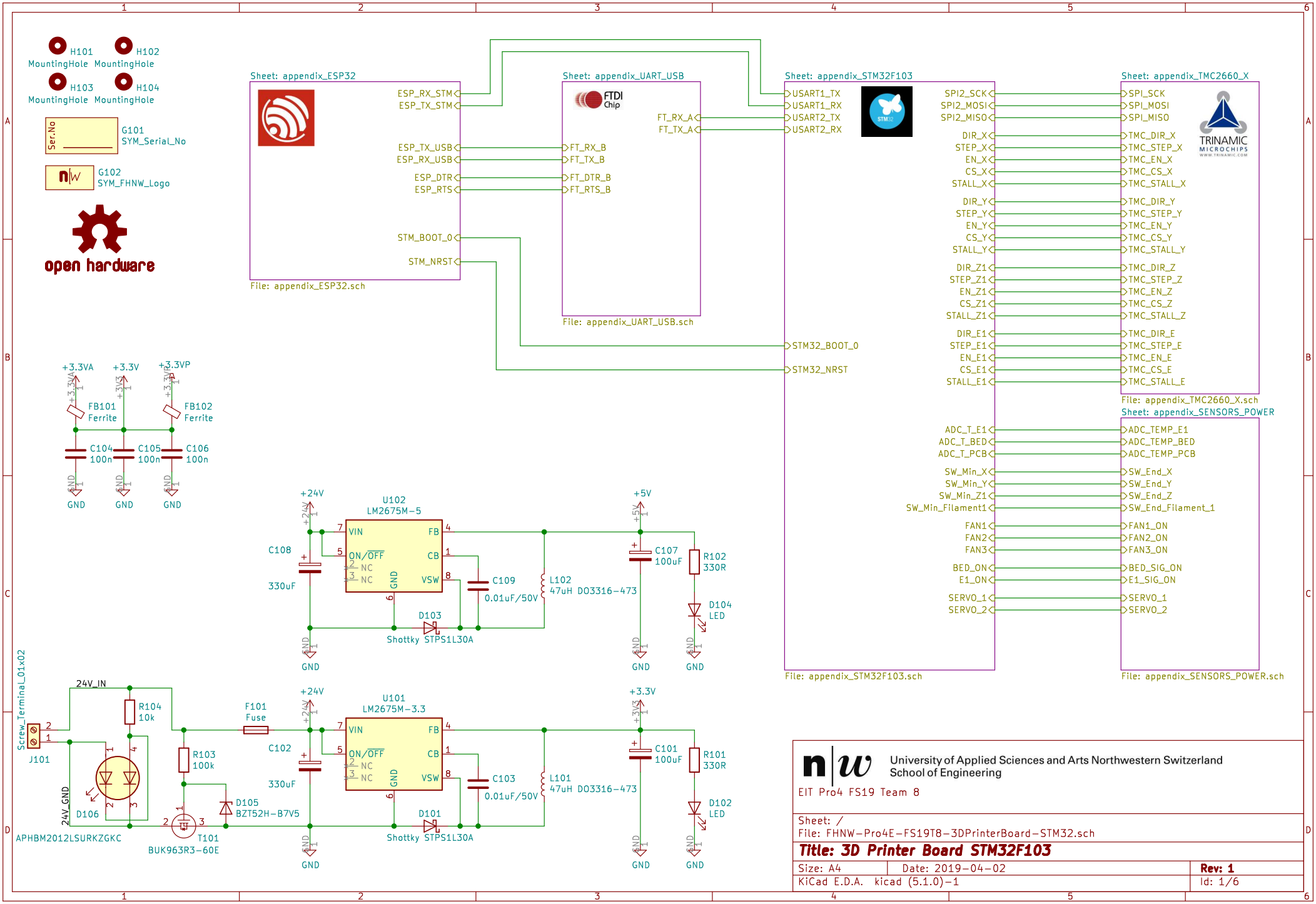


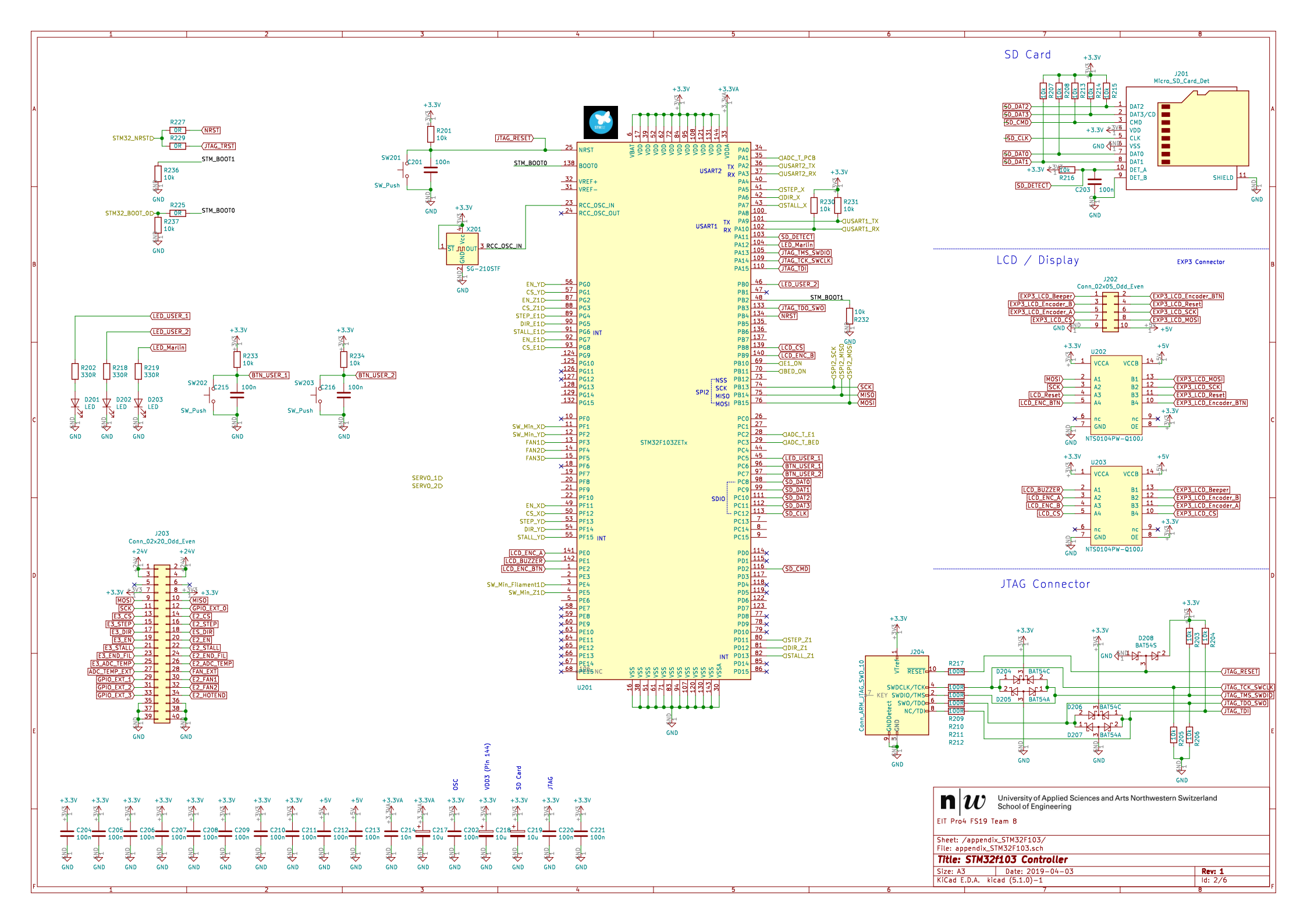
University of Applied Sciences and Arts Northwestern Switzerland
School of Engineering

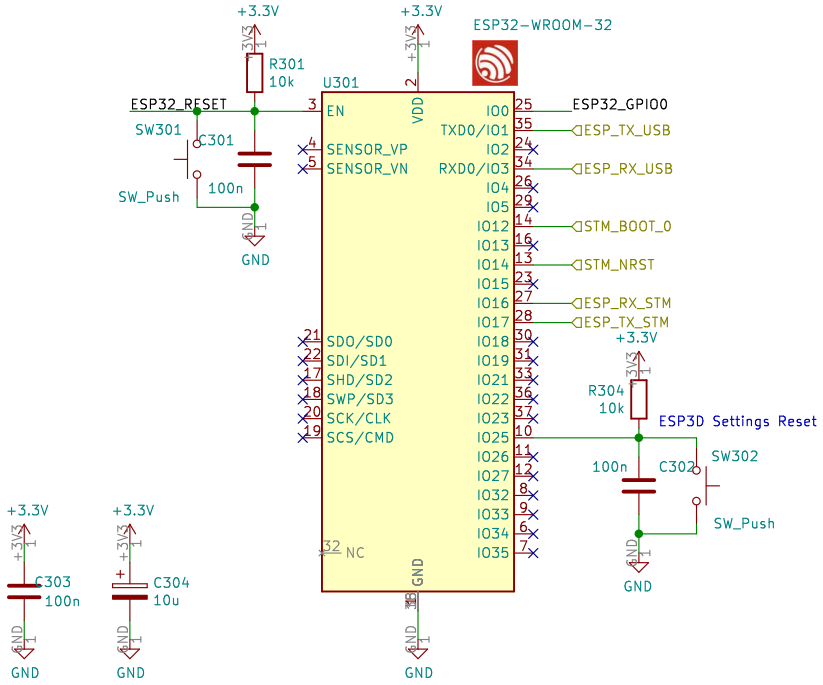
EIT Pro4 FS19 Team 8

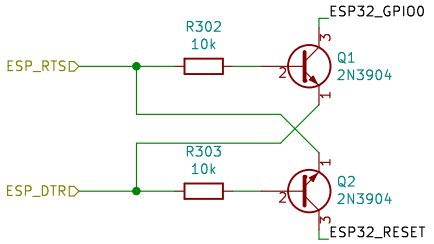
Sheet: /
File: FHNW-Pro4E-FS19T8-3DPrinterBoard-STM32.sch

Title: 3D Printer Board STM32F103

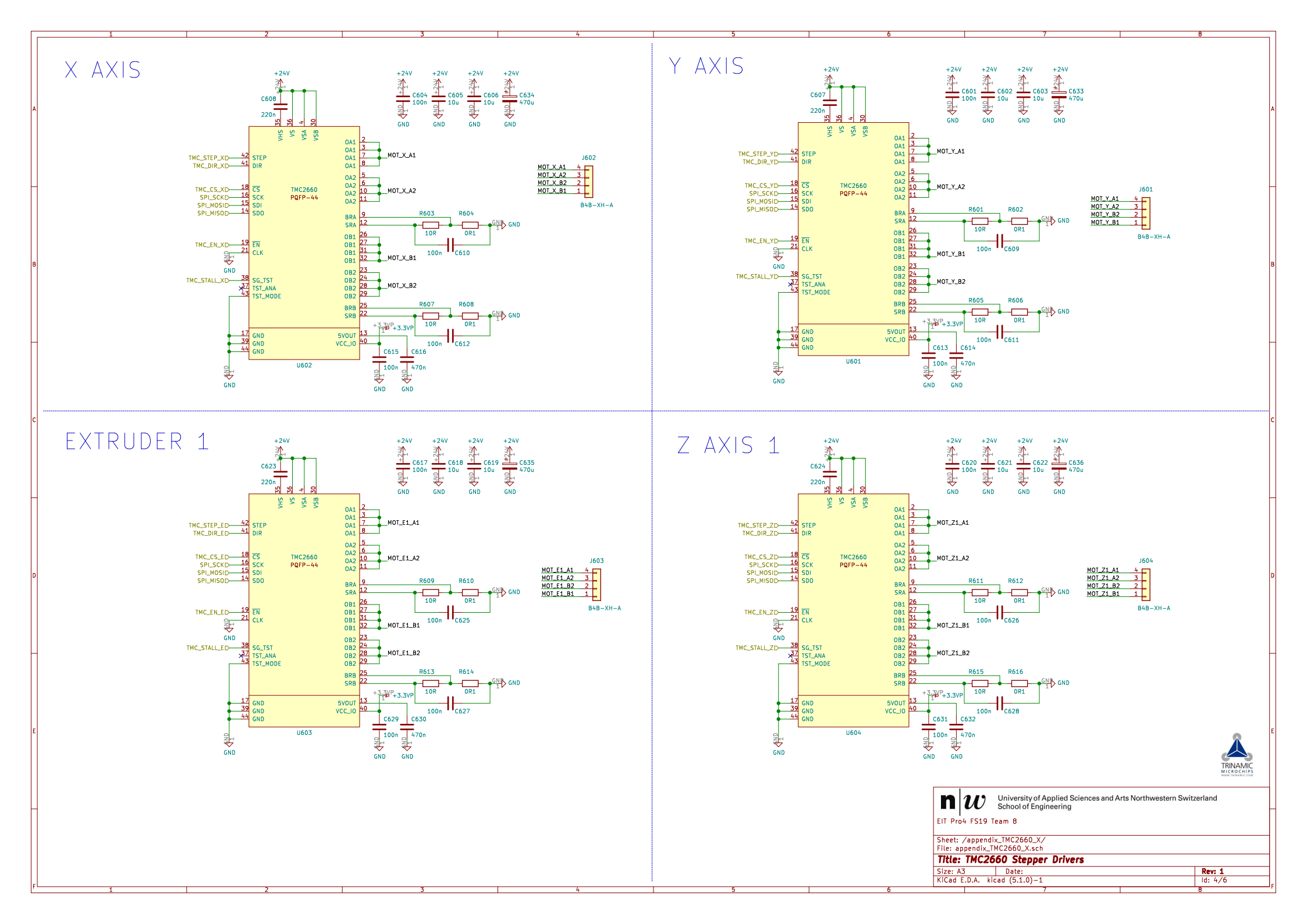
Size: A4	Date: 2019-04-02	**Rev: 1**
KiCad E.D.A. kicad (5.1.0)-1		Id: 1/6

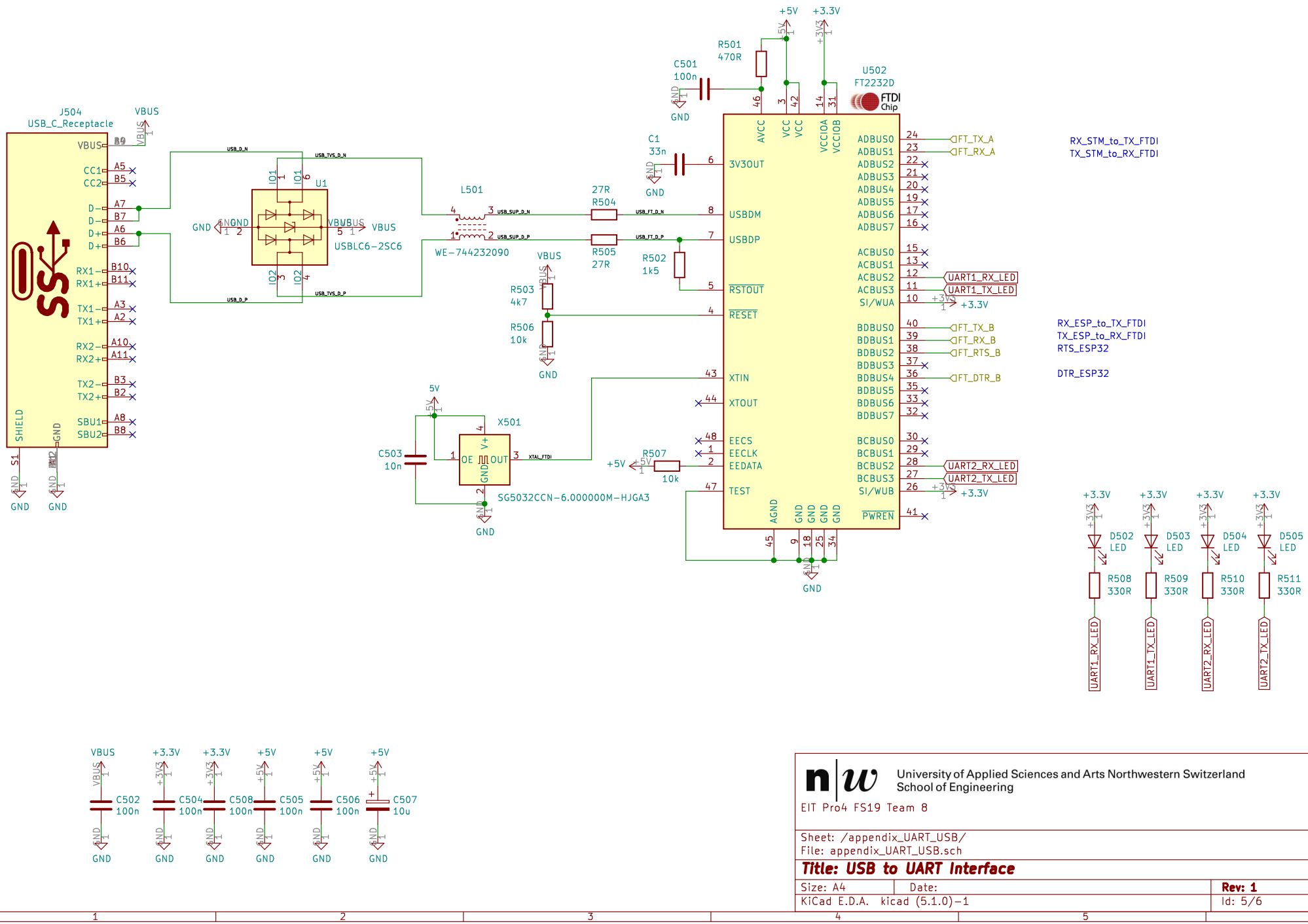

SD Card
LCD / Display
EXP3 Connector
JTAG Connector
STM32F103ZETx
U201
J201
Micro_SD_Card_Det
J202
Conn_02x05_Odd_Even
U202
U203
NTS0104PW-Q100J
J203
Conn_02x20_Odd_Even
J204
Conn_ARM_JTAG_SWD_10
X201
SG-210STF
SW201
SW202
SW203
SW_Push
LED_USER_1
LED_USER_2
LED_Marlin
BTN_USER_1
BTN_USER_2
JTAG_RESET
STM_BOOT0
STM_BOOT1
STM32_NRST
STM32_BOOT_0
SERVO_1
SERVO_2
OSC
VDD3 (Pin 144)
SD Card
JTAG
University of Applied Sciences and Arts Northwestern Switzerland
School of Engineering
EIT Pro4 FS19 Team 8
Sheet: /appendix_STM32F103/
File: appendix_STM32F103.sch
Title: STM32f103 Controller
Size: A3
Date: 2019-04-03
Rev: 1
KiCad E.D.A. kicad (5.1.0)-1
Id: 2/6





University of Applied Sciences and Arts Northwestern Switzerland School of Engineering	
EIT Pro4 FS19 Team 8	
Sheet: /appendix_ESP32/ File: appendix_ESP32.sch	
Title:	
Size: A4	Date:
KiCad E.D.A. kicad (5.1.0)-1	**Rev: 1** Id: 3/6


X AXIS
Y AXIS
EXTRUDER 1
Z AXIS 1
TMC2660
PQFP-44
U602
U601
U603
U604
J602
J601
J603
J604
B4B-XH-A
TRINAMIC
MICROCHIPS
University of Applied Sciences and Arts Northwestern Switzerland
School of Engineering
EIT Pro4 FS19 Team 8
Sheet: /appendix_TMC2660_X/
File: appendix_TMC2660_X.sch
Title: TMC2660 Stepper Drivers
Size: A3
Date:
Rev: 1
KiCad E.D.A. kicad (5.1.0)-1
Id: 4/6



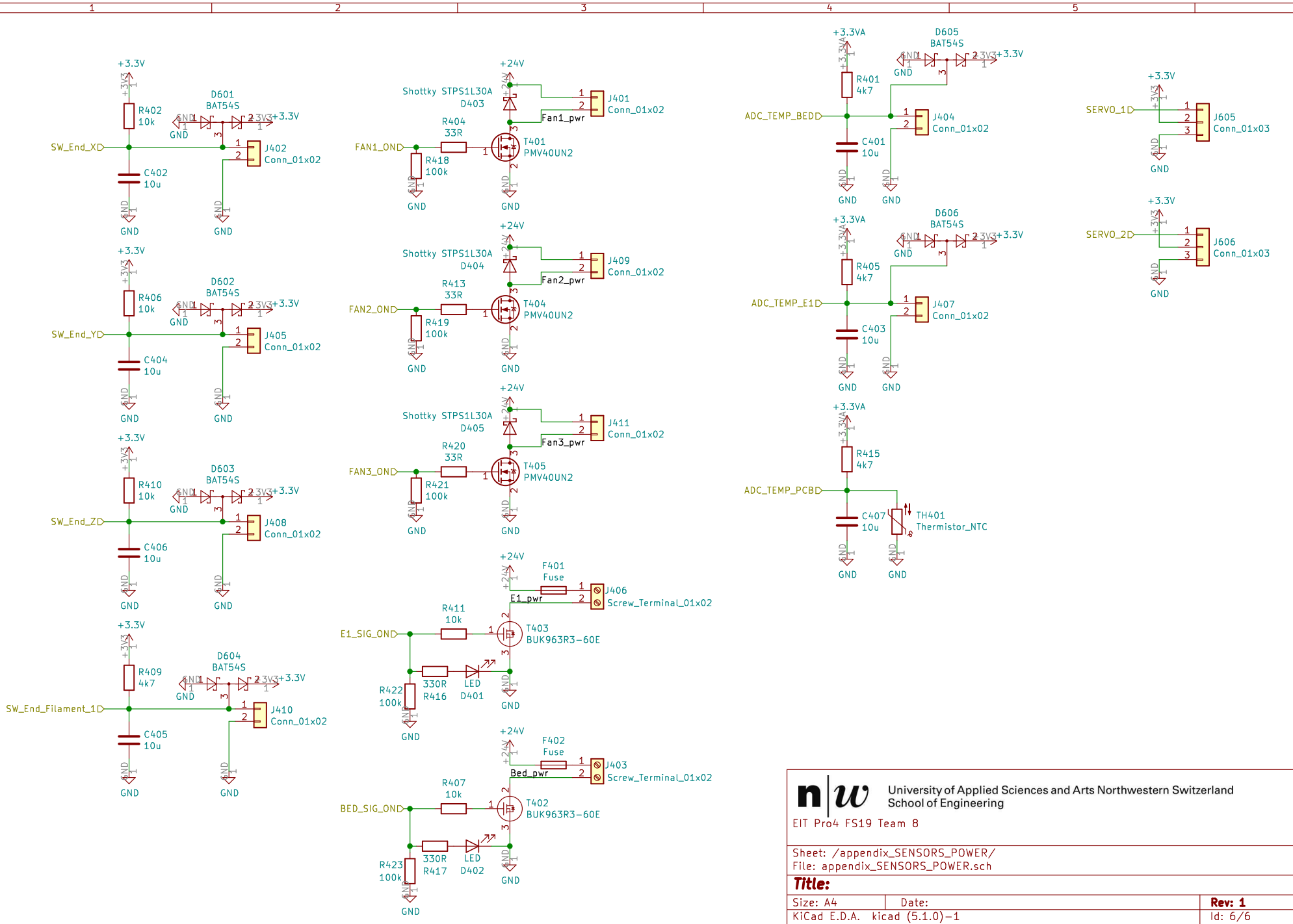
University of Applied Sciences and Arts Northwestern Switzerland
School of Engineering

EIT Pro4 FS19 Team 8

Sheet: /appendix_UART_USB/
File: appendix_UART_USB.sch

Title: USB to UART Interface

Size: A4	Date:	**Rev: 1**
KiCad E.D.A. kicad (5.1.0)-1		Id: 5/6


+3.3V
R402
10k
D601
BAT54S
SW_End_X
J402
Conn_01x02
C402
10u
GND
R406
10k
D602
BAT54S
SW_End_Y
J405
Conn_01x02
C404
10u
R410
10k
D603
BAT54S
SW_End_Z
J408
Conn_01x02
C406
10u
R409
4k7
D604
BAT54S
SW_End_Filament_1
J410
Conn_01x02
C405
10u
+24V
Shottky STPS1L30A
D403
J401
Conn_01x02
Fan1_pwr
R404
33R
FAN1_ON
T401
PMV40UN2
R418
100k
Shottky STPS1L30A
D404
J409
Conn_01x02
Fan2_pwr
R413
33R
FAN2_ON
T404
PMV40UN2
R419
100k
Shottky STPS1L30A
D405
J411
Conn_01x02
Fan3_pwr
R420
33R
FAN3_ON
T405
PMV40UN2
R421
100k
F401
Fuse
J406
Screw_Terminal_01x02
E1_pwr
R411
10k
E1_SIG_ON
T403
BUK963R3-60E
330R
R416
LED
D401
R422
100k
F402
Fuse
J403
Screw_Terminal_01x02
Bed_pwr
R407
10k
BED_SIG_ON
T402
BUK963R3-60E
330R
R417
LED
D402
R423
100k
+3.3VA
D605
BAT54S
R401
4k7
ADC_TEMP_BED
J404
Conn_01x02
C401
10u
D606
BAT54S
R405
4k7
ADC_TEMP_E1
J407
Conn_01x02
C403
10u
R415
4k7
ADC_TEMP_PCB
C407
10u
TH401
Thermistor_NTC
SERVO_1
J605
Conn_01x03
SERVO_2
J606
Conn_01x03
University of Applied Sciences and Arts Northwestern Switzerland
School of Engineering
EIT Pro4 FS19 Team 8
Sheet: /appendix_SENSORS_POWER/
File: appendix_SENSORS_POWER.sch
Title:
Size: A4
Date:
Rev: 1
KiCad E.D.A. kicad (5.1.0)-1
Id: 6/6