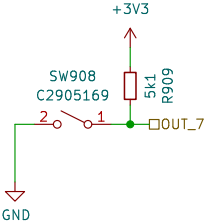
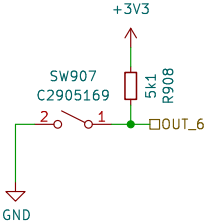
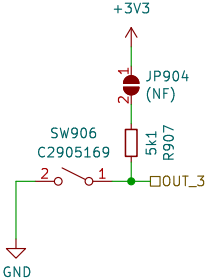
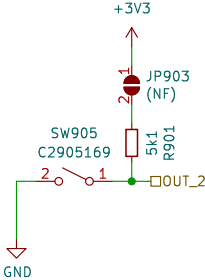
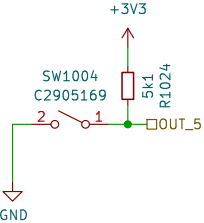
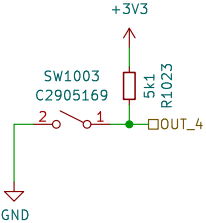
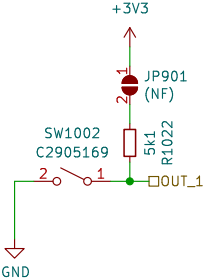
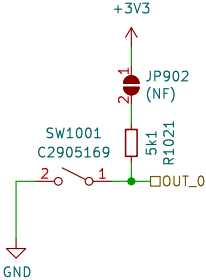
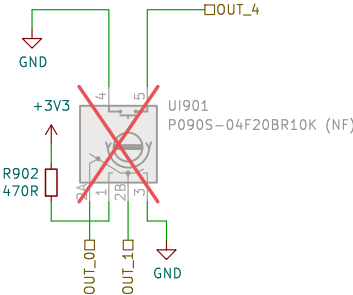


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Sheet: /UI\_POT\_BTN/  
File: UI\_POT\_BTN.kicad\_sch

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Simulation:  
<http://tinyurl.com/y229mt4>



Sheet: /UI_BUTTON/ File: UI_BUTTON.kicad_sch		
Title:		
Size: A4	Date:	Rev:
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Sheet: /UI\_LED/  
File: UI\_LED.kicad\_sch

**Title:**

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**Rev:**

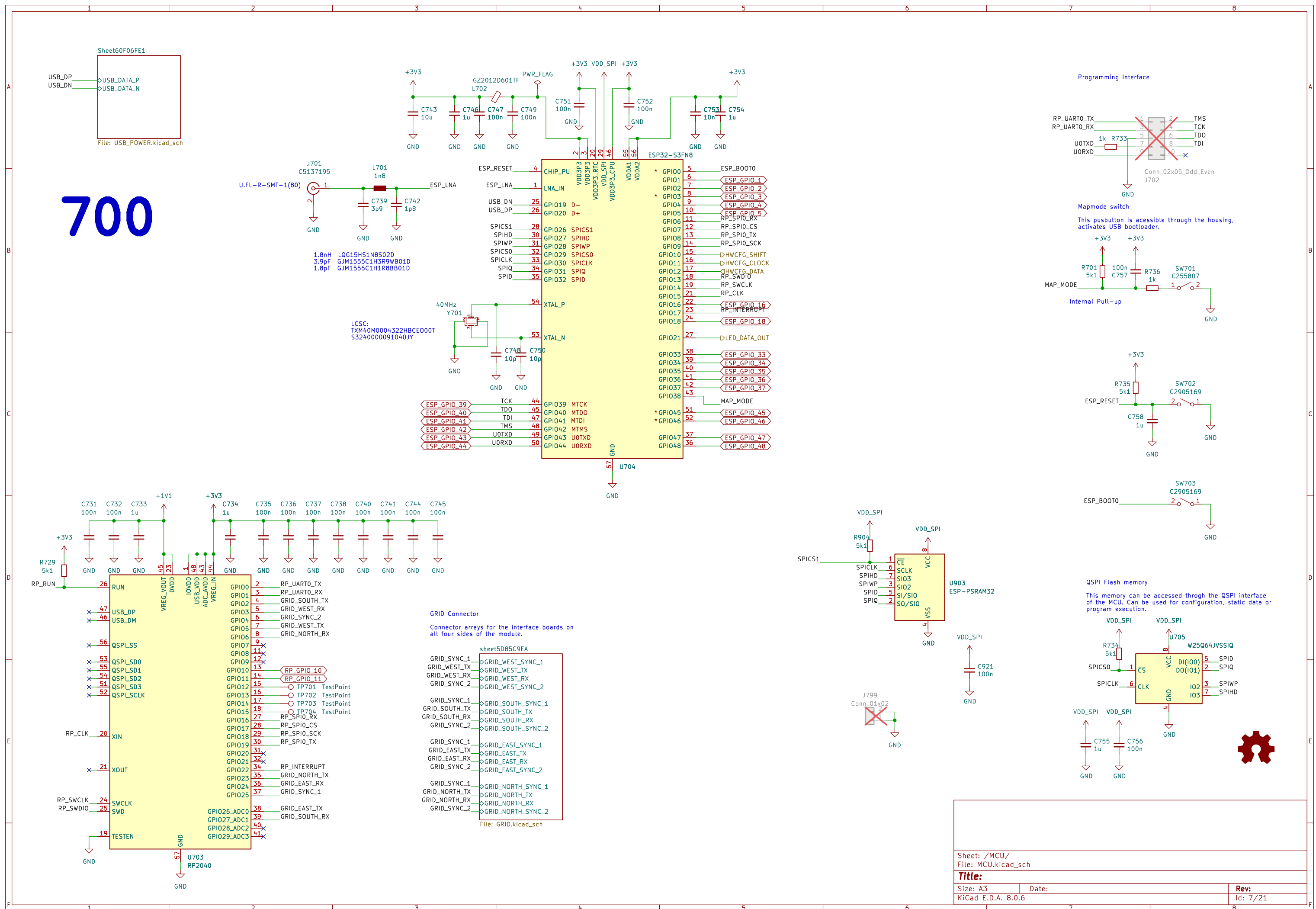
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500

GRID Connector  
Bi-Directional Data  
2x SYNC

Board Mounting Pattern



Sheet: /MCU/sheet5D85C9EA/ File: GRID.kicad_sch		
<b>Title:</b>		
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**600**

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

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

**Components and Connections:**

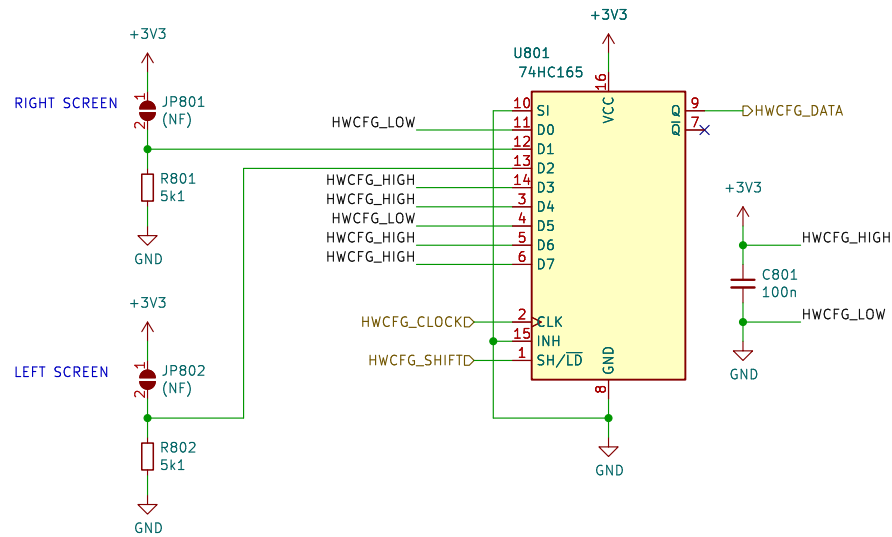
- J601 TYPE-C-32-M-12:** USB Type-C connector. Pins A9B4, A4B9, A5, B5, A7, B7, A6, B6, A8, B8, A1B12, A12B1, S1, S2, S3, S4, and SHIELD are shown. Connections include VBUS, PWR\_FLAG, USB\_DATA\_N, USB\_DATA\_P, GND, and SHIELD.
- U601 C5451661:** ESD protection diodes for USB\_DATA\_N, USB\_DATA\_P, and GND.
- TP601 GND, TP602 VB, TP603 D-, TP604 D+:** Test points for USB signals.
- U602 LN1134A332MR-G:** +3V3 LDO regulator. Input is VBUS +5V, output is +3V3. Pins 1 (IN), 3 (EN), 4 (NC), and 5 (OUT) are shown. Capacitors C601 (1u) and C602 (1u) are connected to the input and output respectively. Pin 2 is connected to GND.
- Passive Components:** R601 (5k1), R602 (5k1), R603 (1M), C603 (4n7), and UI (TP605) are shown.

**Sheet: /MCU/Sheet60F06FE1/  
File: USB\_POWER.kicad\_sch**

Title:	
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<b>Title:</b>		
Size: A4	Date:	<b>Rev:</b>
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# 800



## 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:

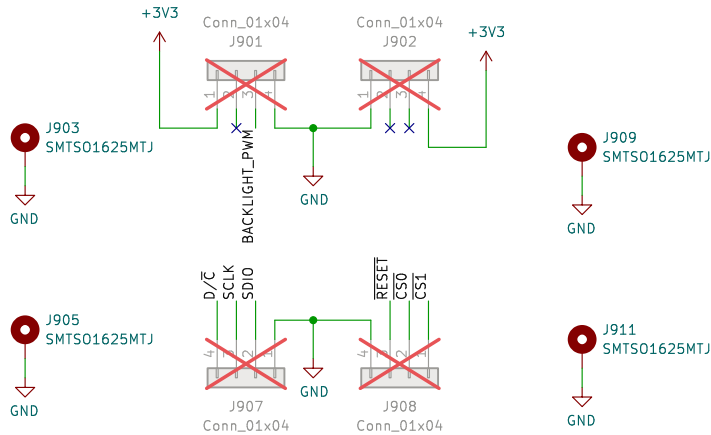
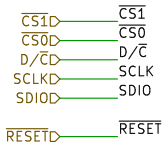
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BACKLIGHT $\square$  BACKLIGHT\_PWM



Sheet: /UI\_DISPLAY/  
File: UI\_DISPLAY.kicad\_sch

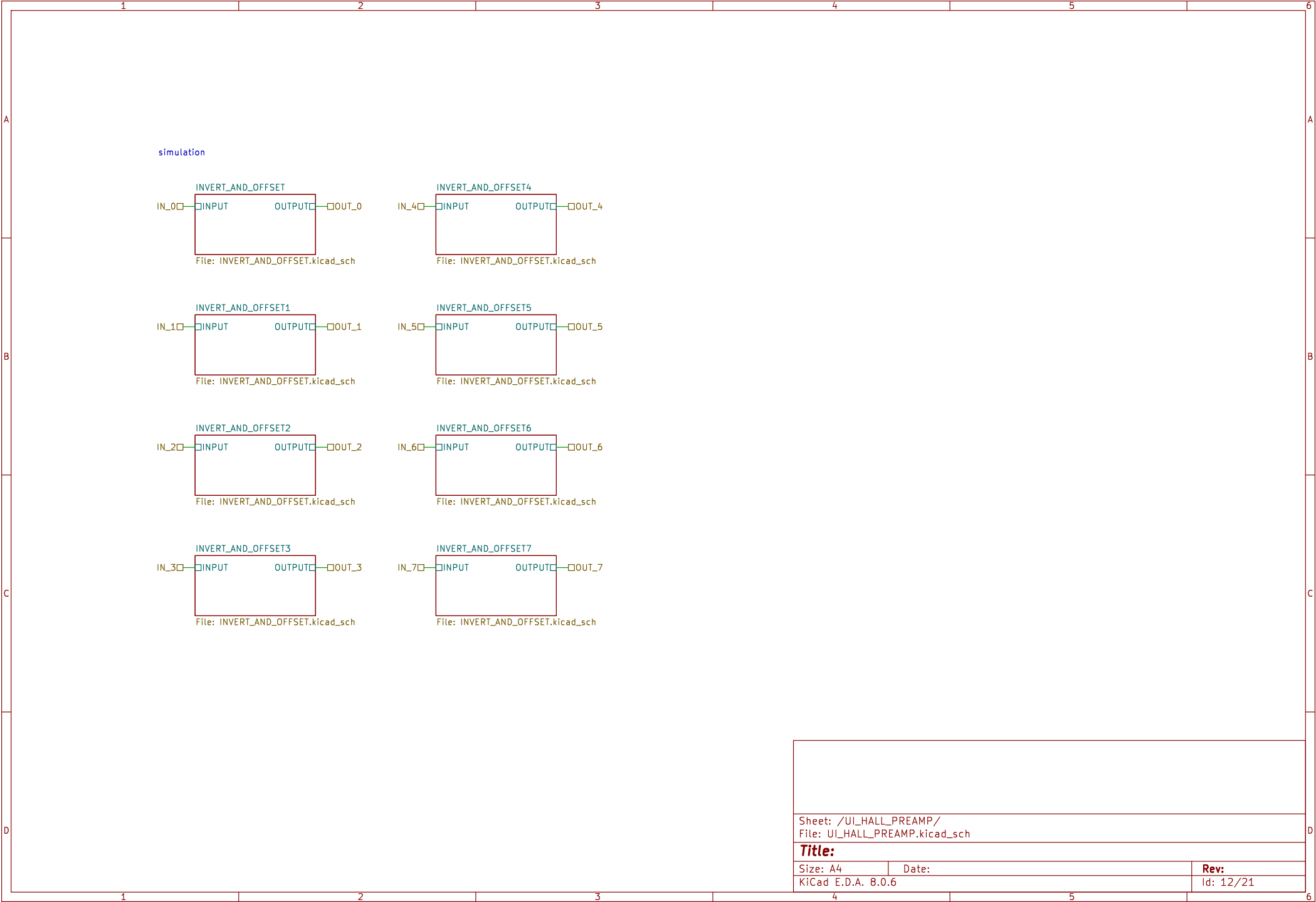
Title:

Size: A4 Date:

KiCad E.D.A. 8.0.6

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Sheet: /UI\_HALL\_PREAMP/INVERT\_AND\_OFFSET/  
File: INVERT\_AND\_OFFSET.kicad\_sch

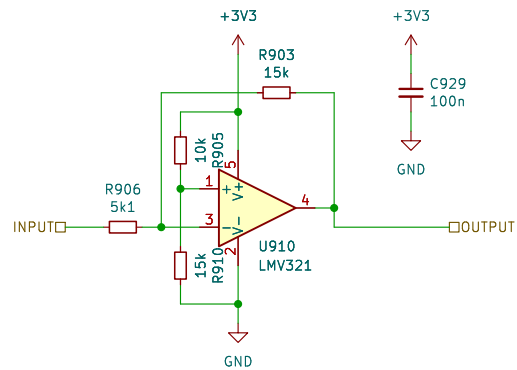
**Title:**

Size: A4  
KiCad E.D.A. 8.0.6

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**Rev:**

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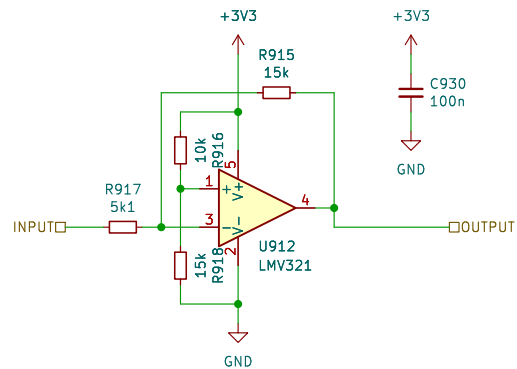
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File: INVERT\_AND\_OFFSET.kicad\_sch

**Title:**

Size: A4  
KiCad E.D.A. 8.0.6

Date:

Rev:  
Id: 14/21



Sheet: /UI\_HALL\_PREAMP/INVERT\_AND\_OFFSET2/  
File: INVERT\_AND\_OFFSET.kicad\_sch

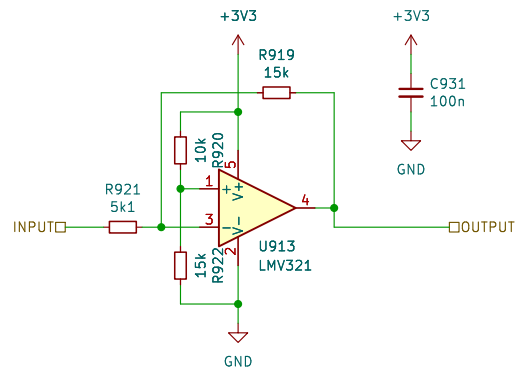
**Title:**

Size: A4  
KiCad E.D.A. 8.0.6

Date:

**Rev:**

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Sheet: /UI\_HALL\_PREAMP/INVERT\_AND\_OFFSET3/  
File: INVERT\_AND\_OFFSET.kicad\_sch

**Title:**

Size: A4

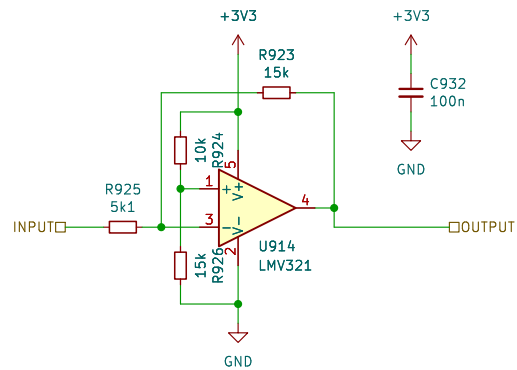
Date:

Rev:

KiCad E.D.A. 8.0.6

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Sheet: /UI\_HALL\_PREAMP/INVERT\_AND\_OFFSET4/  
File: INVERT\_AND\_OFFSET.kicad\_sch

**Title:**

Size: A4

Date:

**Rev:**

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Sheet: /UI\_HALL\_PREAMP/INVERT\_AND\_OFFSET5/  
File: INVERT\_AND\_OFFSET.kicad\_sch

**Title:**

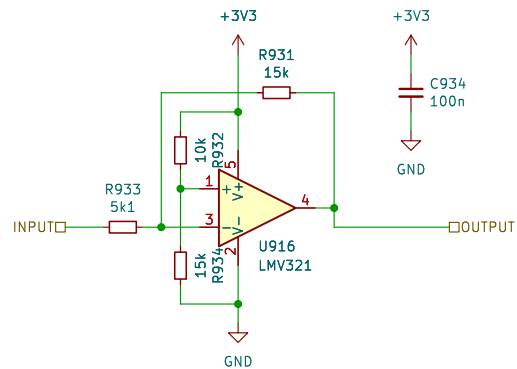
Size: A4

Date:

Rev:

KiCad E.D.A. 8.0.6

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Sheet: /UI\_HALL\_PREAMP/INVERT\_AND\_OFFSET6/  
File: INVERT\_AND\_OFFSET.kicad\_sch

**Title:**

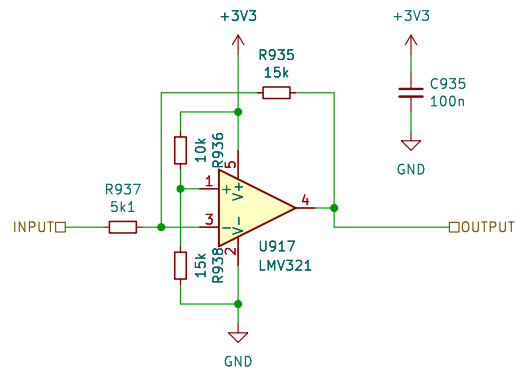
Size: A4

Date:

**Rev:**

KiCad E.D.A. 8.0.6

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Sheet: /UI\_HALL\_PREAMP/INVERT\_AND\_OFFSET7/  
File: INVERT\_AND\_OFFSET.kicad\_sch

**Title:**

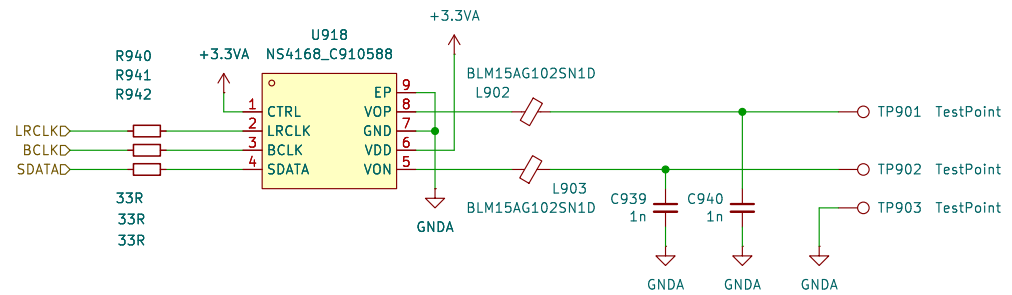
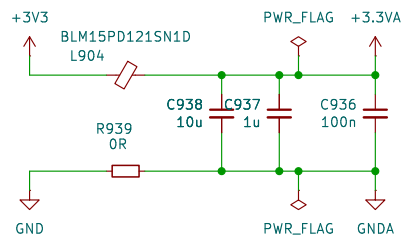
Size: A4

Date:

Rev:

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Sheet: /AUDIO/  
File: AUDIO.kicad\_sch

**Title:**

Size: A4  
KiCad E.D.A. 8.0.6

Date:

**Rev:**  
Id: 21/21