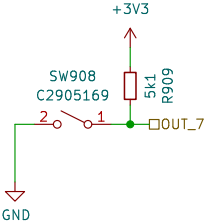
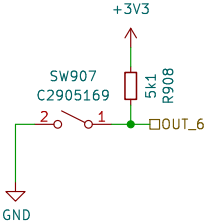
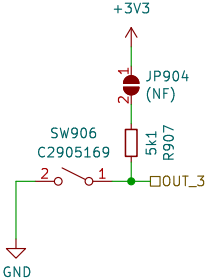
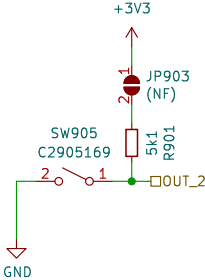
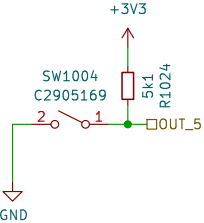
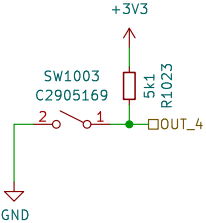
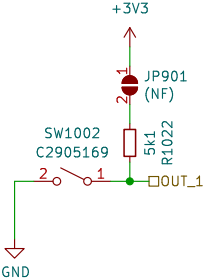
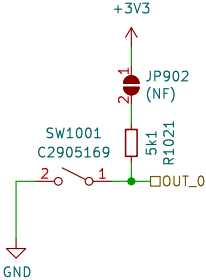
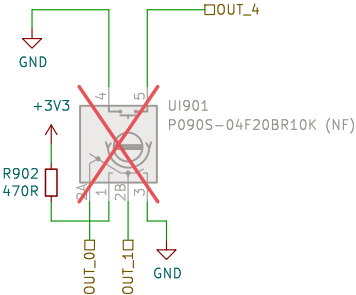


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Size: A4

Date:

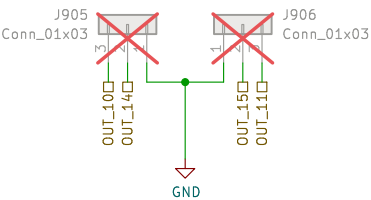
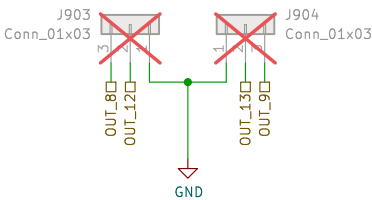
KiCad E.D.A. 8.0.4

Rev:

Id: 2/11

1000

Simulation:
<http://tinyurl.com/y229mty4>



Sheet: /UI_BUTTON/
File: UI_BUTTON.kicad_sch

Title:

Size: A4

Date:

KiCad E.D.A. 8.0.4

Rev:

Id: 3/11

900



Sheet: /UI_LED/
File: UI_LED.kicad_sch

Title:

Size: A4
KiCad E.D.A. 8.0.4

Date:

Rev:
Id: 4/11

1000



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700



500

GRID Connector
Bi-Directional Data
2x SYNC

Board Mounting Pattern



Sheet: /MCU/sheet5D85C9EA/ File: GRID.kicad_sch		
Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. 8.0.4	Id: 8/11	

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ESD Diodes

ESD protection for all of the externally accessible nets.

TP601 GND

TP602 VB

TP603 D-

TP604 D+

VBUS

USB_DATA_N

USB_DATA_P

USB_DATA_N

VBUS

VBUS

PWR_FLAG

VBUS

J601 TYPE-C-32-M-12

VBUS

VBUS

CC1

CC2

D-

D-

D+

D+

SBU1

SBU2

SHIELD

SHIELD

SHIELD

GND

GND

A9B4

A4B9

A5

B5

A7

B7

A6

B6

A8

BB

A1B12

A12B1

PWR_FLAG

GND

GND

5k1

5k1

R601

R602

C603 4n7

R603 1M

GND

GND

+3V3 LDO Regulators

Regulators for generating independent power rails for the microcontroller and the user interface.

VBUS +5V

GZ2012D601TF L601

PWR_FLAG

C601 1u

U602 LN1134A332MR-G

IN

EN

OUT

NC

GND

GND

1u

C602

TP605

+3V3

UI

GND

GND

GND

Sheet: /MCU/Sheet60F06FE1/
File: USB_POWER.kicad_sch

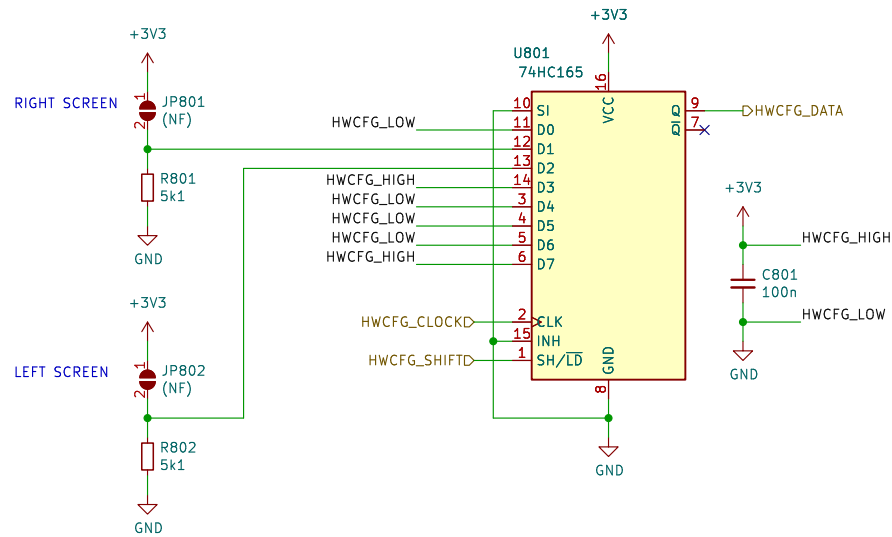
Title:

Size: A4 Date: Rev:

KiCad E.D.A. 8.0.4 Id: 9/11

Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. 8.0.4		Id: 9/11

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Board Identification

Grid firmware can identify the hardware and the board revision through a 3 wire serial interface using one or more shift register as read only memory. The content of the memory is defined by pulling the inputs high or low through pcb traces or solderable configuration jumpers.

4b'Model + 4b'Revision + nb'Reserved (Multiple shift registers)

D0: MODEL (LSB)
D1: MODEL
D2: MODEL
D3: MODEL (MSB)
D4: REVISION (LSB)
D5: REVISION
D6: REVISION
D7: REVISION (MSB)

Model Codes (D3–D0):

Po16 0000
Bo16 0001
PBF4 0010
EN16 0011
...

Revision Codes (D7–D4):

RevA 0000
RevB 0001
RevC 0010
RevD 0011
...

Sheet: /HWCFG/
File: HWCFG.kicad_sch

Title:

Size: A4

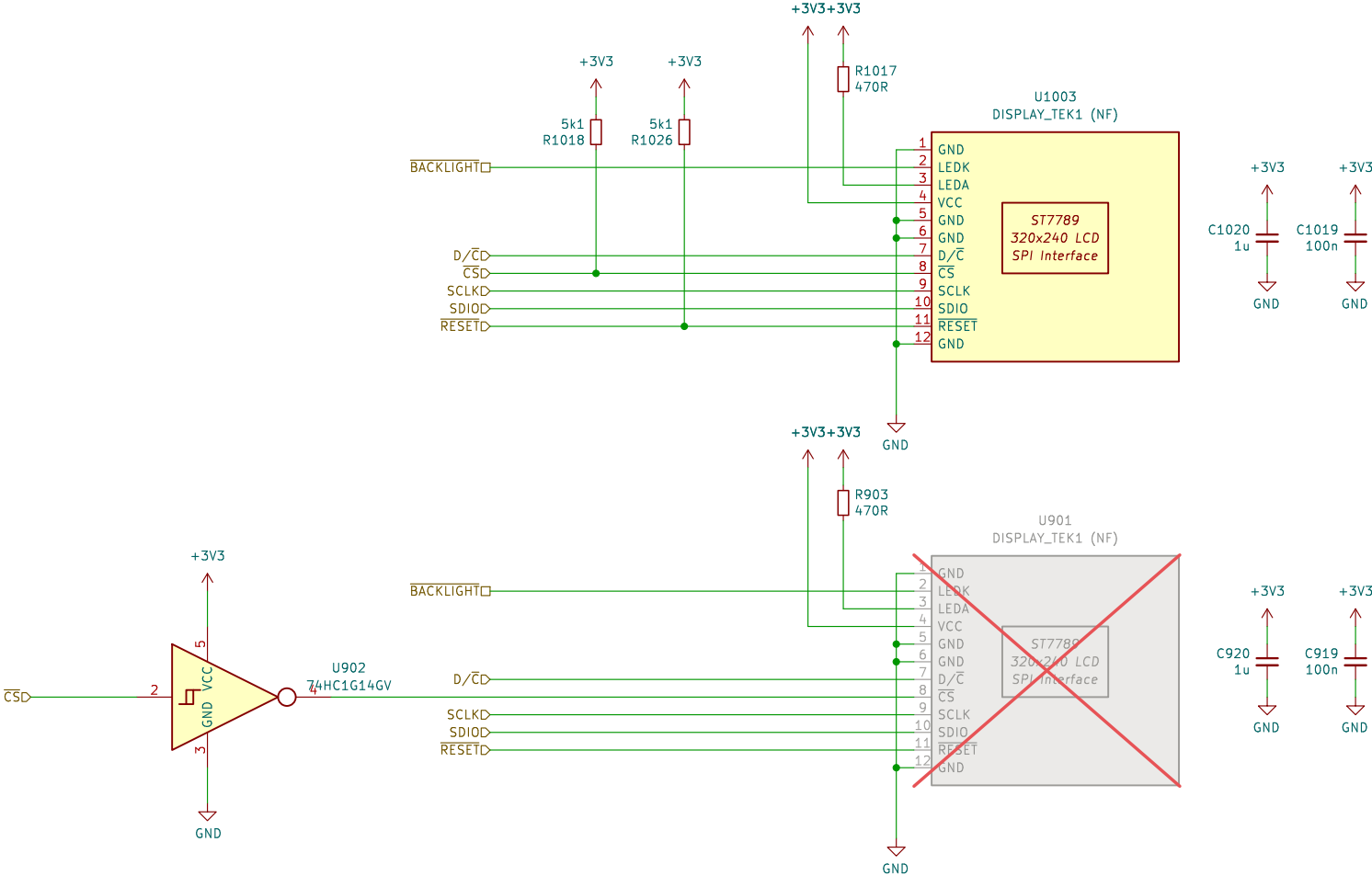
Date:

KiCad E.D.A. 8.0.4

Rev:

Id: 10/11

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Sheet: /UI_DISPLAY/		
File: UI_DISPLAY.kicad_sch		
Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. 8.0.4		Id: 11/11