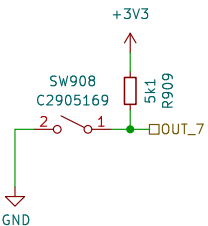
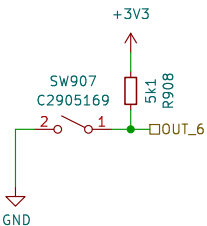
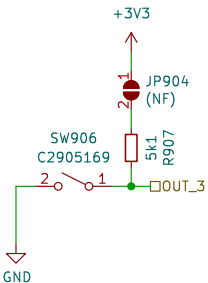
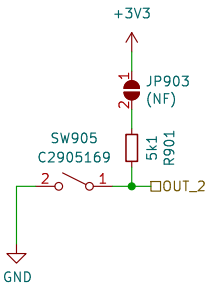
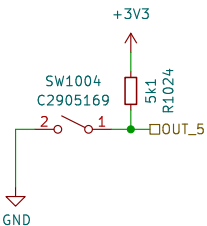
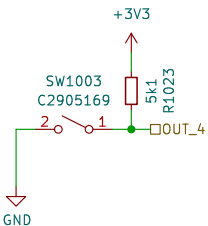
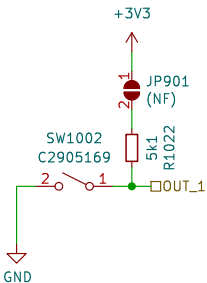
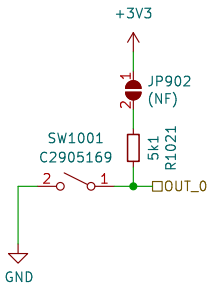


1000



Sheet: /UI_POT_BTN/
File: UI_POT_BTN.kicad_sch

Title:

Size: A4

Date:

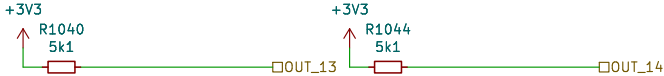
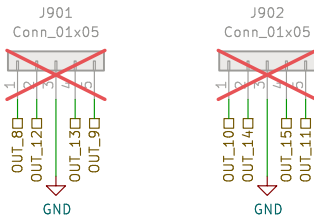
KiCad E.D.A. 8.0.3

Rev:

Id: 2/11

1000

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



Sheet: /UI_BUTTON/ File: UI_BUTTON.kicad_sch		
Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. 8.0.3	Id: 3/11	

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Sheet: /UI_LED/
File: UI_LED.kicad_sch

Title:

Size: A4

Date:

KiCad E.D.A. 8.0.3

Rev:

Id: 4/11

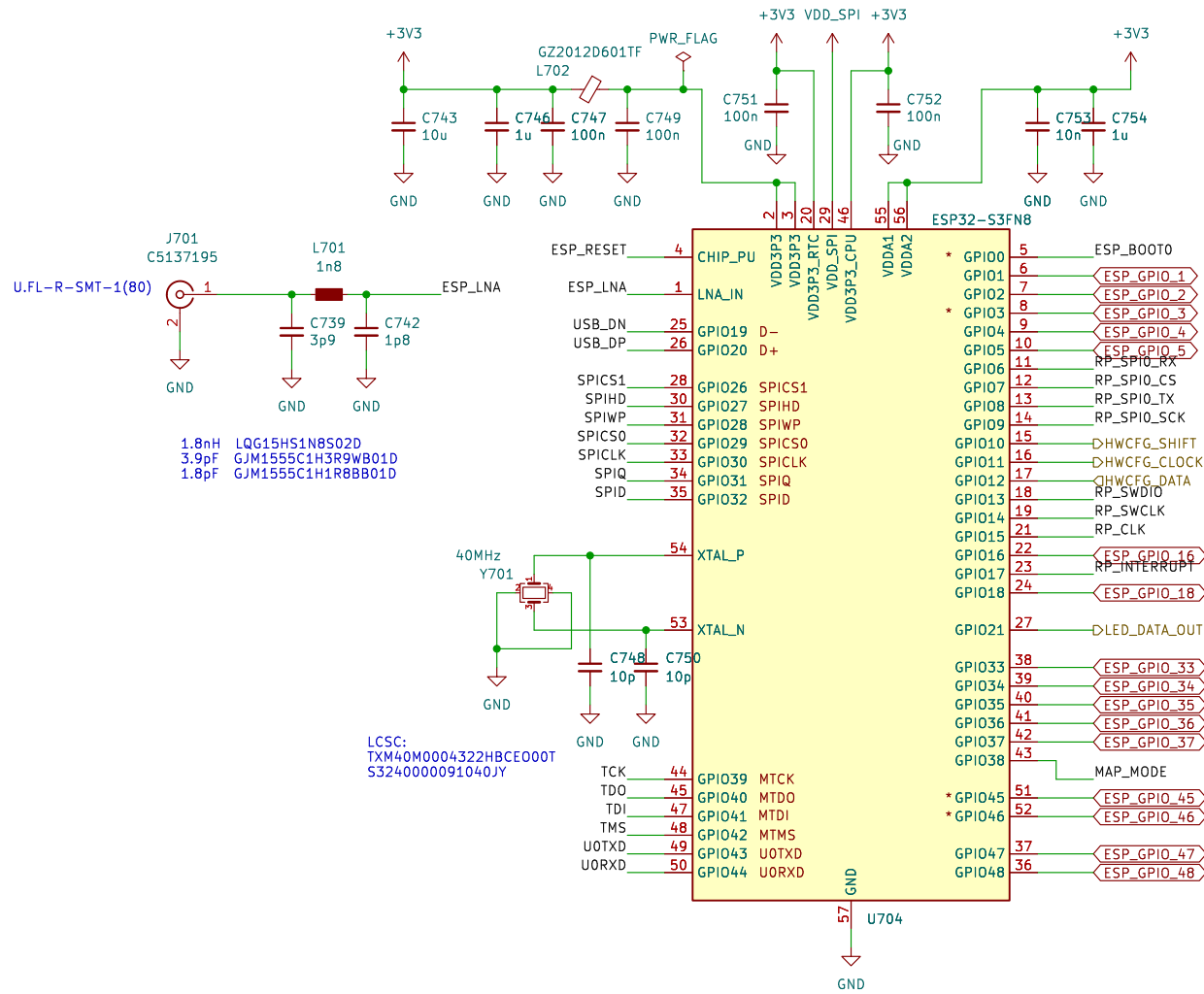
1000



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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. 8.0.3		Id: 8/11

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ESD Diodes
ESD protection for all of the externally accessible nets.

VBUS
USB_DATA_N
GND
USB_DATA_P
GND
TP601 GND
TP602 VB
TP603 D-
TP604 D+
USB_DATA_P
USB_DATA_N

+3V3 LDO Regulators
Regulators for generating independent power rails for the microcontroller and the user interface.

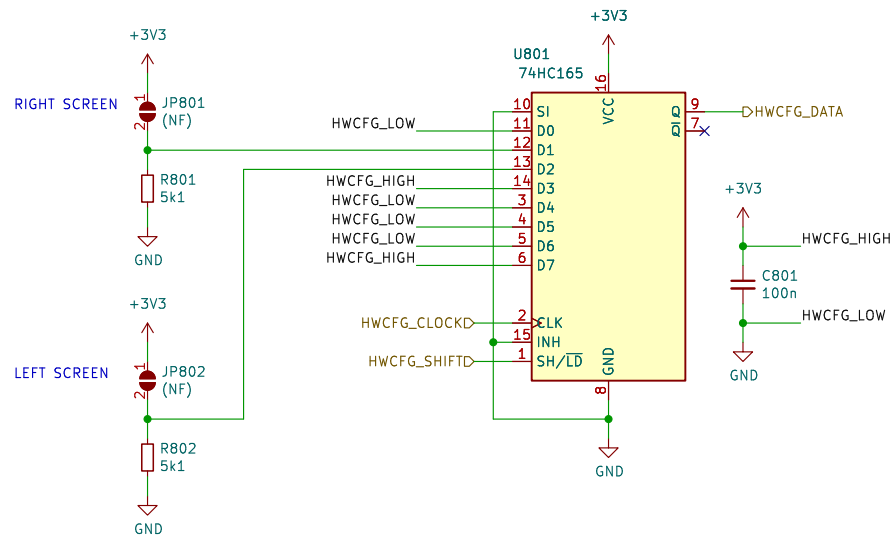
VBUS +5V
PWR_FLAG
+3V3
GZ2012D601TF L601
C601 1u
U602 LN1134A332MR-G
IN EN NC OUT
GND
C602 1u
UI
TP605

J601 TYPE-C-32-M-12
VBUS
CC1
CC2
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
GND
GND
R601 5k1
R602 5k1
C603 4n7
R603 1M

Sheet: /MCU/Sheet60F06FE1/ File: USB_POWER.kicad_sch		
Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. 8.0.3		Id: 9/11

Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. 8.0.3		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. 8.0.3

Rev:

Id: 10/11

1000

U1003
DISPLAY_TEK1 (NF)

ST7789
320x240 LCD
SPI Interface

1 GND
2 LEDK
3 LEDA
4 VCC
5 GND
6 D/Ĉ
7 CS
8 SCLK
9 SDIO
10 RESET
11 GND
12

+3V3
+3V3
+3V3+3V3

5k1 R1018 5k1 R1026

BACKLIGHT

D/Ĉ
CS
SCLK
SDIO
RESET

R1017 470R

+3V3
+3V3

C1020 1u C1019 100n

GND GND

U901
DISPLAY_TEK1 (NF)

ST7789
320x240 LCD
SPI Interface

1 GND
2 LEDK
3 LEDA
4 VCC
5 GND
6 D/Ĉ
7 CS
8 SCLK
9 SDIO
10 RESET
11 GND
12

+3V3
+3V3
+3V3+3V3

BACKLIGHT

D/Ĉ
CS
SCLK
SDIO
RESET

R903 470R

+3V3
+3V3

C920 1u C919 100n

GND GND

U902
74HC1G14GV

2 3

+3V3
GND

Sheet: /UI_DISPLAY/
File: UI_DISPLAY.kicad_sch

Title:

Size: A4 Date: Rev:

KiCad E.D.A. 8.0.3 Id: 11/11