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

**Title:**

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KiCad E.D.A. 8.0.3

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



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

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

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500

GRID Connector  
Bi-Directional Data  
2x SYNC

Board Mounting Pattern



Sheet: /MCU/sheet5D85C9EA/ File: GRID.kicad_sch		
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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 with pins A9B4, A4B9, A5, B5, A7, B7, A6, B6, A8, B8, A1B12, A12B1, and shields S1, S2, S3, S4.
- U601 C5451661:** ESD diode for USB data lines.
- TP601 GND, TP602 VB, TP603 D-, TP604 D+:** Test points for USB data lines.
- U602 LN1134A332MR-G:** LDO regulator for +3V3 output.
- Capacitors:** C601 (1u), C602 (1u), C603 (4n7), GZ2012D601TF L601.
- Resistors:** R601 (5k1), R602 (5k1), R603 (1M).
- Other:** PWR\_FLAG, VBUS, USB\_DATA\_N, USB\_DATA\_P, GND, +3V3, UI.

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

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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:

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