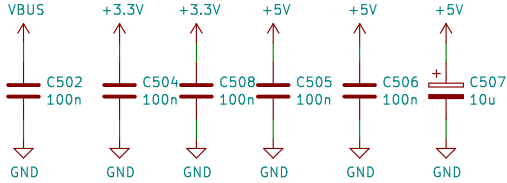
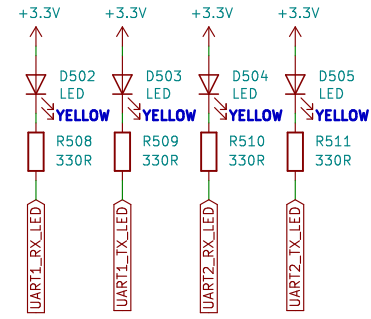
TX_STM_to_RX_FTDI

RX_ESP_to_TX_FTDI

TX_ESP_to_RX_FTDI

RTS_ESP32

DTR_ESP32



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Sheet: /appendix_UART_USB/
File: appendix_UART_USB.sch

Title: USB to UART Interface

Size: A4	Date:	Rev: 1
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