ESP32 SYNTH

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MOUNTING HOLES

H105 H106 H107 H108

Joël Ucedo

Sheet: /
File: ESP32 synth.kicad_sch

Title: ESP32 SYNTH

Size: A3	Date: 2023-06-02	**Rev: 0**
KiCad E.D.A. kicad (6.0.7)		Id: 1/7

BLOCK DIAGRAM

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Sheet: /BLOCK DIAGRAM/
File: block_diagram.kicad_sch

Title: ESP32 SYNTH

Size: A3	Date: 2023-06-02	**Rev: 0**
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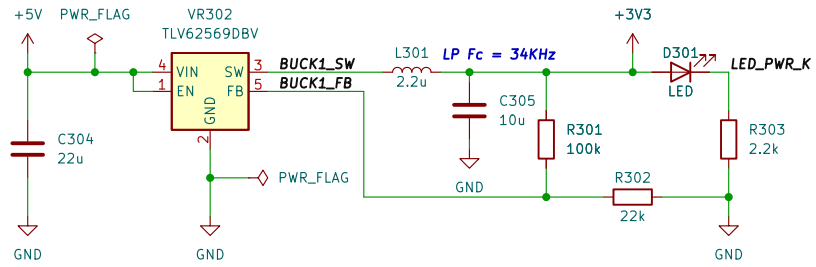
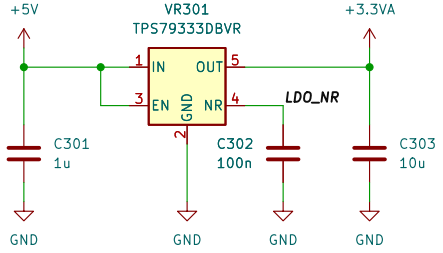
POWER

+5V > +3V3 DIGITAL



V(out) = 0.6*(1+100k/22k) =3.327V

+5V > +3V3 ANALOG



Only for analog audio circuit

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Sheet: /POWER/		
File: power.kicad_sch		
Title: ESP32 SYNTH		
Size: A4	Date: 2023-06-02	Rev: 0
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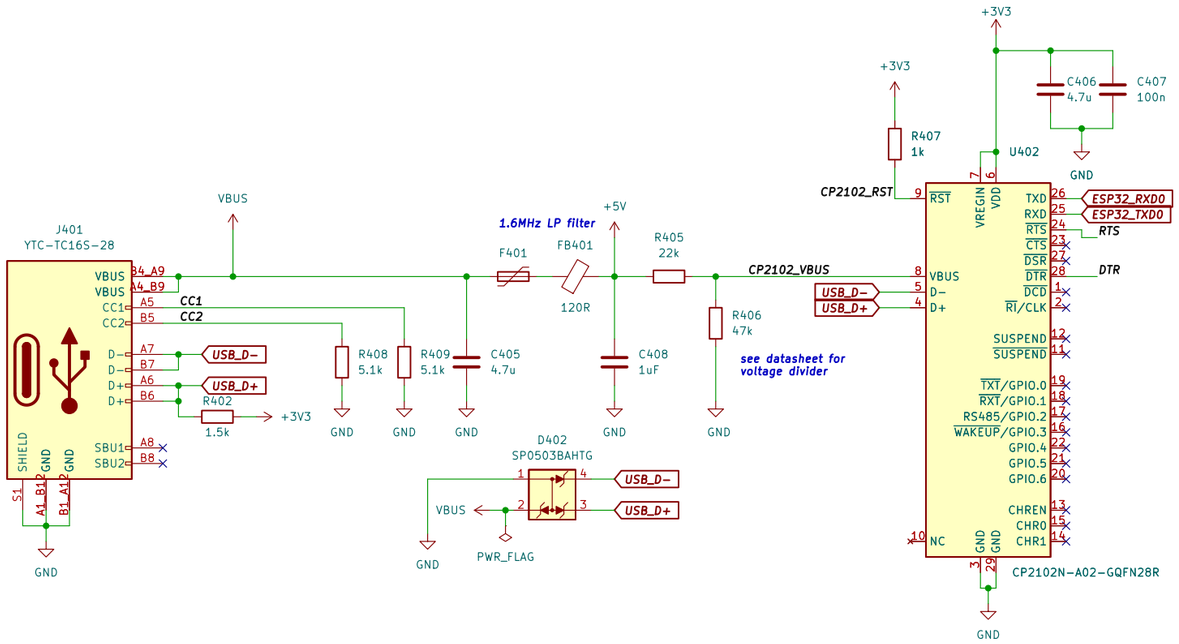
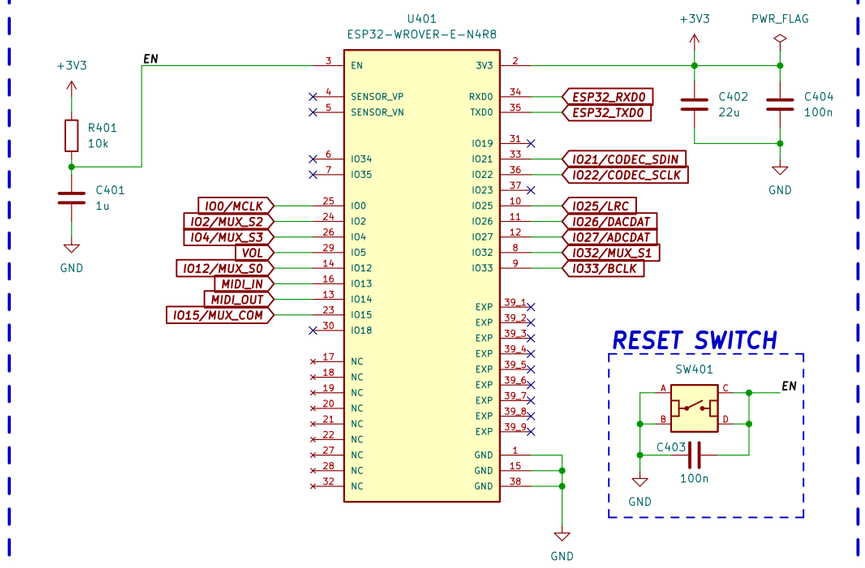
MCU – USB

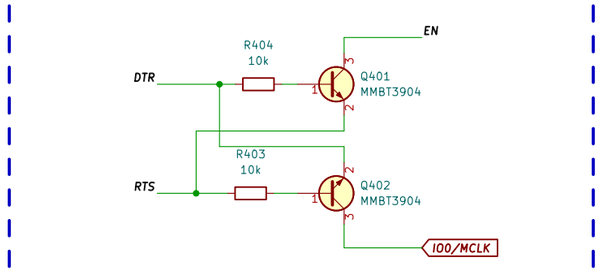
USB–C CIRCUIT & USB > UART CONVERTER



MCU



AUTO BOOT_PROGRAM



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Sheet: /MCU – USB/		
File: mcu_usb.kicad_sch		
Title: ESP32 SYNTH		
Size: A3	Date: 2023–06–02	**Rev: 0**
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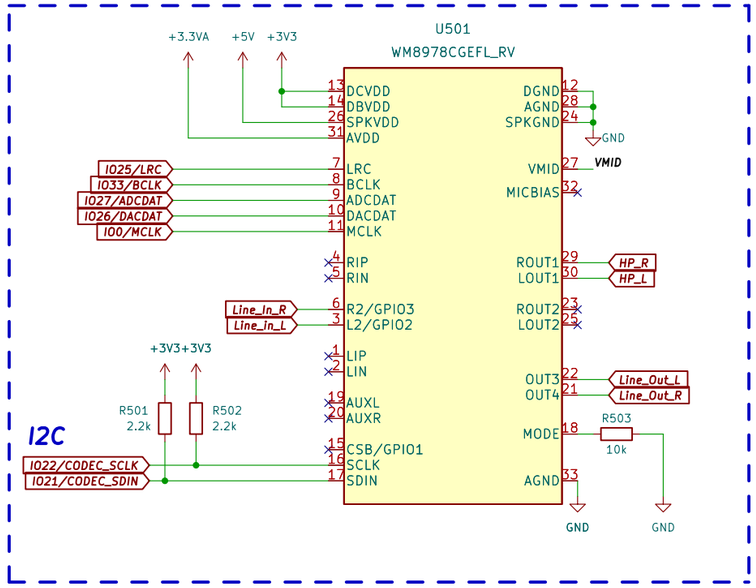
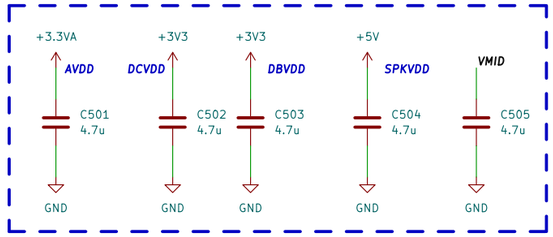
AUDIO

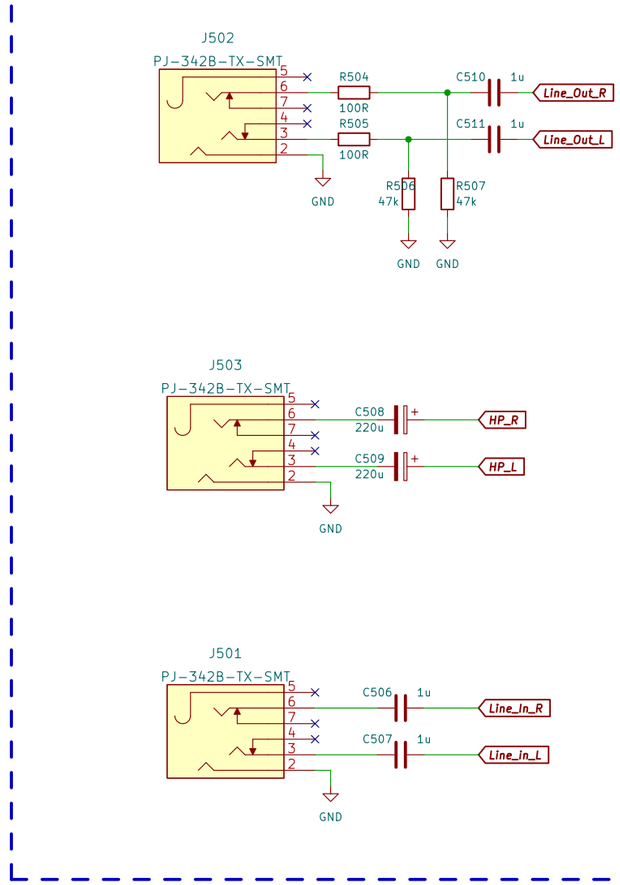
AUDIO CODEC



DECOUPLING



LINE IN/OUT & HEADPHONE



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Sheet: /AUDIO/		
File: audio.kicad_sch		
Title: ESP32 SYNTH		
Size: A3	Date: 2023-06-02	**Rev: 0**
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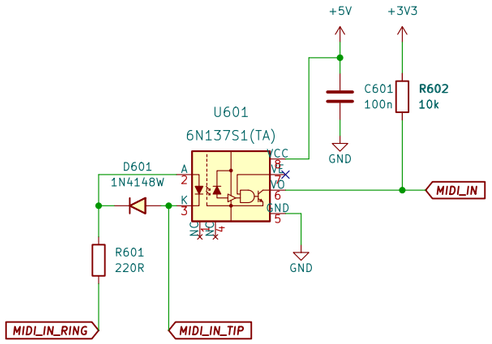
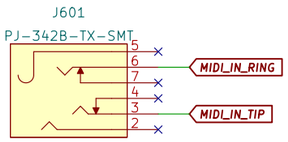
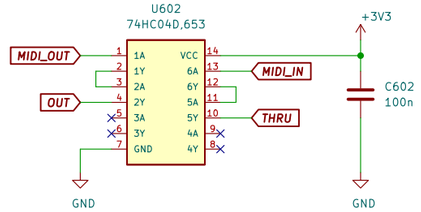
MIDI

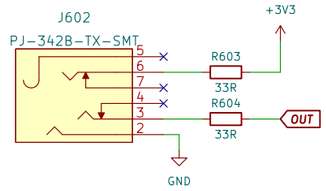
MIDI IN

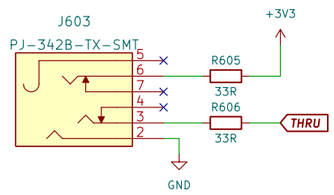




MIDI OUT & THRU







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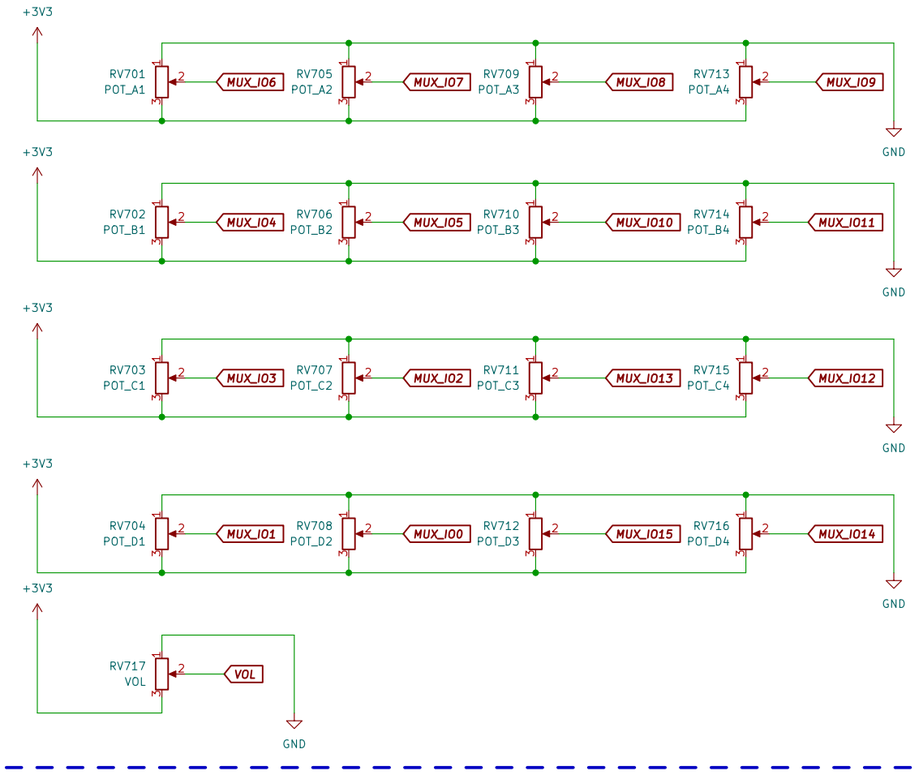
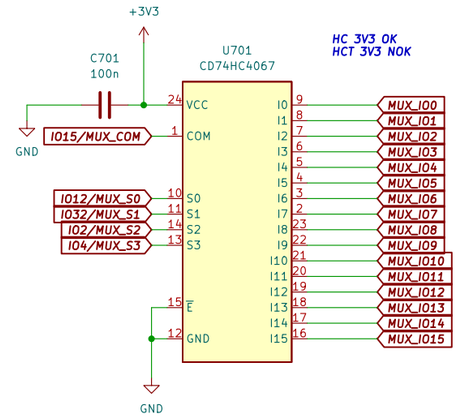
Sheet: /MIDI/		
File: midi.kicad_sch		
Title: ESP32 SYNTH		
Size: A3	Date: 2023-06-02	**Rev: 0**
KiCad E.D.A. kicad (6.0.7)		Id: 6/7

MUX - POTS

POTENTIOMETERS



MULTIPLEXER



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Sheet: /MUX - POTS/
File: mux_pots.kicad_sch

Title: ESP32 SYNTH

Size: A3	Date: 2023-06-02	**Rev: 0**
KiCad E.D.A. kicad (6.0.7)		Id: 7/7