

Sheet: /
File: PRODIGY-MOTHERBOARD.kicad_sch

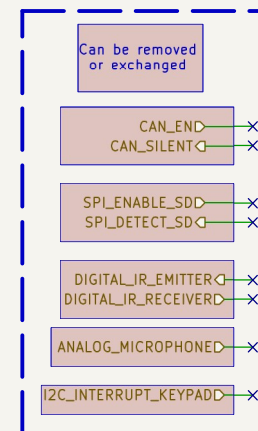
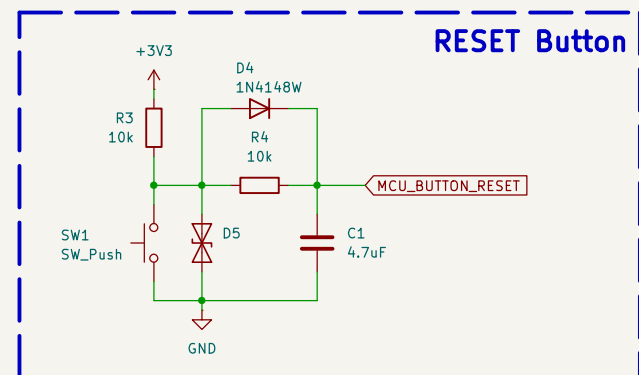
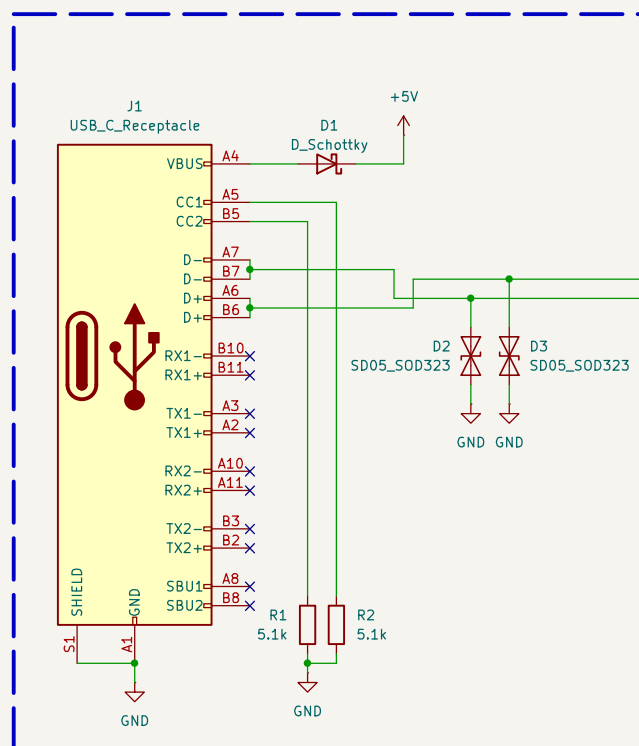
Title:

Size: A4
KiCad E.D.A. 8.0.2

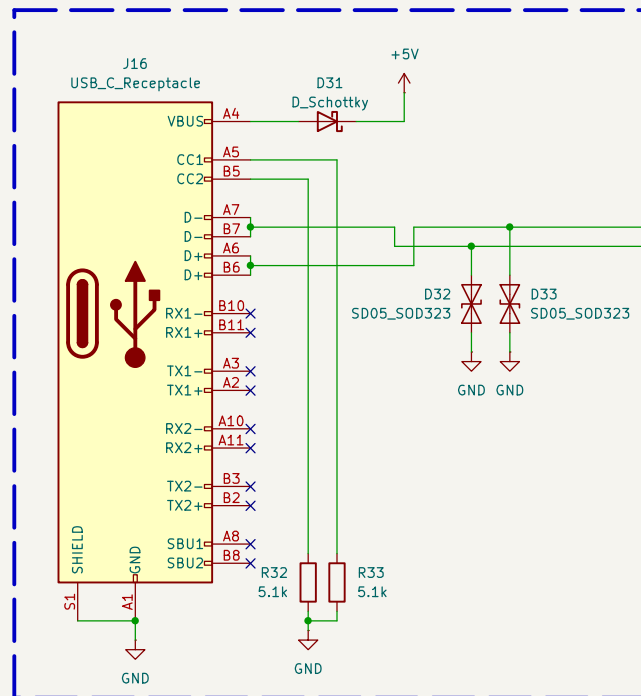
Date:

Rev:

Id: 1/18



Additionally an ESP enable or wakeup or interrupt pin could be useful

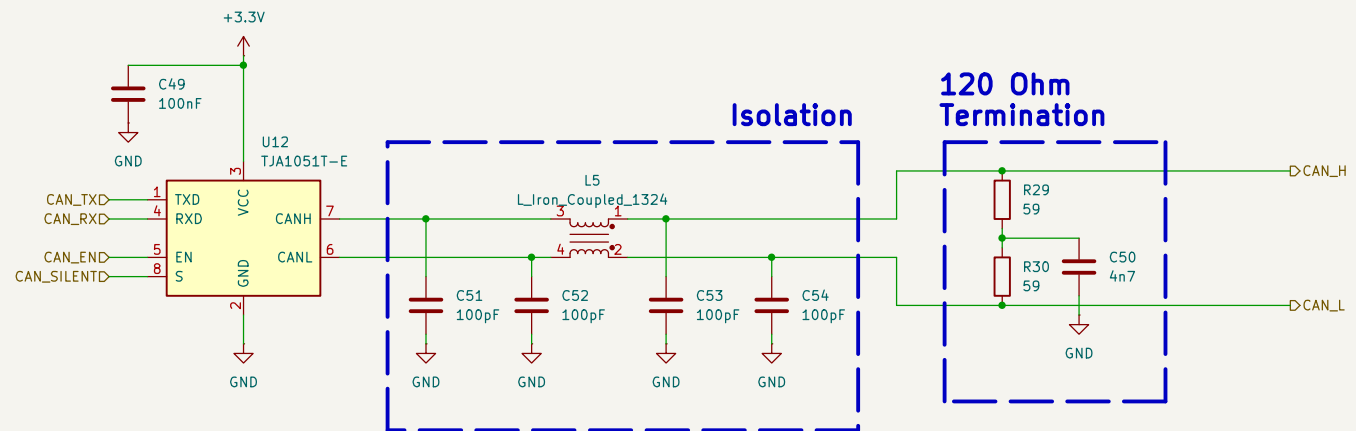


Sheet: /esp32/
File: esp32.kicad_sch

| | |
|--------------------|--|
| Size: A4 | |
| KiCad E.D.A. 8.0.2 | |

Date:

Rev:
Id: 4/18



Different IC can be chosen,
CAN_EN, CAN_SILENT not essential

Sheet: /CAN/
File: can.kicad_sch

Title:

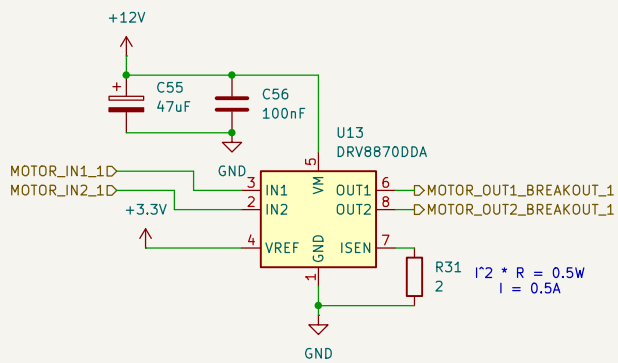
Size: A4

Date:

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Rev:

Id: 5/18



Sheet: /MOTOR/
File: motor.kicad_sch

Title:

Size: A4

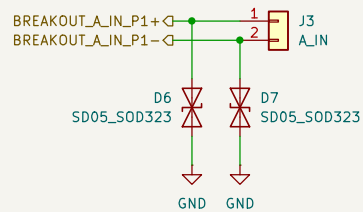
Date:

Rev:

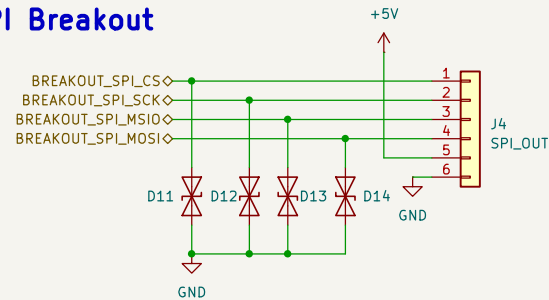
KiCad E.D.A. 8.0.2

Id: 6/18

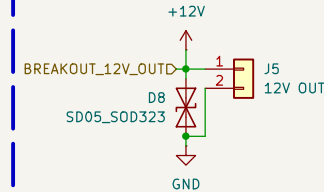
Analog Input Breakout



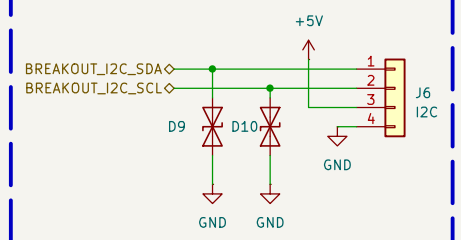
SPI Breakout



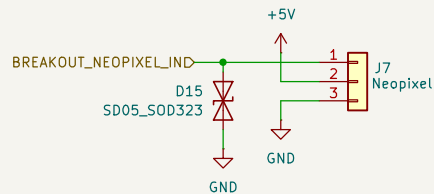
12V Power Breakout



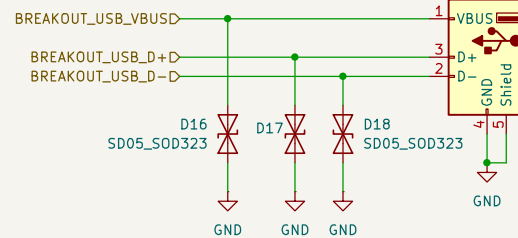
I2C Breakout



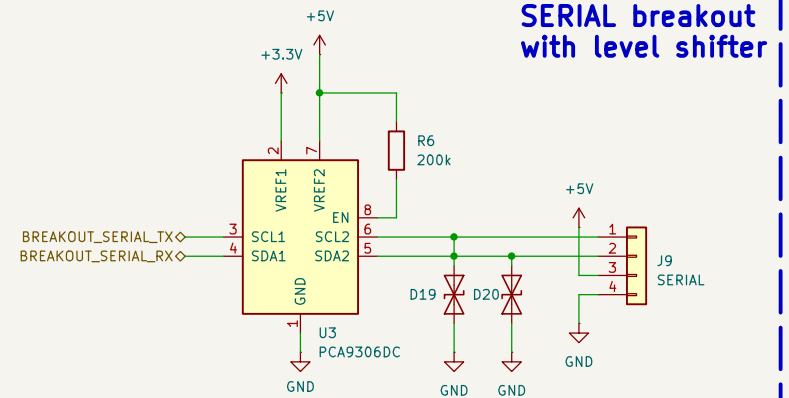
Neopixel Breakout



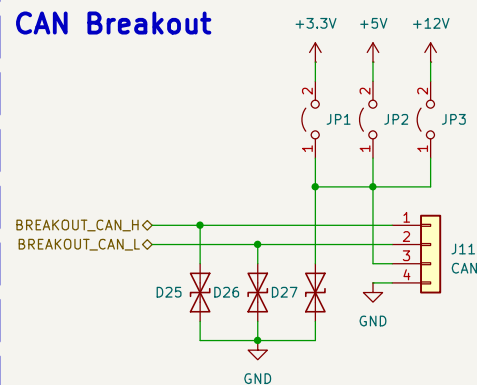
USB OTG/HOST Breakout



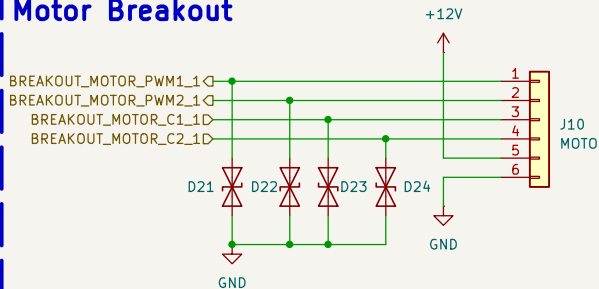
SERIAL breakout with level shifter



CAN Breakout



Motor Breakout



Closed Loop Motor Interface OR 2 GPIO (C1, C2)

If Serial-1 is UNUSED, then 2 GPIO

If I2C is UNUSED, then 2 GPIO

If SPI is UNUSED, then 1 GPIO (CS)

Sheet: /OUTPUTS/
File: outputs.kicad_sch

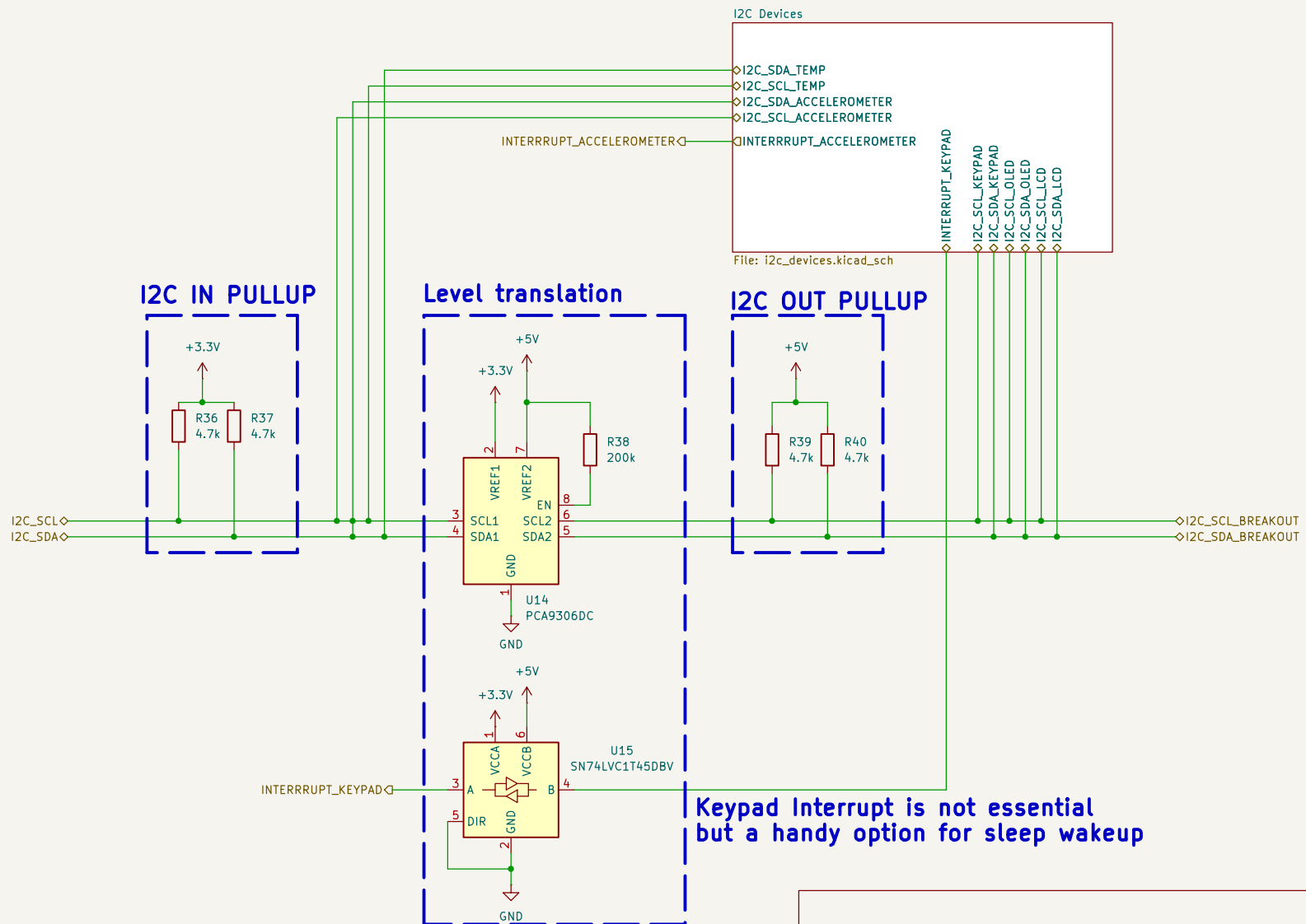
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Size: A4 Date:

KiCad E.D.A. 8.0.2

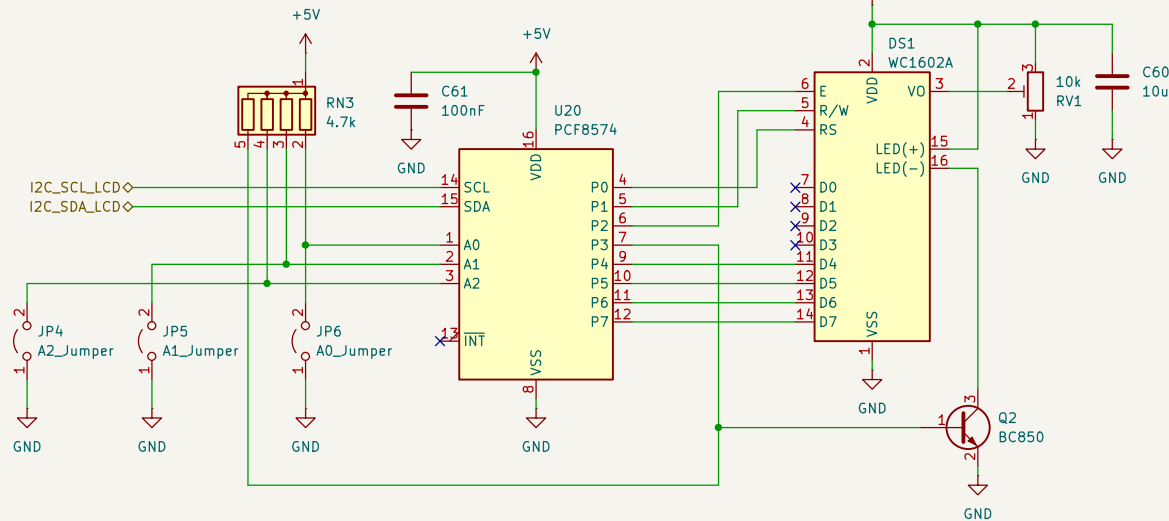
Rev:

Id: 7/18

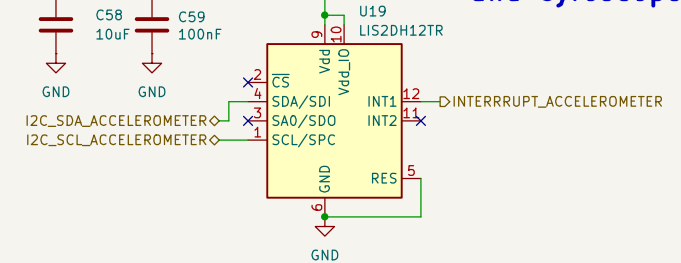


| | | |
|---------------------|-------|----------|
| Sheet: /I2C/ | | |
| File: i2c.kicad_sch | | |
| Title: | | |
| Size: A4 | Date: | Rev: |
| KiCad E.D.A. 8.0.2 | | Id: 8/18 |

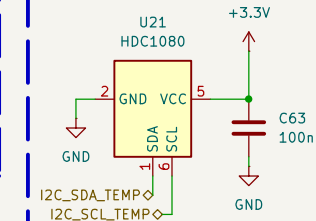
LCD with I2C I/O Expander



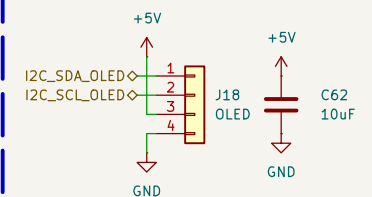
Accelerometer and Gyroscope



Temperature and Humidity Sensor

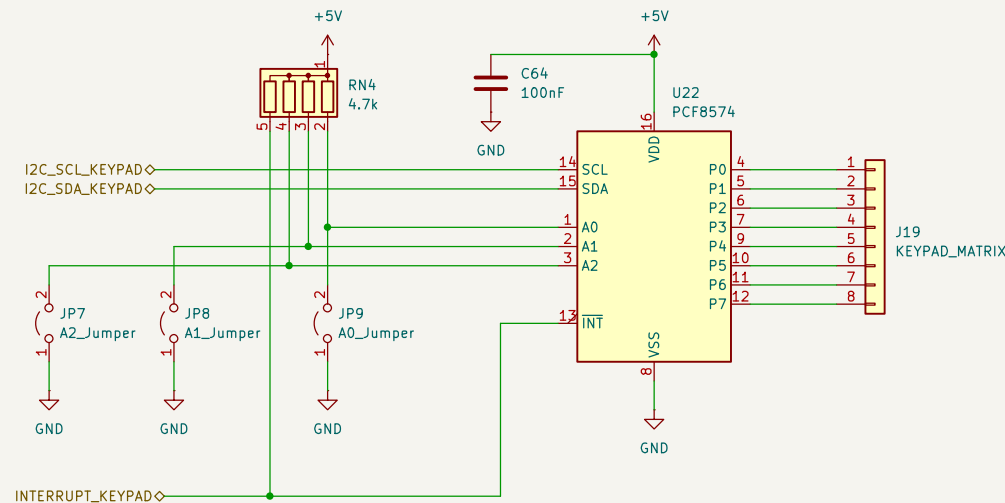


Oled Breakout 128x32



Oled can be removed,
but it expands the board's
capabilities at minimal cost
(More noise and I2C traffic)

Keypad Matrix with I2C I/O Expander



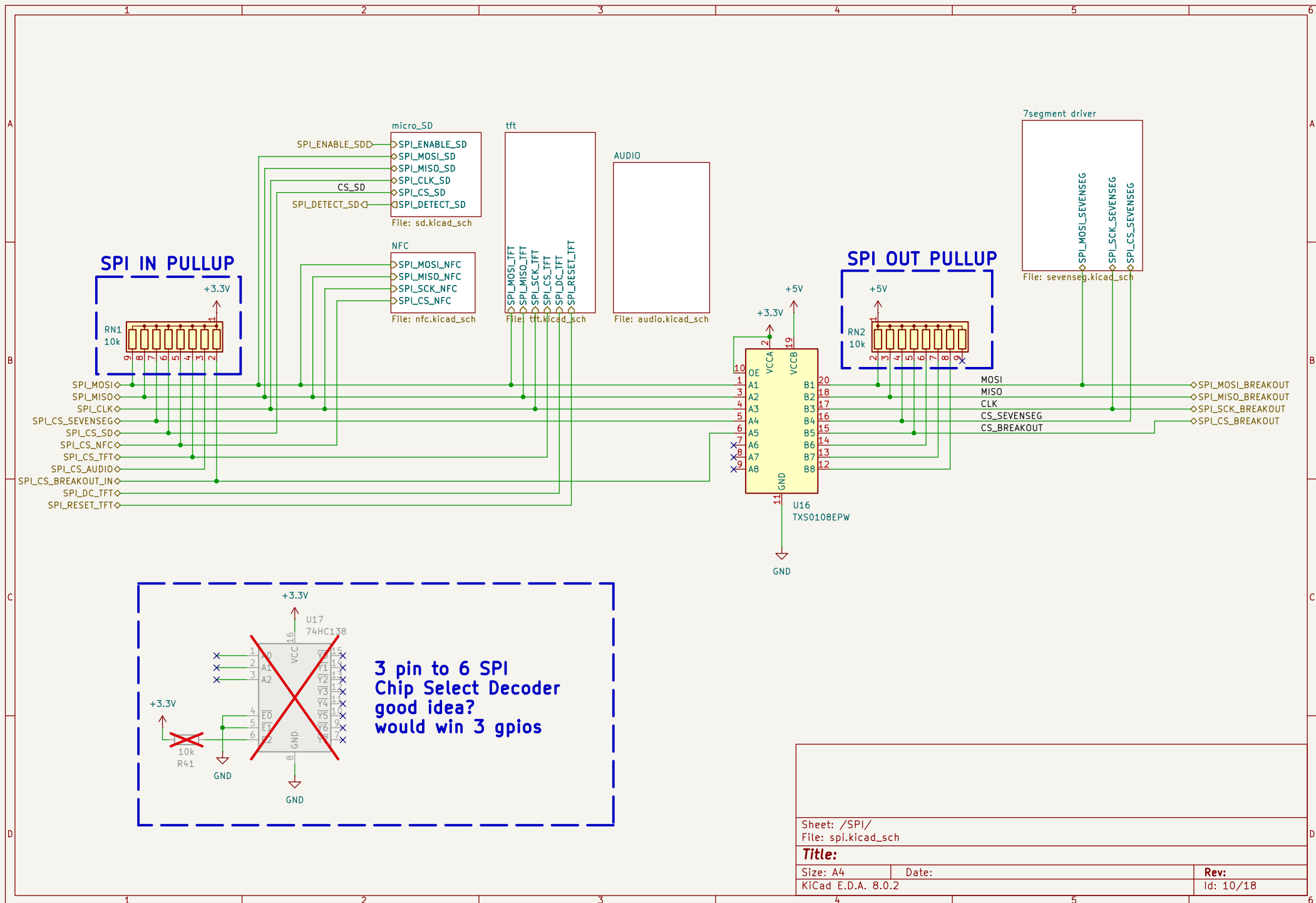
Sheet: /I2C/I2C Devices/
File: i2c_devices.kicad_sch

Title:

Size: A4
KiCad E.D.A. 8.0.2

Date:

Rev:
Id: 9/18



Sheet: /SPI/
File: spi.kicad_sch

Title:

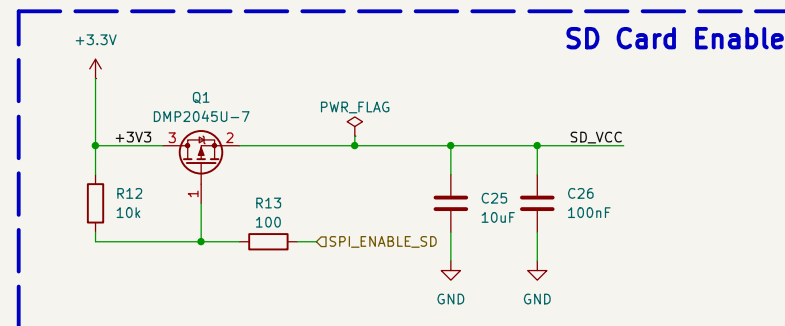
Size: A4

Date:

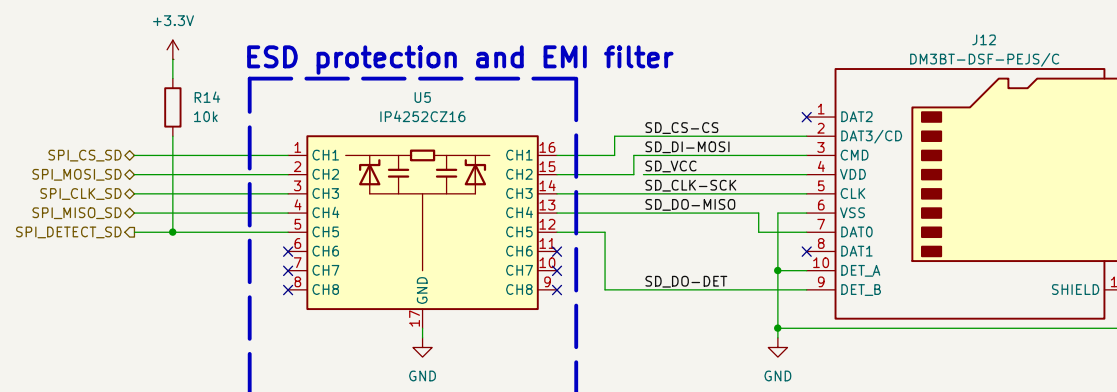
KiCad E.D.A. 8.0.2

Rev:

Id: 10/18



SD Card Enable AND
SD Card Detect
can be removed



Sheet: /SPI/micro_SD/
File: sd.kicad_sch

Title:

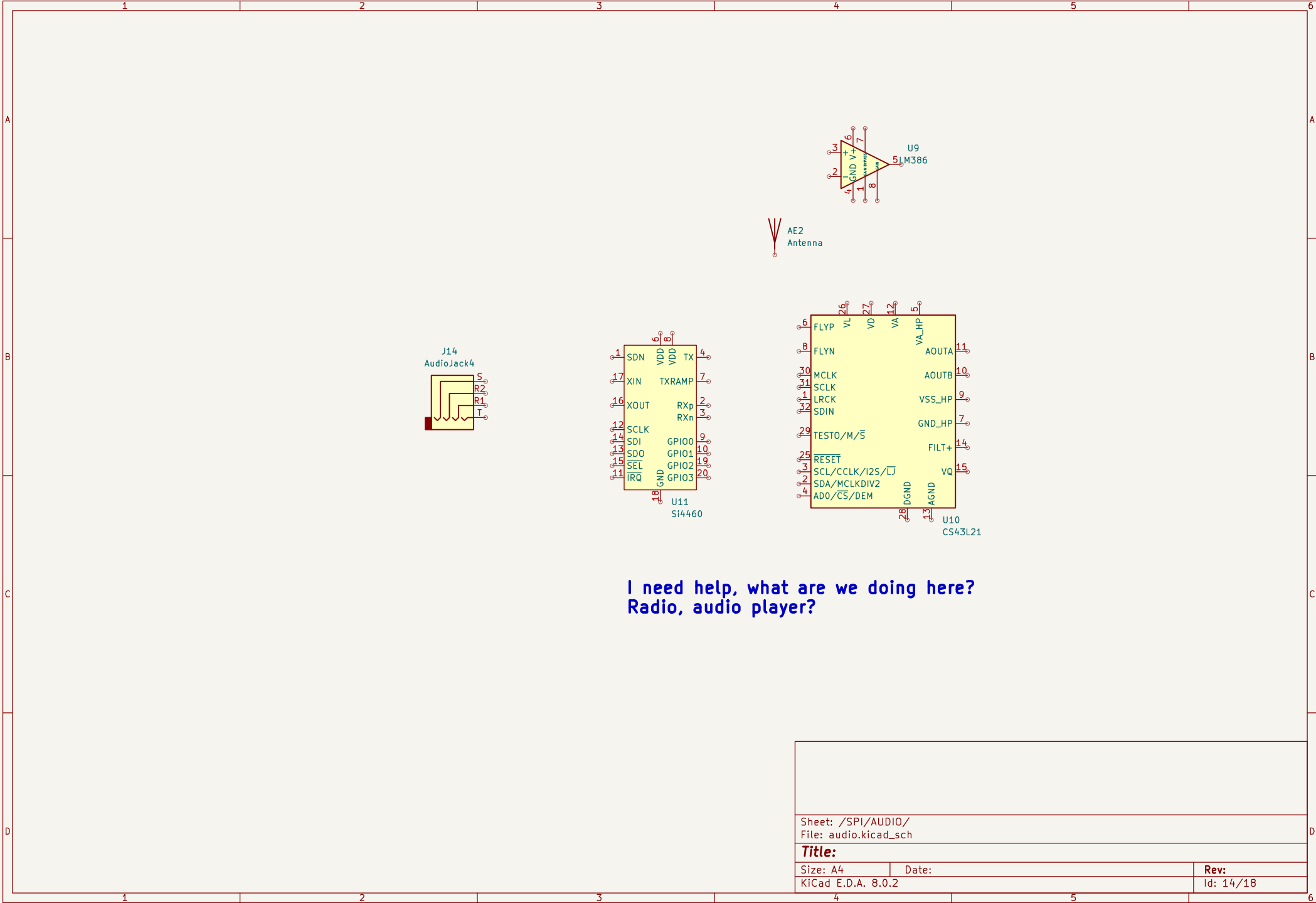
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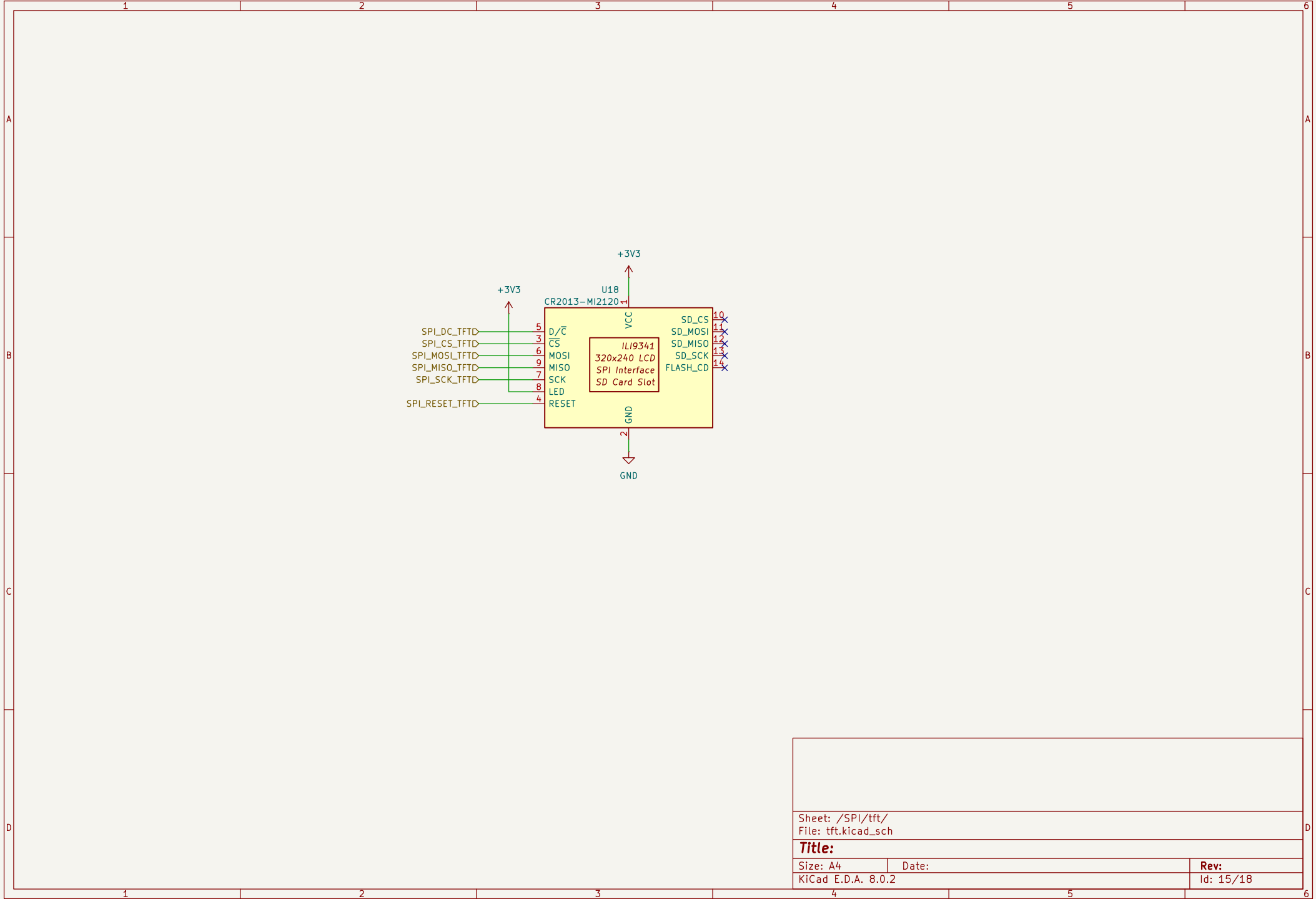
Date:

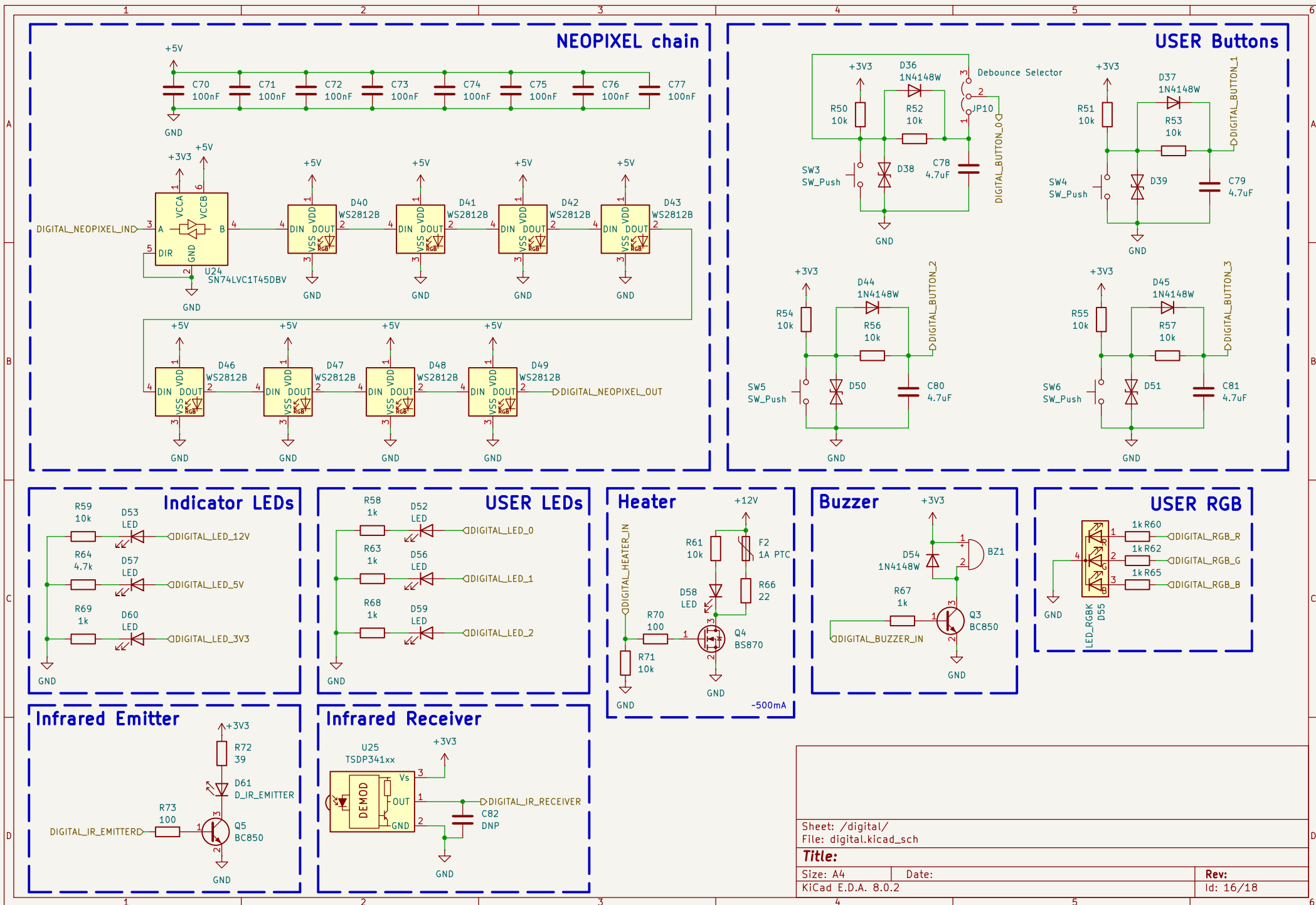
KiCad E.D.A. 8.0.2

Rev:

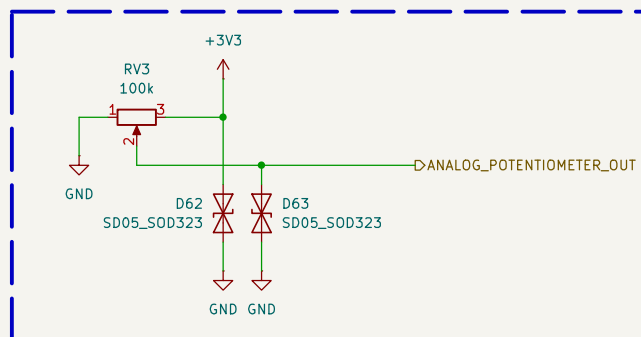
Id: 13/18



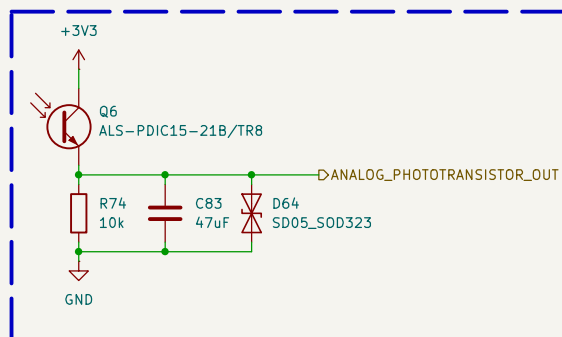




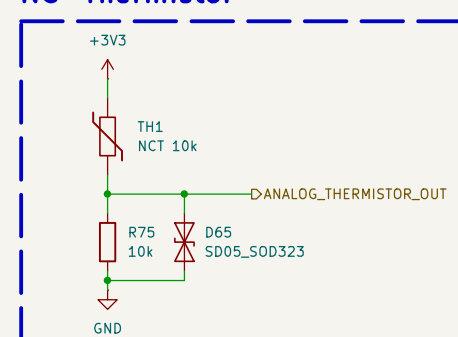
Potentiometer



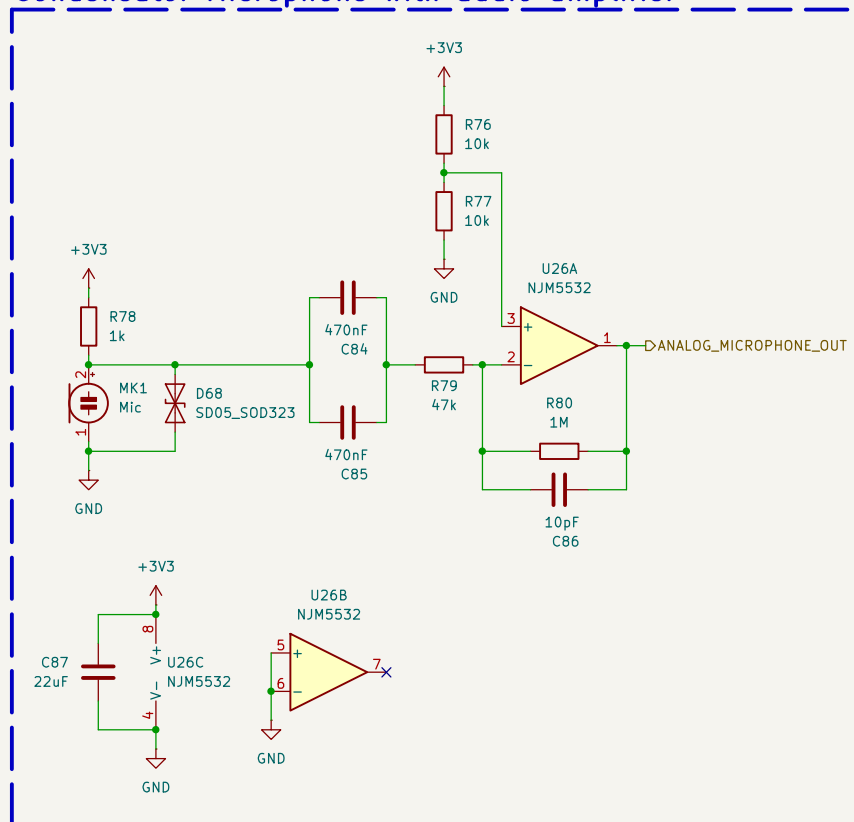
Phototransistor



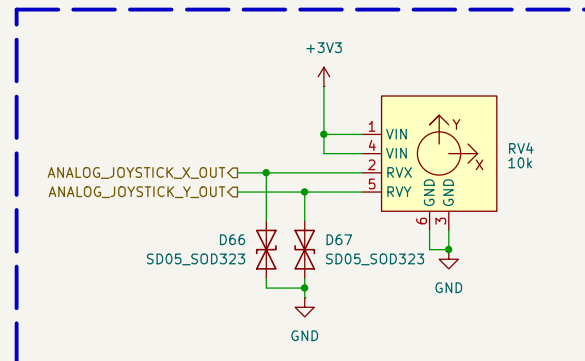
NC-Thermistor



Condensator Microphone with audio amplifier



2-Axis Joystick



Sheet: /analog/
File: analog.kicad_sch

Title:

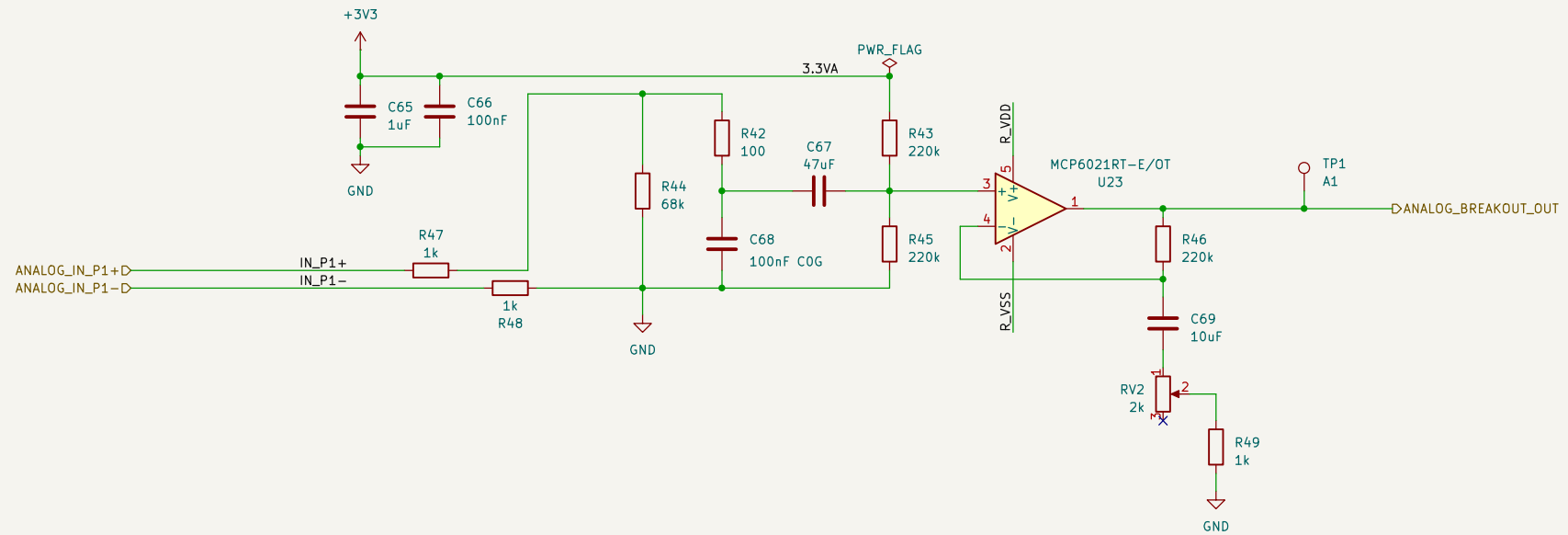
Size: A4

Date:

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Rev:

Id: 17/18



Sheet: /50Hz Filter/
File: filter.kicad_sch

Title:

Size: A4

Date:

KiCad E.D.A. 8.0.2

Rev:

Id: 18/18