

Sheet: misc\_output

MOSFET1\_EN MOSFET1\_EN  
MOSFET2\_EN MOSFET2\_EN  
MOSFET3\_EN MOSFET3\_EN  
MOSFET4\_EN MOSFET4\_EN

Top\_Light DOWNWARDS\_LIGHT\_SIG  
Bottom\_Light UPWARDS\_LIGHT\_SIG  
Servo1 SERVO1\_SIG  
Servo2 SERVO2\_SIG

SDA SDA  
SCL SCL  
COP1 COP1  
CIP0 CIP0  
SCK SCK

RS485\_R0 RS485\_R0  
RS485\_DE RS485\_DE  
RS485\_DI RS485\_DI  
RS485\_RE RS485\_RE

AUX1-A1 AUX1-A1  
AUX1-A2 AUX1-A2  
AUX1-PWM1 AUX1-PWM1  
AUX1-PWM2 AUX1-PWM2

AUX2-A1 AUX2-A1  
AUX2-A2 AUX2-A2  
AUX2-PWM1 AUX2-PWM1  
AUX2-PWM2 AUX2-PWM2

AUX3-A1 AUX3-A1  
AUX3-A2 AUX3-A2  
AUX3-PWM1 AUX3-PWM1  
AUX3-PWM2 AUX3-PWM2

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Sheet: motor\_control

COP1 COP1  
CIP0 CIP0  
SCK SCK

X\_EN X\_EN  
X\_STEP X\_STEP  
X\_DIR X\_DIR  
X\_CS\_UART X\_CS\_UART

Y\_EN Y\_EN  
Y\_STEP Y\_STEP  
Y\_DIR Y\_DIR  
Y\_CS\_UART Y\_CS\_UART

Z\_EN Z\_EN  
Z\_STEP Z\_STEP  
Z\_DIR Z\_DIR  
Z\_CS\_UART Z\_CS\_UART

L\_EN L\_EN  
L\_STEP L\_STEP  
L\_DIR L\_DIR  
L\_CS\_UART L\_CS\_UART

R\_EN R\_EN  
R\_STEP R\_STEP  
R\_DIR R\_DIR  
R\_CS\_UART R\_CS\_UART

A\_EN A\_EN  
A\_STEP A\_STEP  
A\_DIR A\_DIR  
A\_CS\_UART A\_CS\_UART

File: motor\_control.sch

Sheet: usb

uC\_D+ uC\_D+  
uC\_D- uC\_D-

File: usb.sch

Sheet: misc\_input

SDA SDA  
SCL SCL

X\_Limit X\_LIMIT  
Y\_Limit Y\_LIMIT  
Z\_Limit Z\_LIMIT  
L\_Limit L\_LIMIT  
R\_Limit R\_LIMIT  
A\_Limit A\_LIMIT

File: misc\_input.sch

Sheet: power

File: power.sch

J1 SWD Header

RESET RESET  
SWCLK SWCLK  
SWDIO SWDIO

TP3 RESET\_TestPoint  
TP4 SWCLK\_TestPoint  
TP5 SWDIO\_TestPoint

Sheet: /	FID1	H1	H3
File: mobo.sch	FID2	MountingHole	MountingHole
<b>Title: Index Mobo</b>	FID3	H2	H4
Size: A4	FID5	MountingHole	MountingHole
KiCad E.D.A.	eeschema 5.1.9+dfsg1-1bpo10+1	Date: 2021-02-19	Rev: 003
			Id: 1/16

Sheet: Motor X  
X\_END >> EN    CIPO >> CIPO  
X\_STEP >> STEP    COPI >> COPI  
X\_DIR >> DIR    SCK >> SCK  
CS\_UART << X\_CS\_UART  
File: motor.sch

Sheet: Motor AUX  
A\_END >> EN    CIPO >> CIPO  
A\_STEP >> STEP    COPI >> COPI  
A\_DIR >> DIR    SCK >> SCK  
CS\_UART << A\_CS\_UART  
File: dual\_motors.sch

Sheet: Motor Z  
Z\_END >> EN    CIPO >> CIPO  
Z\_STEP >> STEP    COPI >> COPI  
Z\_DIR >> DIR    SCK >> SCK  
CS\_UART << Z\_CS\_UART  
File: motor.sch

Sheet: Motor Y  
Y\_END >> EN    CIPO >> CIPO  
Y\_STEP >> STEP    COPI >> COPI  
Y\_DIR >> DIR    SCK >> SCK  
CS\_UART << Y\_CS\_UART  
File: dual\_motors.sch

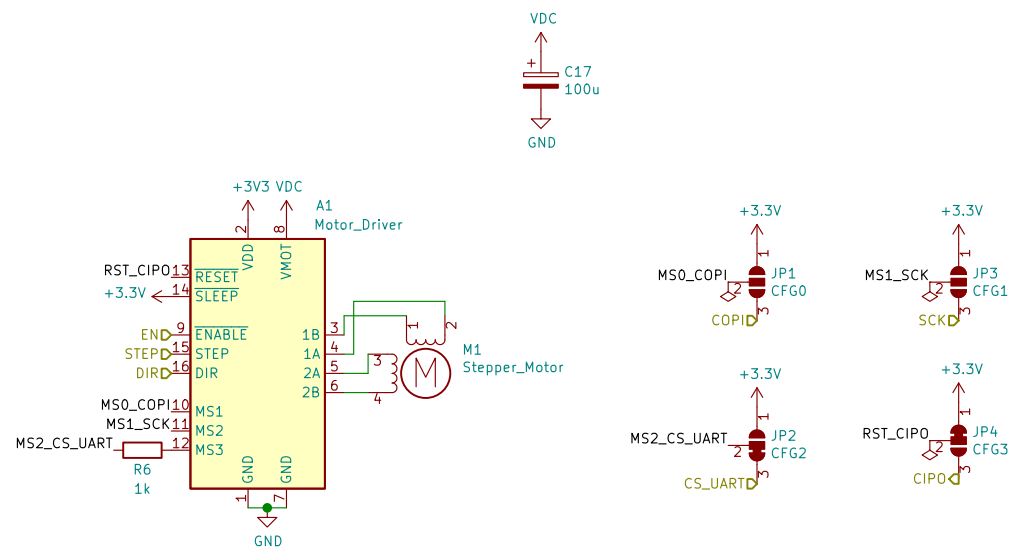
Sheet: Motor Left  
L\_END >> EN    CIPO >> CIPO  
L\_STEP >> STEP    COPI >> COPI  
L\_DIR >> DIR    SCK >> SCK  
CS\_UART << L\_CS\_UART  
File: motor.sch

Sheet: Motor Right  
R\_END >> EN    CIPO >> CIPO  
R\_STEP >> STEP    COPI >> COPI  
R\_DIR >> DIR    SCK >> SCK  
CS\_UART << R\_CS\_UART  
File: motor.sch

Sheet: /motor\_control/  
File: motor\_control.sch

**Title: Motors**

Size: A4	Date: 2021-02-19	Rev: 003
KiCad E.D.A. eeschema 5.1.9+dfsg1-1bpo10+1		Id: 2/16

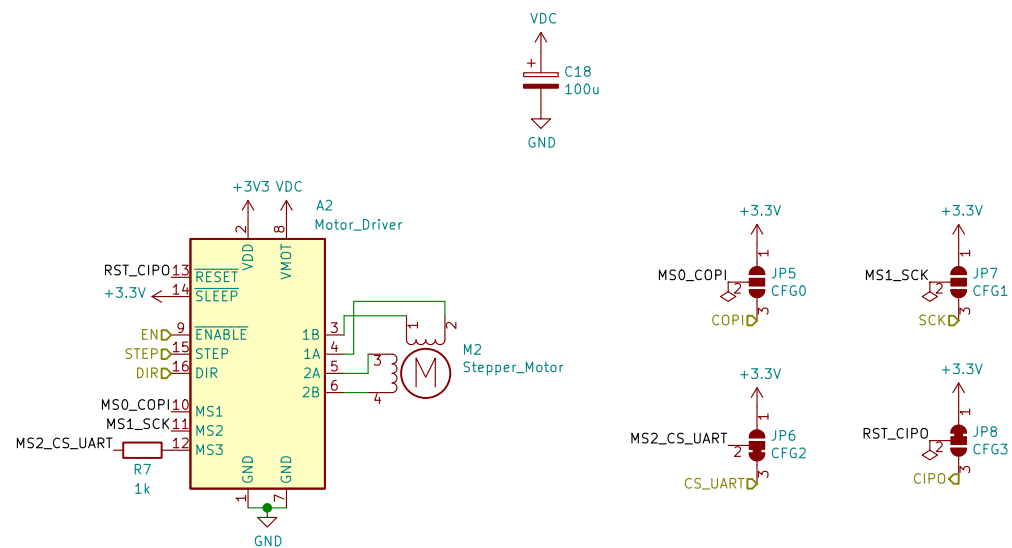


Sheet: /motor\_control/Motor X/  
File: motor.sch

# **Title: Motor**

Size: A4 Date: 2021-02-19  
KiCad E.D.A. eeschema 5.1.9+dfsg1-1bpo10+1

**Rev: 003**  
Id: 3/16

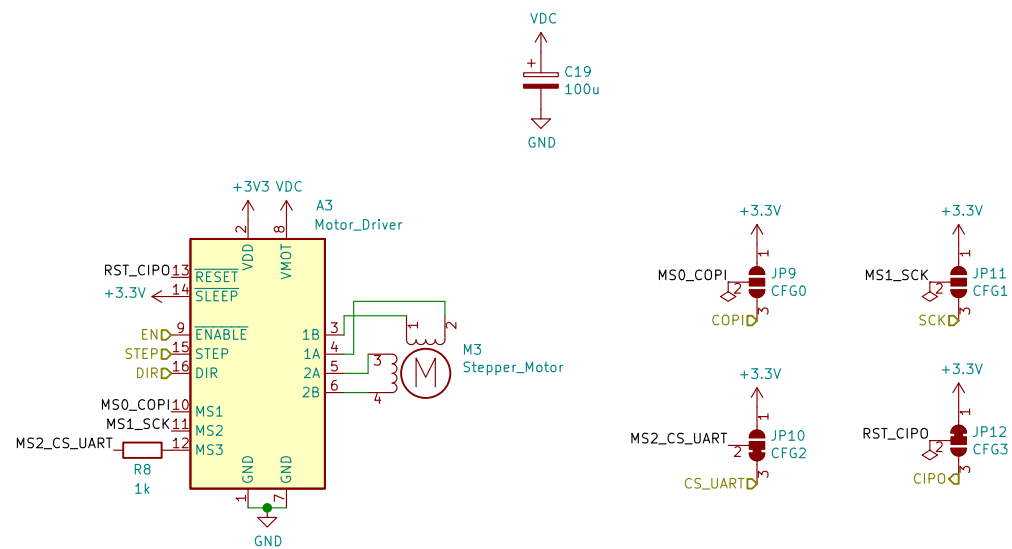


Sheet: /motor\_control/Motor Z/  
File: motor.sch

# **Title: Motor**

Size: A4 Date: 2021-02-19  
KiCad E.D.A. eeschema 5.1.9+dfsg1-1bpo10+1

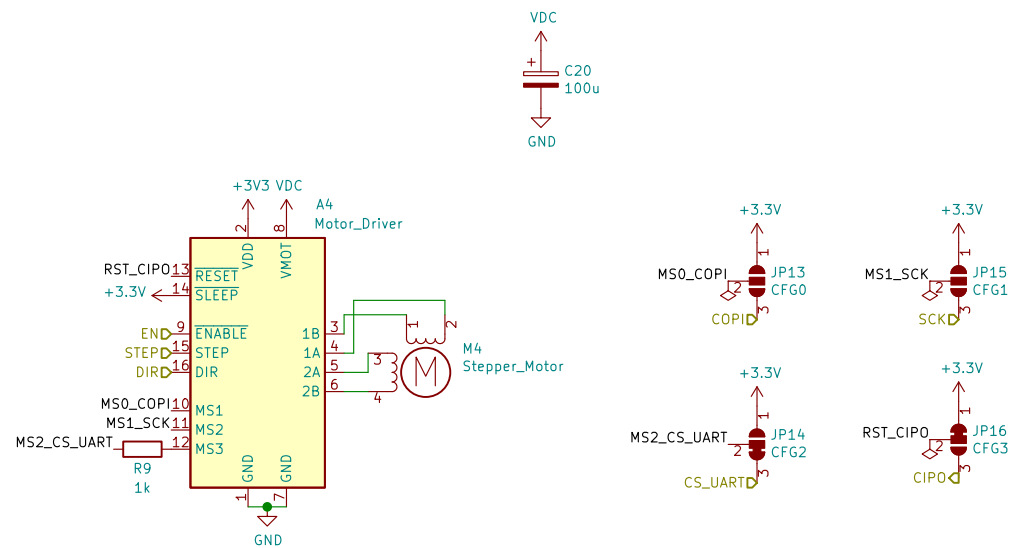
Rev: 003  
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Sheet: /motor\_control/Motor Left/  
File: motor.sch

**Title: Motor**

Size: A4	Date: 2021-02-19	Rev: 003
KiCad E.D.A. eeschema 5.1.9+dfsg1-1bpo10+1		Id: 5/16

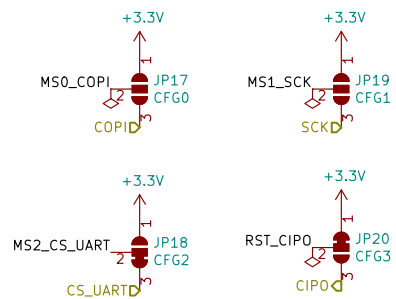
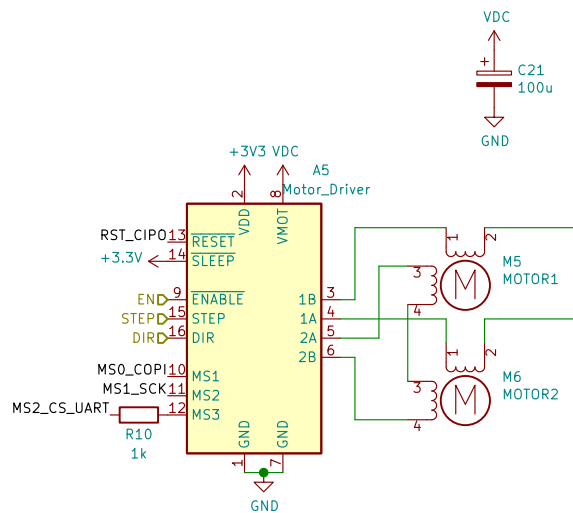


Sheet: /motor\_control/Motor Right/  
File: motor.sch

# **Title: Motor**

Size: A4 Date: 2021-02-19  
KiCad E.D.A. eeschema 5.1.9+dfsg1-1bpo10+1

**Rev: 003**  
Id: 6/16



Sheet: /motor\_control/Motor AUX/  
 File: dual\_motors.sch

**Title:**

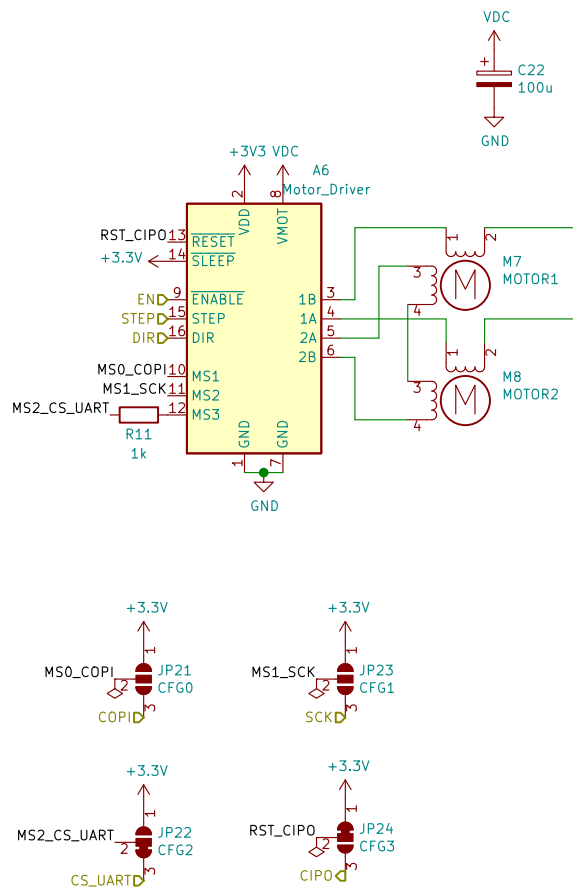
Size: A4

Date:

KiCad E.D.A. eeschema 5.1.9+dfsg1-1bpo10+1

**Rev:**

Id: 7/16



Sheet: /motor\_control/Motor Y/  
File: dual\_motors.sch

**Title:**

Size: A4

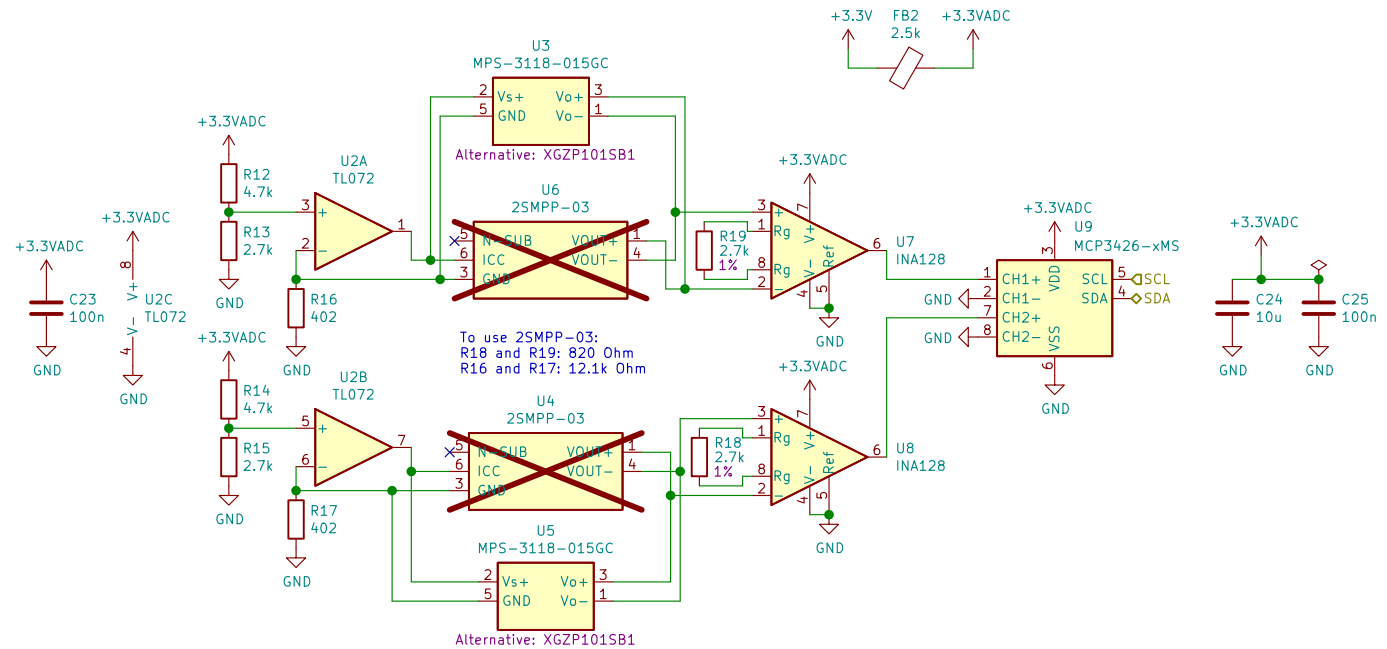
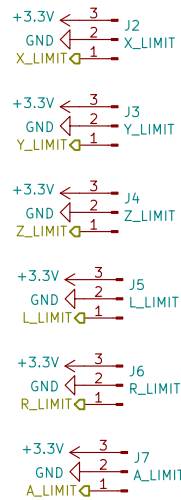
Date:

KiCad E.D.A. eeschema 5.1.9+dfsg1-1bpo10+1

**Rev:**

Id: 8/16



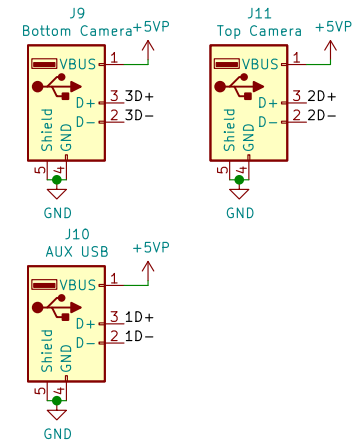
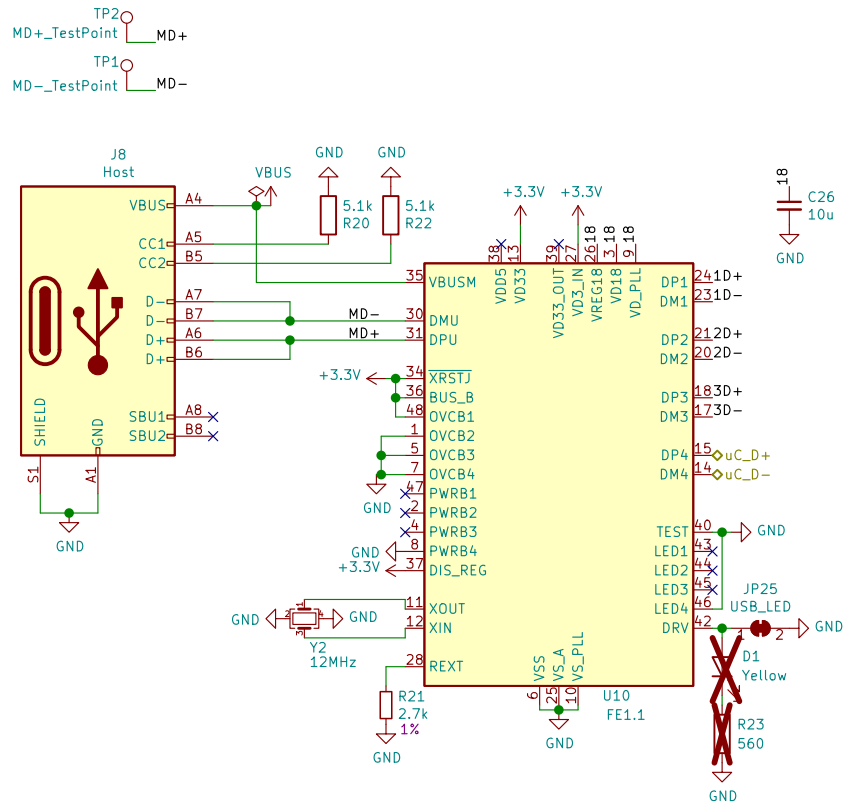


Sheet: /misc\_input/  
 File: misc\_input.sch

**Title: Index Mobo**

Size: A4  
 Date: 2021-02-19  
 KiCad E.D.A. eeschema 5.1.9+dfsg1-1bpo10+1

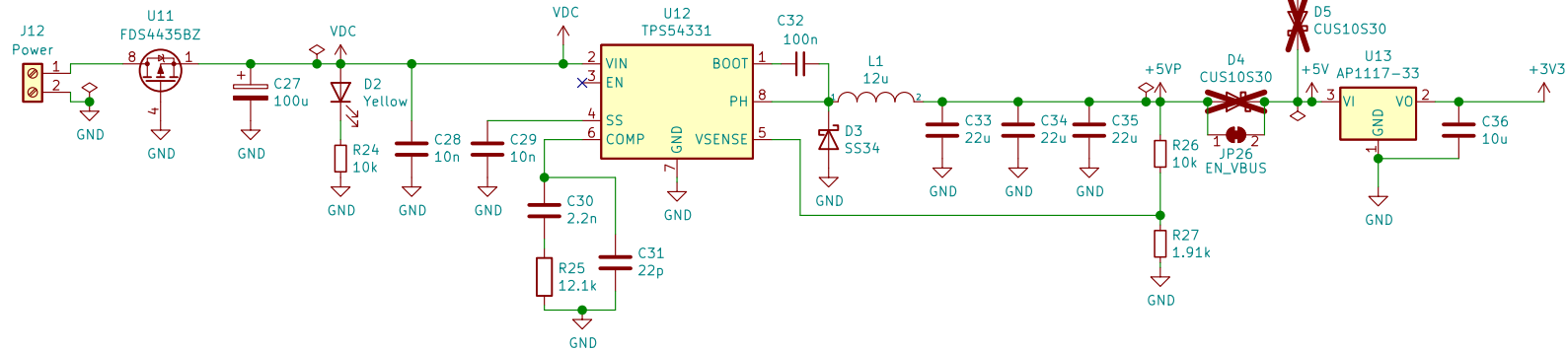
Rev: 003  
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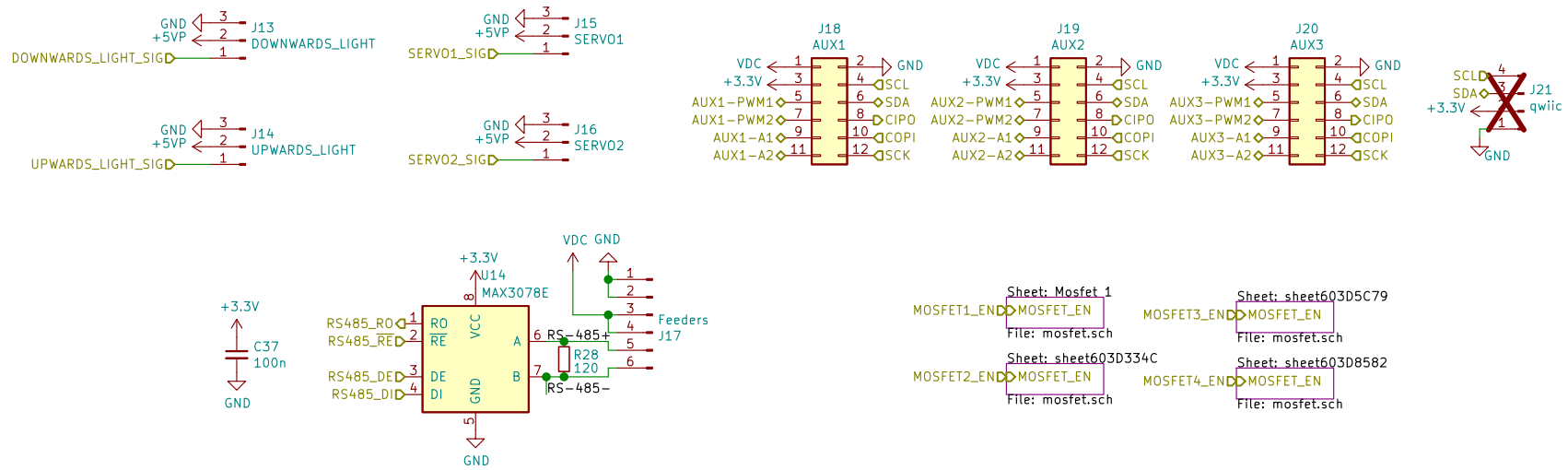
Sheet: /usb/  
File: usb.sch

# Title: Index Mobo

Size: A4	Date: 2021-02-19	Rev: 003
KiCad E.D.A. eeschema 5.1.9+dfsg1-1bpo10+1		Id: 10/16



Sheet: /power/ File: power.sch	
<b>Title: Power</b>	
Size: A4	Date: 2021-02-19
KiCad E.D.A. eeschema 5.1.9+dfsg1-1bpo10+1	Rev: 003 Id: 11/16



Sheet: /misc\_output/  
File: misc\_output.sch

### Title: Output

Size: A4	Date: 2021-02-19	Rev: 003
KiCad E.D.A. eeschema 5.1.9+dfsg1-1bpo10+1		Id: 12/16



Sheet: /misc_output/Mosfet 1/ File: mosfet.sch		
Title: Mosfet		
Size: A4	Date: 2021-02-19	Rev: 003
KiCad E.D.A. eeschema 5.1.9+dfsg1-1bpo10+1		Id: 13/16

