

# Thermal Camera

[https://github.com/drewsum/Thermal\\_Camera](https://github.com/drewsum/Thermal_Camera)

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Sheet: /

File: Thermal\_Camera.kicad\_sch

**Title: Thermal Camera**

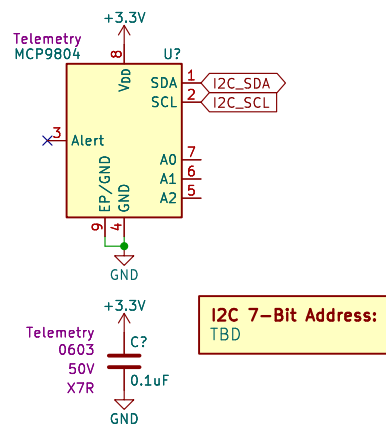
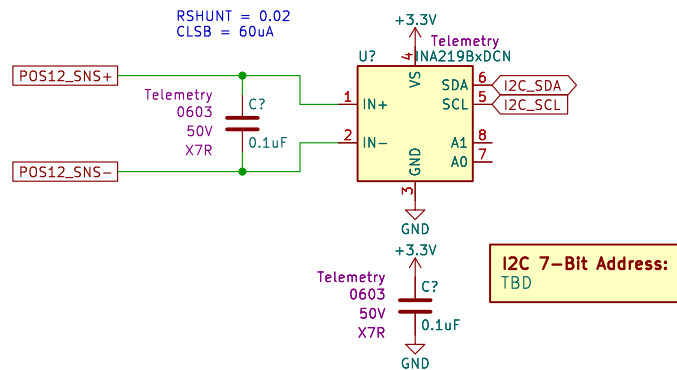
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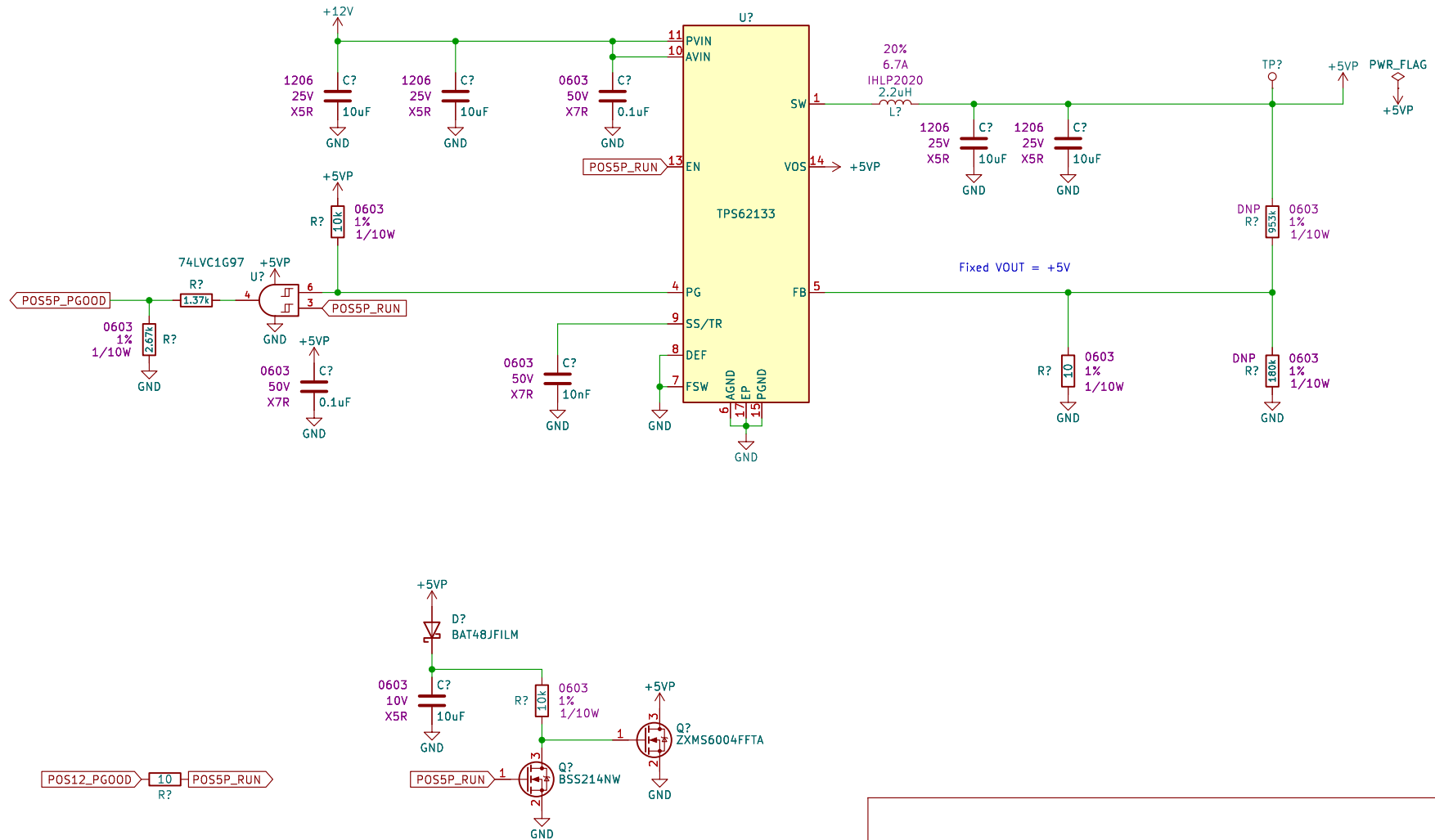
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**Title: Thermal Camera**

Size: A Date: 2023-11-12  
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Id: 3/25

# CHANGE TO +3.3V



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Sheet: /POS3P3 Power Supply/

File: POS3P3\_Power\_Supply.kicad\_sch

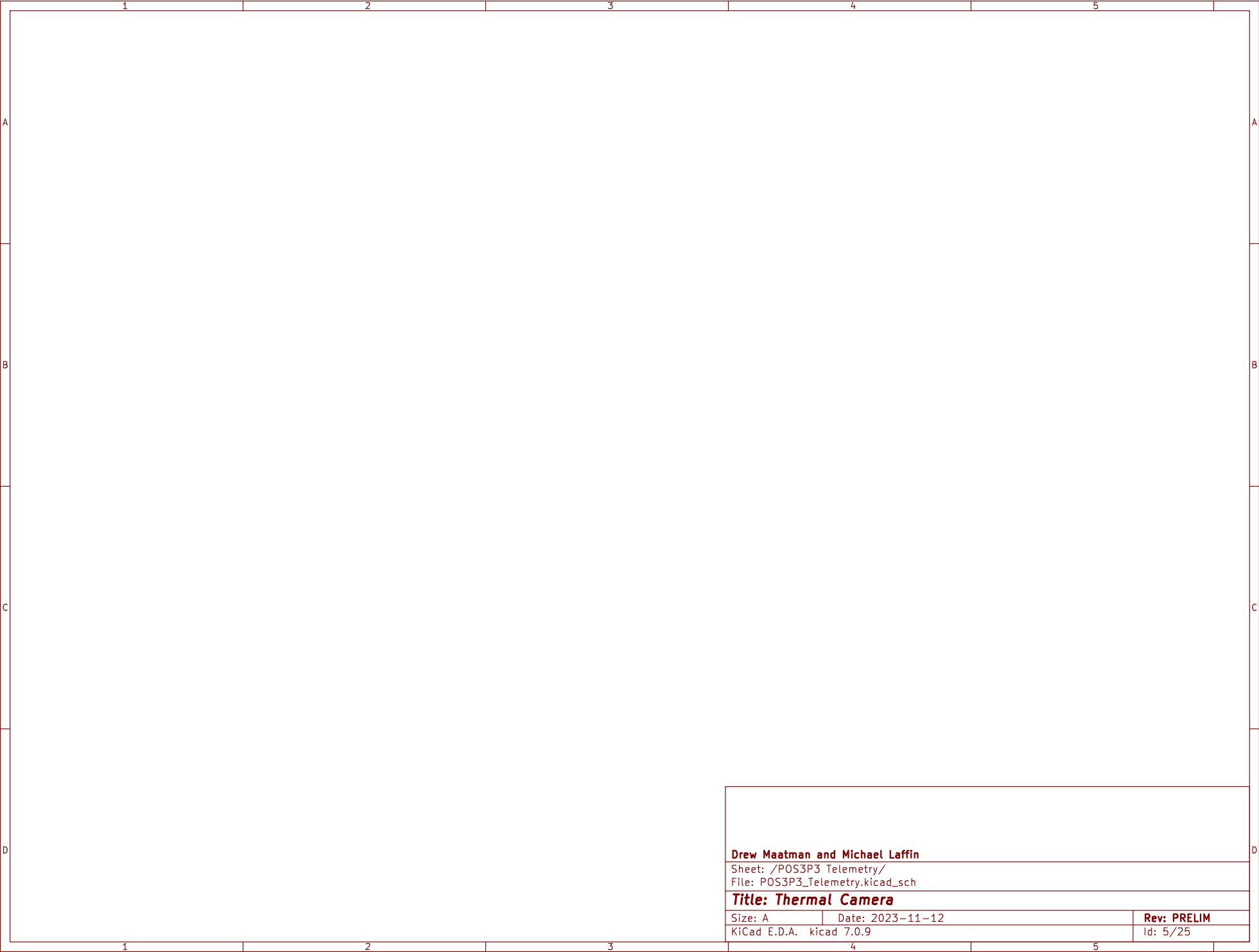
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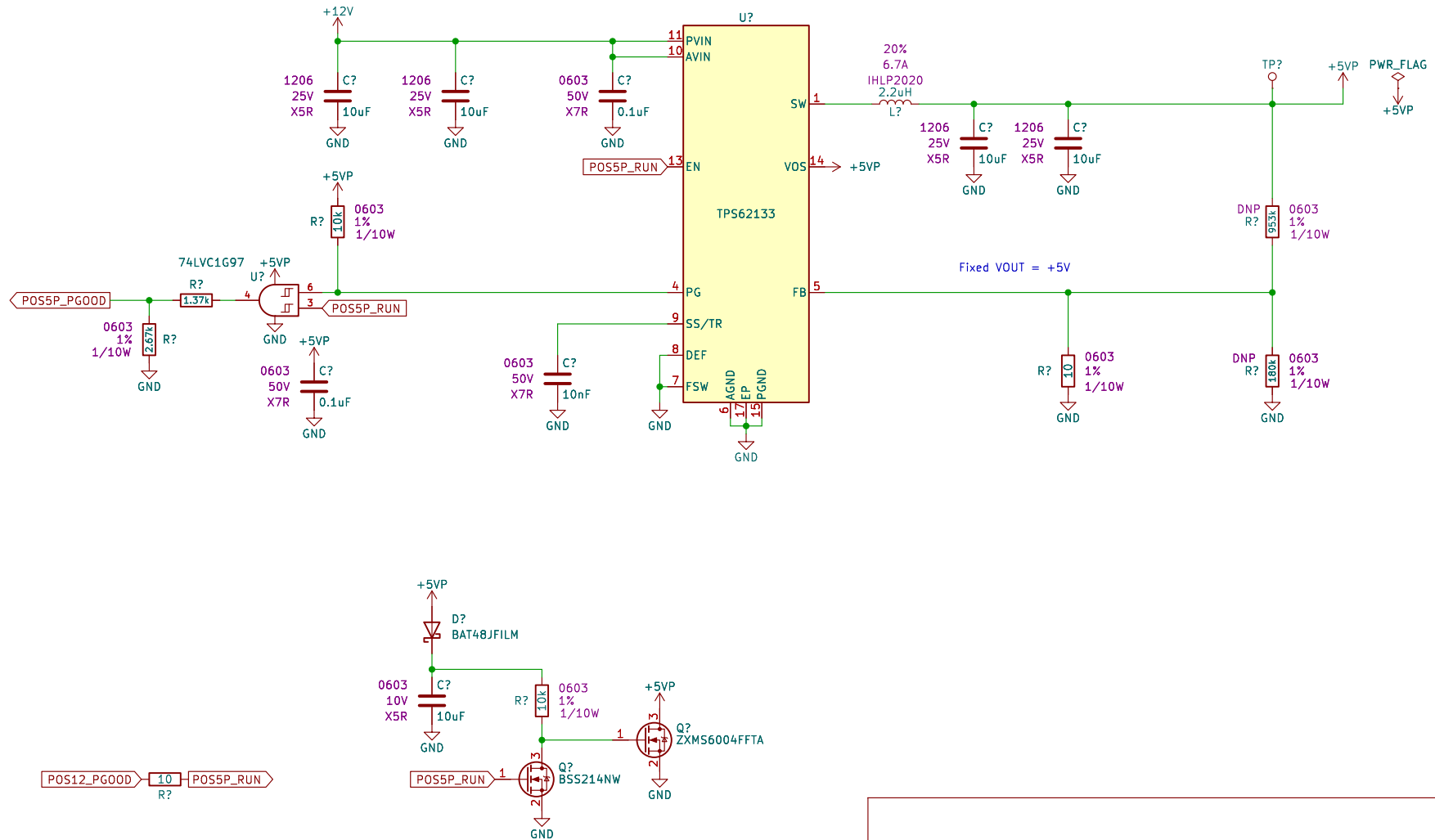
KiCad E.D.A. kicad 7.0.9

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# CHANGE TO +1.8V



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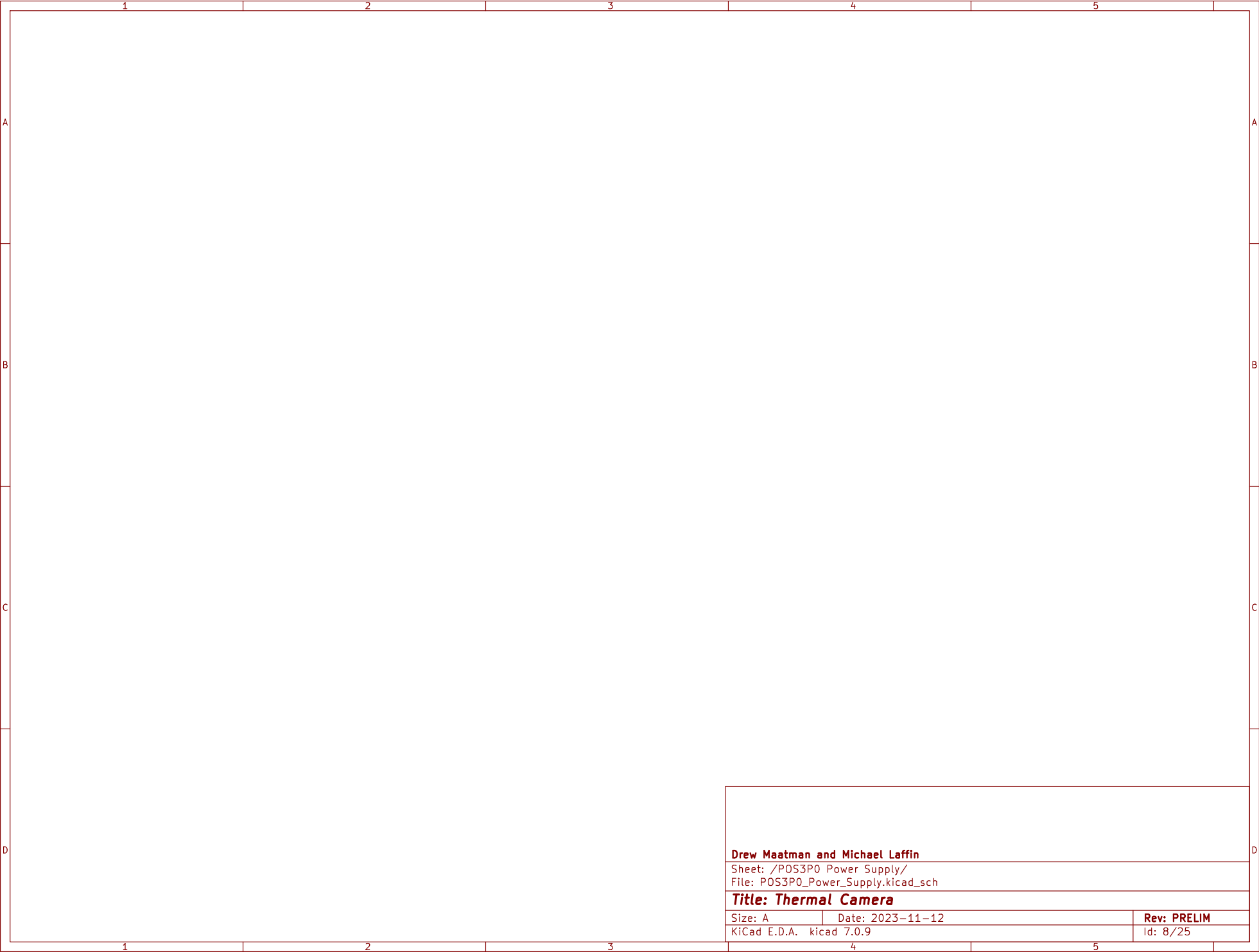
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**Title: Thermal Camera**

Size: A Date: 2023-11-12  
KiCad E.D.A. kicad 7.0.9

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Sheet: /POS3P0 Power Supply/  
File: POS3P0\_Power\_Supply.kicad\_sch

**Title: Thermal Camera**

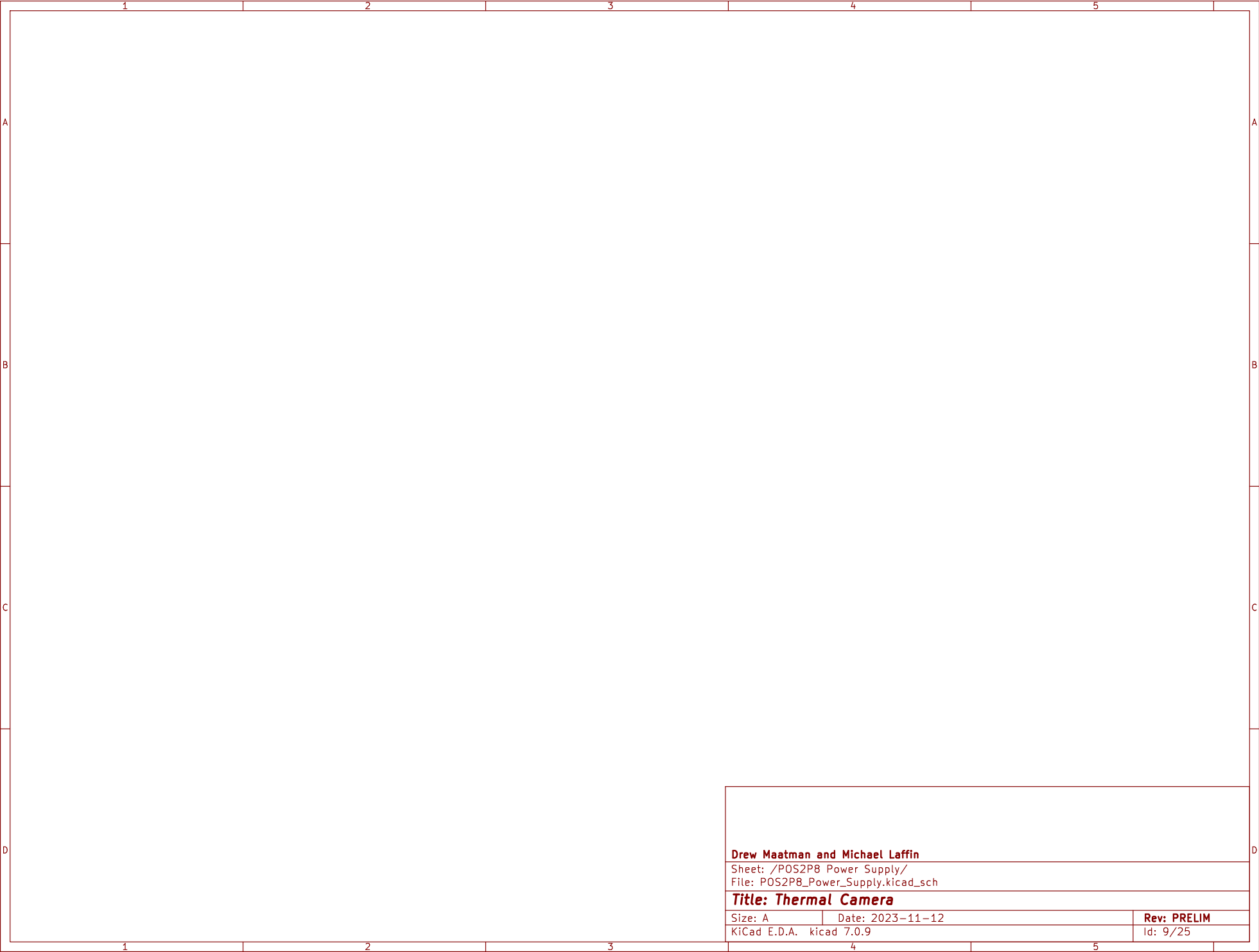
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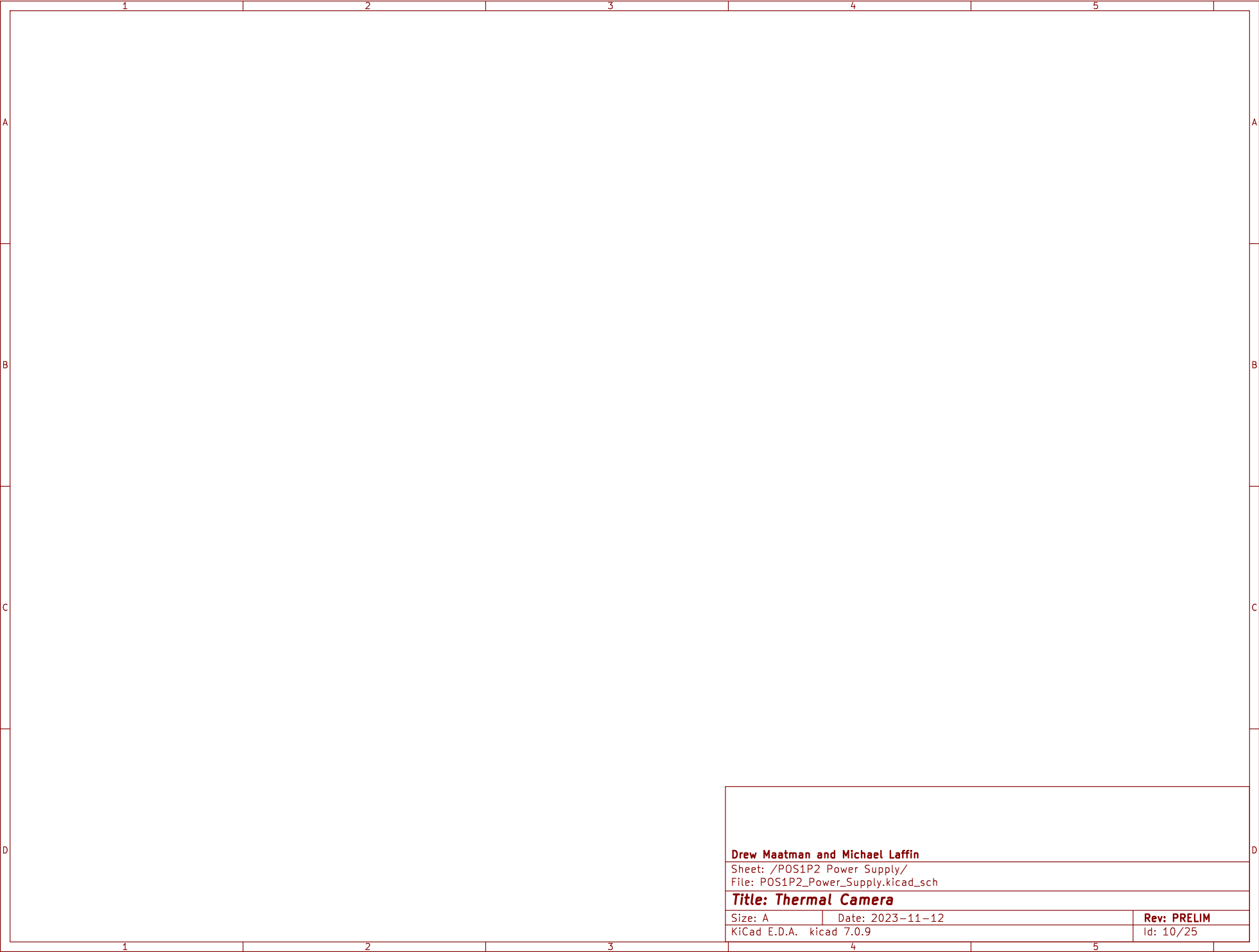
KiCad E.D.A. kicad 7.0.9

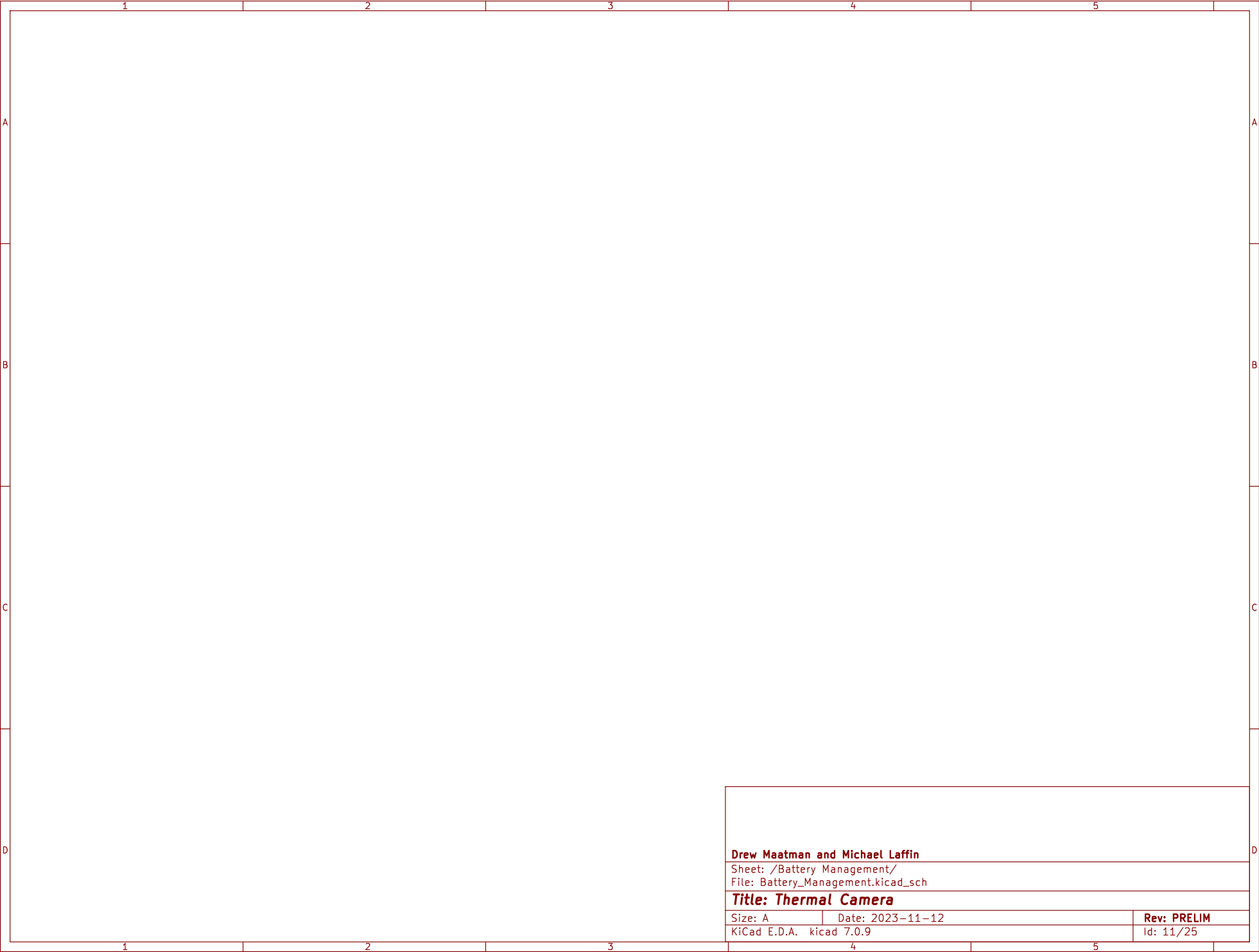
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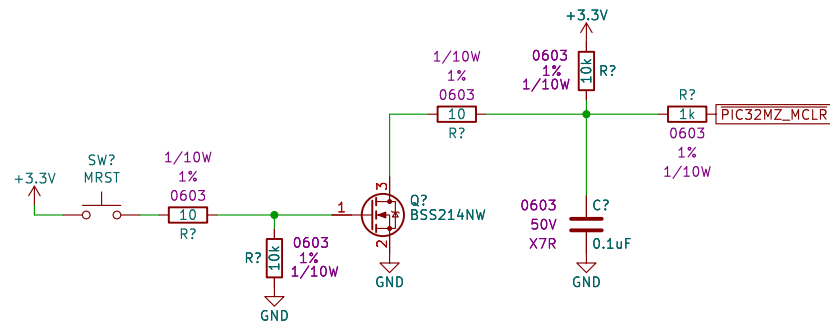






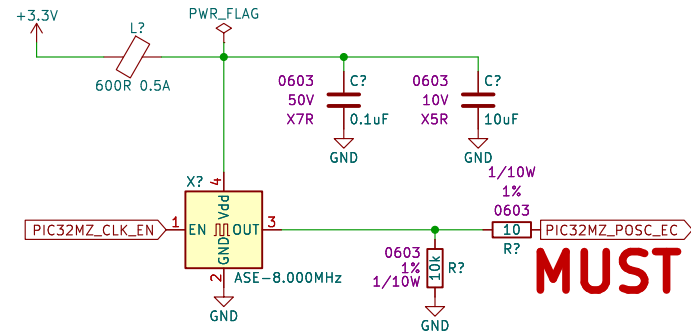
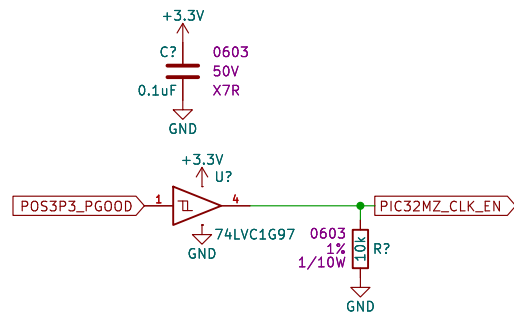


Drew Maatman and Michael Laffin		
Sheet: /Battery Management/ File: Battery_Management.kicad_sch		
Title: Thermal Camera		
Size: A	Date: 2023-11-12	Rev: PRELIM
KiCad E.D.A. kicad 7.0.9		Id: 11/25

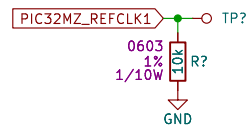
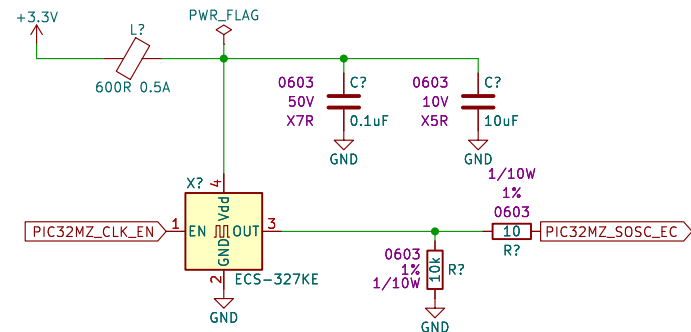


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# COPIED FROM PIC32MZ EF FIX FOR PIC32MZ DA



**MUST BE 24MHZ**



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Sheet: /PIC32MZ DA Clocking/  
File: PIC32MZ\_DA\_Clocking.kicad\_sch

**Title: Thermal Camera**

Size: A Date: 2023-11-12  
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COPIED FROM PIC32MZ EF  
FIX FOR PIC32MZ DA

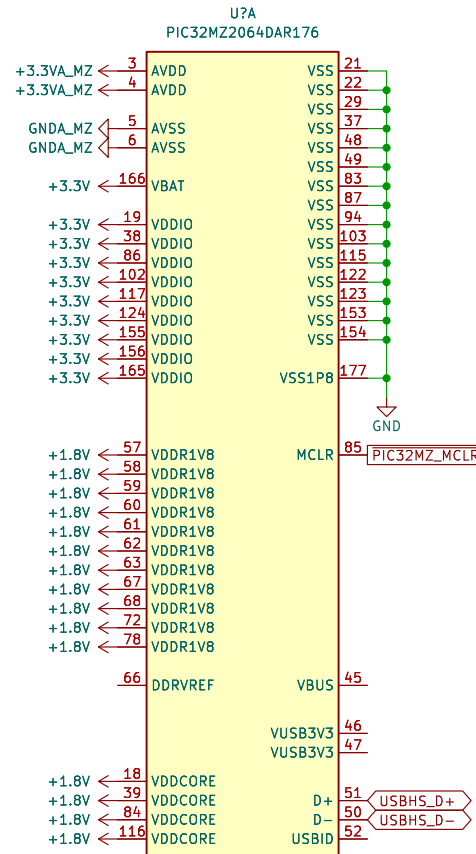
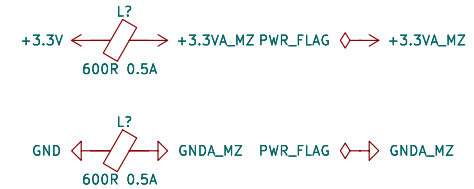
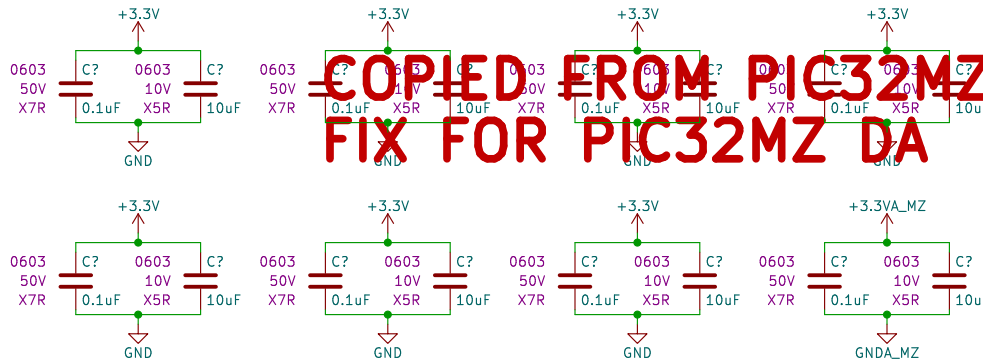


FIGURE OUT HOW TO USE THIS

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Sheet: /PIC32MZ DA Power/  
File: PIC32MZ\_DA\_Power.kicad\_sch

Title: Thermal Camera

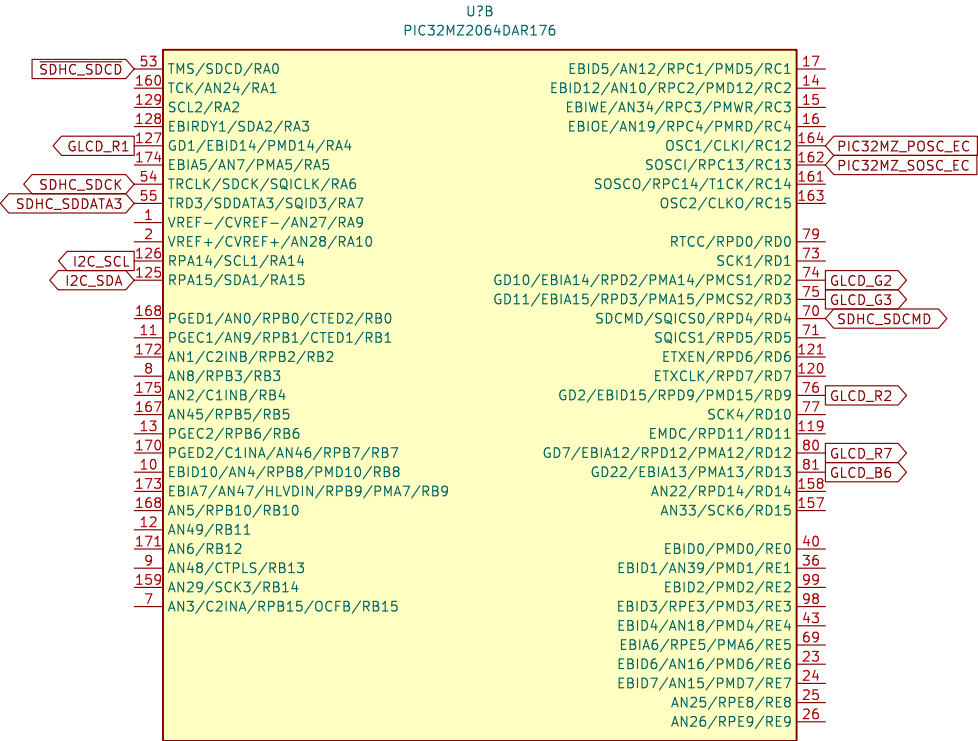
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KiCad E.D.A. kicad 7.0.9

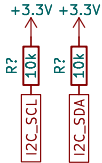
Rev: PRELIM

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See TABLE 36-1:RGB COLOR MAPPING for Graphic LCD Pin Mapping



DOUBLE CHECK  
SOSC PIN



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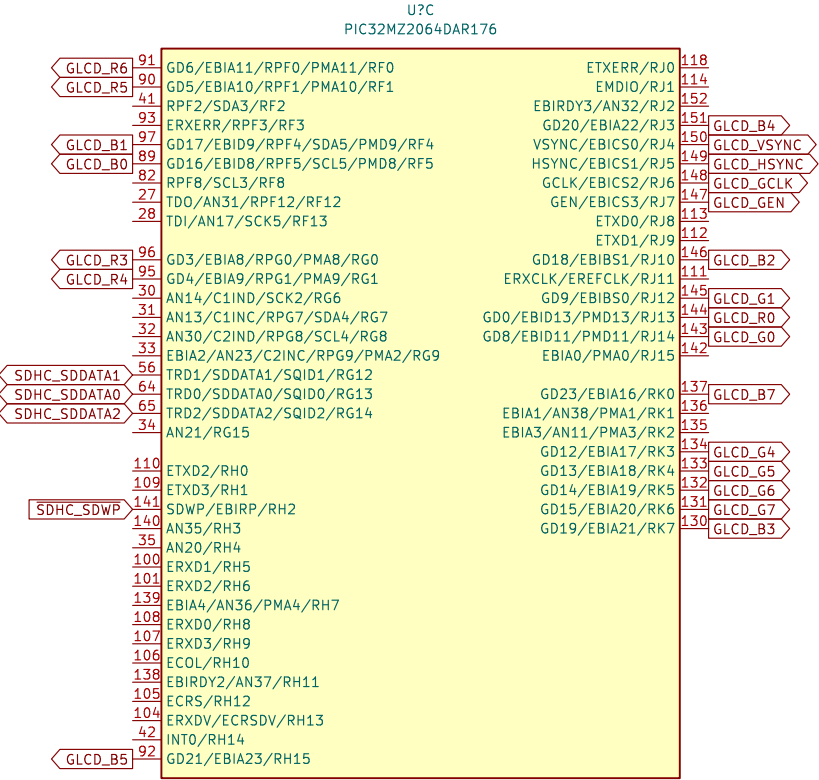
Sheet: /PIC32MZ DA 1/  
File: PIC32MZ\_DA\_1.kicad\_sch

Title: Thermal Camera

Size: A Date: 2023-11-12  
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See TABLE 36-1:RGB COLOR MAPPING for Graphic LCD Pin Mapping



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Sheet: /PIC32MZ DA 2/  
File: PIC32MZ\_DA\_2.kicad\_sch

Title: Thermal Camera

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SDHC\_SDDATA1  
SDHC\_SDDATA0  
SDHC\_SDDATA2

SDHC\_SDCD

SDHC\_SDCMD

SDHC\_SDWP

SDHC\_SDCK  
SDHC\_SDDATA3

## SD CARD, SQI FLASH

SQI FLASH may not be able to be broken out  
when PIC is configured for SDHC:  
CONSIDER OPTIONS FOR SUPPORTING EITHER

BREAK OUT A SPI TO SD CARD AS INSURANCE

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Sheet: /External Storage/  
File: External\_Storage.kicad\_sch

**Title: Thermal Camera**

Size: A Date: 2023-11-12

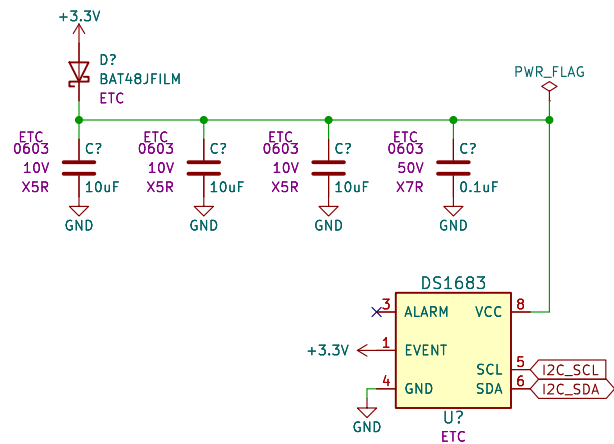
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I2C 7-Bit Address:  
0x6B

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Sheet: /Elapsed Time Counter/  
File: Elapsed\_Time\_Counter.kicad\_sch

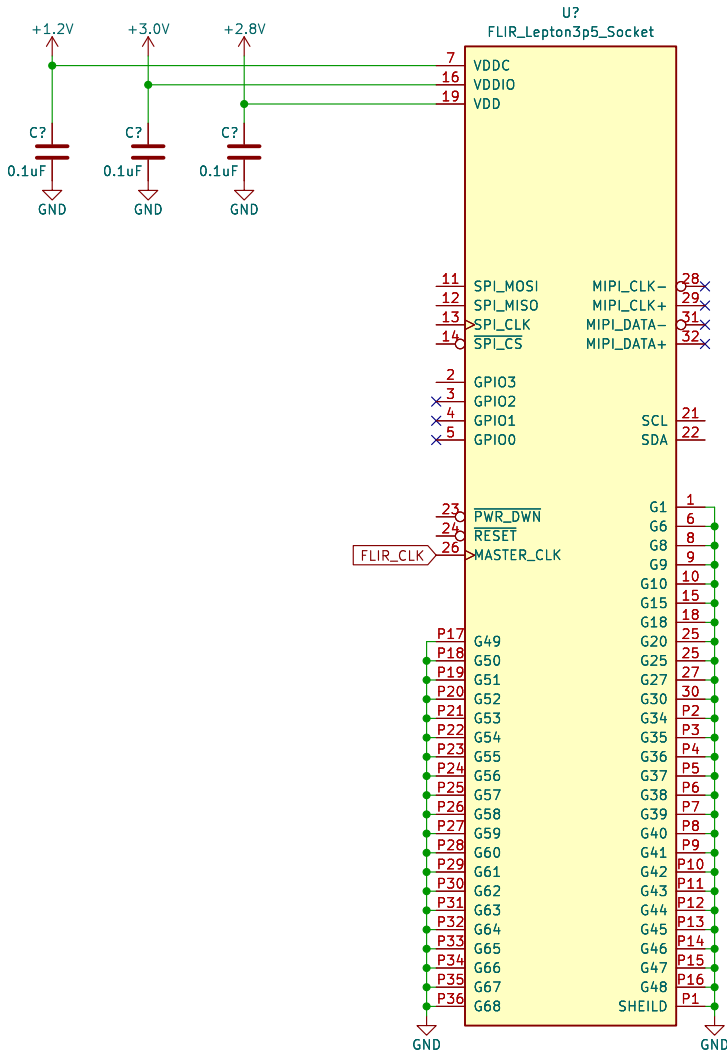
**Title: Thermal Camera**

Size: A Date: 2023-11-12  
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CAUTION: +3.0V I/O

Power Supply Considerations:  
VDDC: 1.20V (1.14V min, 1.26V max), 50mVpp max ripple, 110mA max draw  
VDD: 2.80V (2.72V min, 2.88V max), 30mVpp max ripple, 16mA max draw  
VDDIO: 2.8V min, 3.1V max, 50mVpp max ripple, 310mA max draw



See FLIR document #110-0144-04 for I2C register map



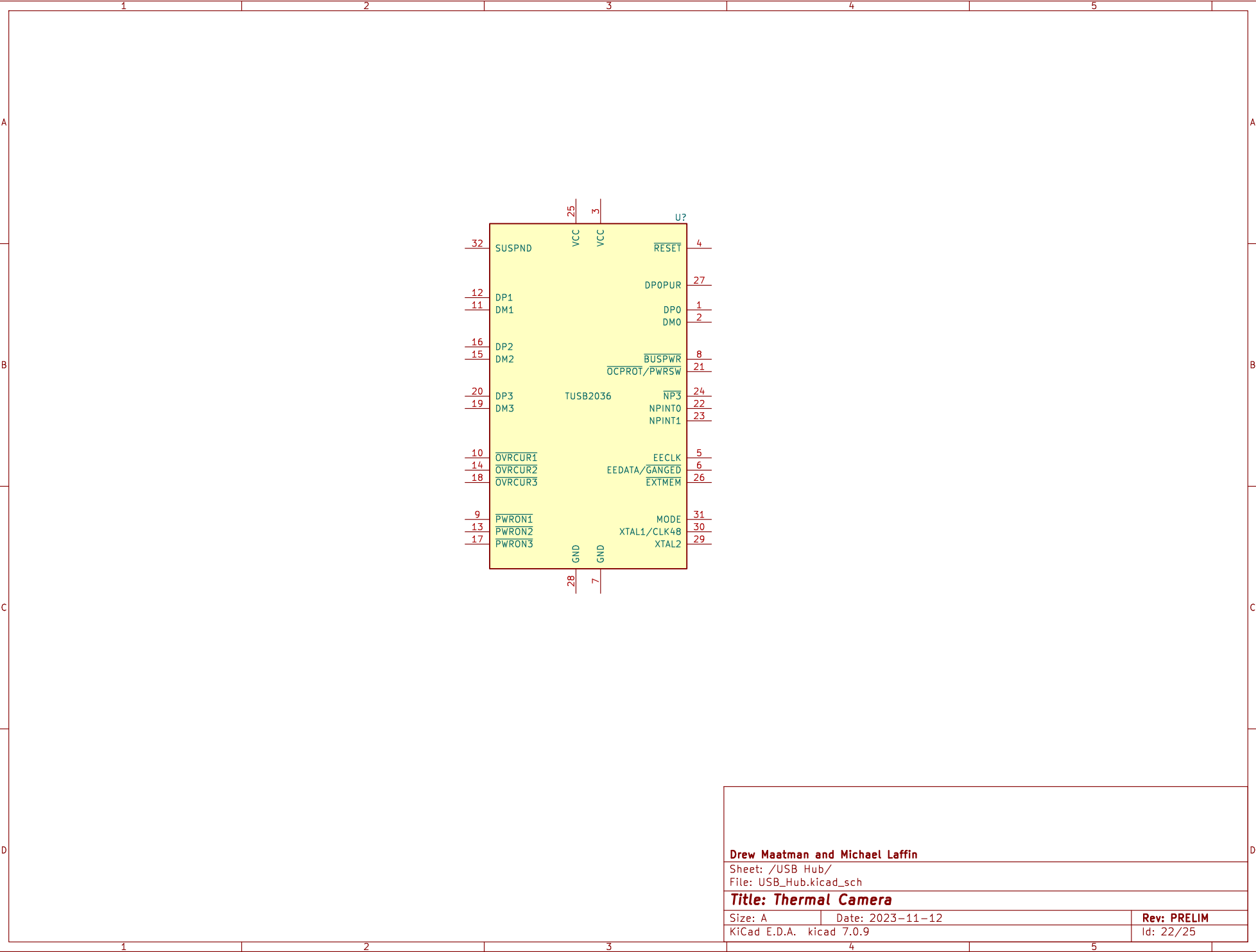
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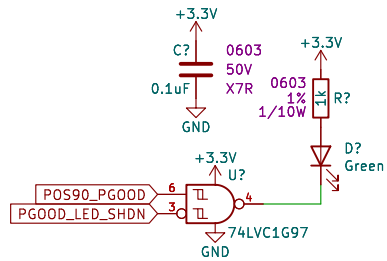
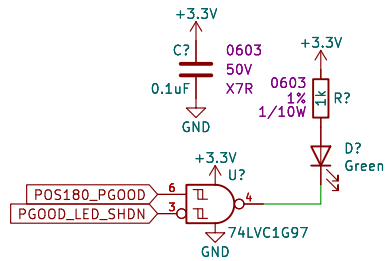
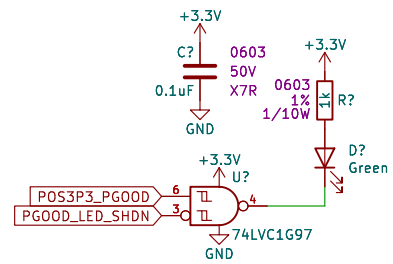
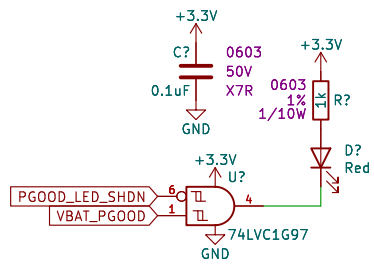
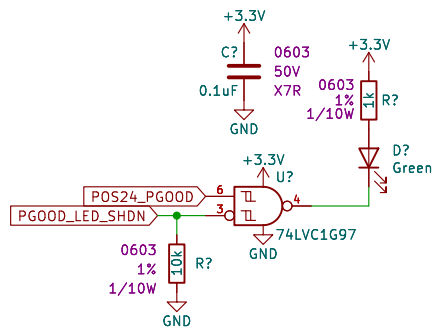
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File: FLIR\_Lepton\_Sensor.kicad\_sch

Title: Thermal Camera

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KiCad E.D.A. kicad 7.0.9

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Sheet: /PGOOD LEDs/

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**Title: Thermal Camera**

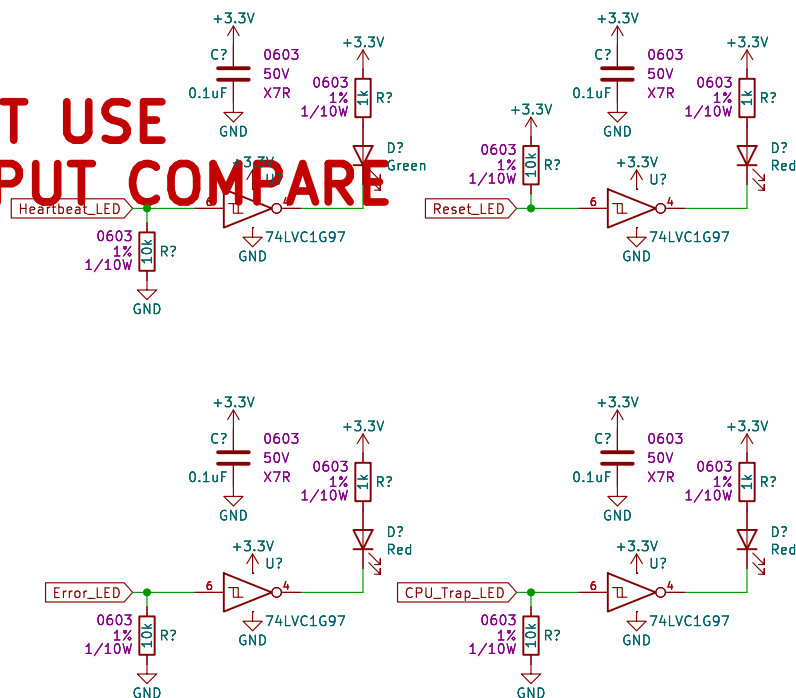
Size: A Date: 2023-11-12

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**MUST USE  
OUTPUT COMPARE  
PIN**



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Sheet: /Status\_LEDs/  
File: Status\_LEDs.kicad\_sch

**Title: Thermal Camera**

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KiCad E.D.A. kicad 7.0.9

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