

Thermal Camera

https://github.com/drewsum/Thermal_Camera

01. Table of Contents

02. POS12 Input

POS12_Input

File: POS12_Input.kicad_sch

03. POS12 Telemetry

POS12_Telemetry

File: POS12_Telemetry.kicad_sch

04. POS3P3 Power Supply

POS3P3_Power_Supply

File: POS3P3_Power_Supply.kicad_sch

05. POS3P3 Telemetry

POS3P3_Telemetry

File: POS3P3_Telemetry.kicad_sch

06. POS1P8 Power Supply

POS1P8_Power_Supply

File: POS1P8_Power_Supply.kicad_sch

07. POS1P8 Telemetry

POS1P8_Telemetry

File: POS1P8_Telemetry.kicad_sch

08. Battery Management

Battery_Management

File: Battery_Management.kicad_sch

09. PIC32MZ DA Programming

PIC32MZ_DA_Programming

File: PIC32MZ_DA_Programming.kicad_sch

10. PIC32MZ DA Clocking

PIC32MZ_DA_Clocking

File: PIC32MZ_DA_Clocking.kicad_sch

11. PIC32MZ DA Power

PIC32MZ_DA_Power

File: PIC32MZ_DA_Power.kicad_sch

12. PIC32MZ DA 1

PIC32MZ_DA_1

File: PIC32MZ_DA_1.kicad_sch

13. PIC32MZ DA 2

PIC32MZ_DA_2

File: PIC32MZ_DA_2.kicad_sch

14. External Storage

External_Storage

File: External_Storage.kicad_sch

15. Graphic LCD

Graphic_LCD

File: Graphic_LCD.kicad_sch

16. USB UART

USB_UART

File: USB_UART.kicad_sch

17. Elapsed Time Counter

Elapsed_Time_Counter

File: Elapsed_Time_Counter.kicad_sch

18. FLIR Lepton Sensor

FLIR_Lepton_Sensor

File: FLIR_Lepton_Sensor.kicad_sch

19. USB HS Port

USB_HS_Port

File: USB_HS_Port.kicad_sch

20. PGOOD LEDs

PGOOD_LEDs

File: PGOOD_LEDs.kicad_sch

21. Status LEDs

Status_LEDs

File: Status_LEDs.kicad_sch

22. Mechanical

Mechanical

File: Mechanical.kicad_sch

Drew Maatman and Michael Laffin

Sheet: /

File: Thermal_Camera.kicad_sch

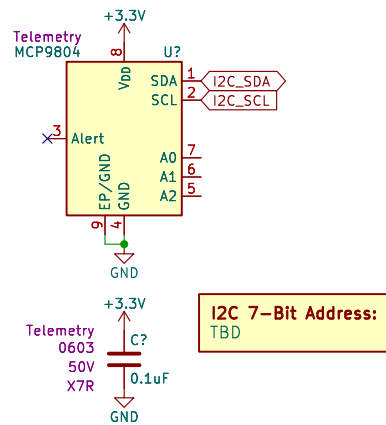
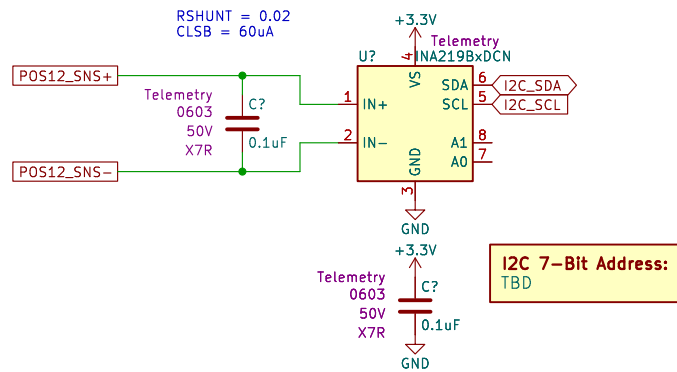
Title: Thermal Camera

Size: A Date: 2023-11-11

KiCad E.D.A. kicad 7.0.9

Rev: PRELIM

Id: 1/22



Drew Maatman and Michael Laffin

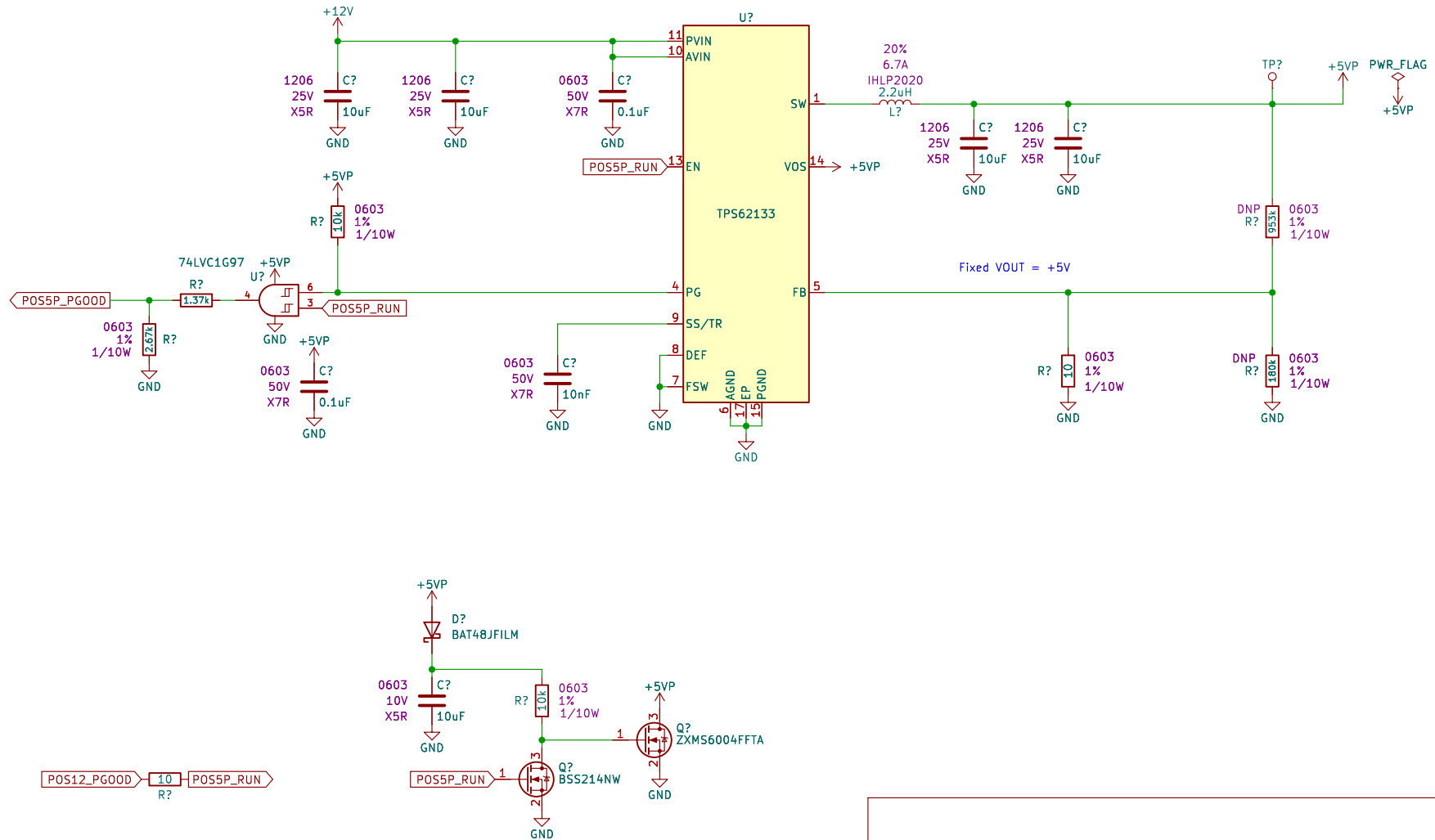
Sheet: /POS12 Telemetry/
File: POS12_Telemetry.kicad_sch

Title: Thermal Camera

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

Rev: PRELIM
Id: 3/22

CHANGE TO +3.3V



Drew Maatman and Michael Laffin

Sheet: /POS3P3 Power Supply/

File: POS3P3_Power_Supply.kicad_sch

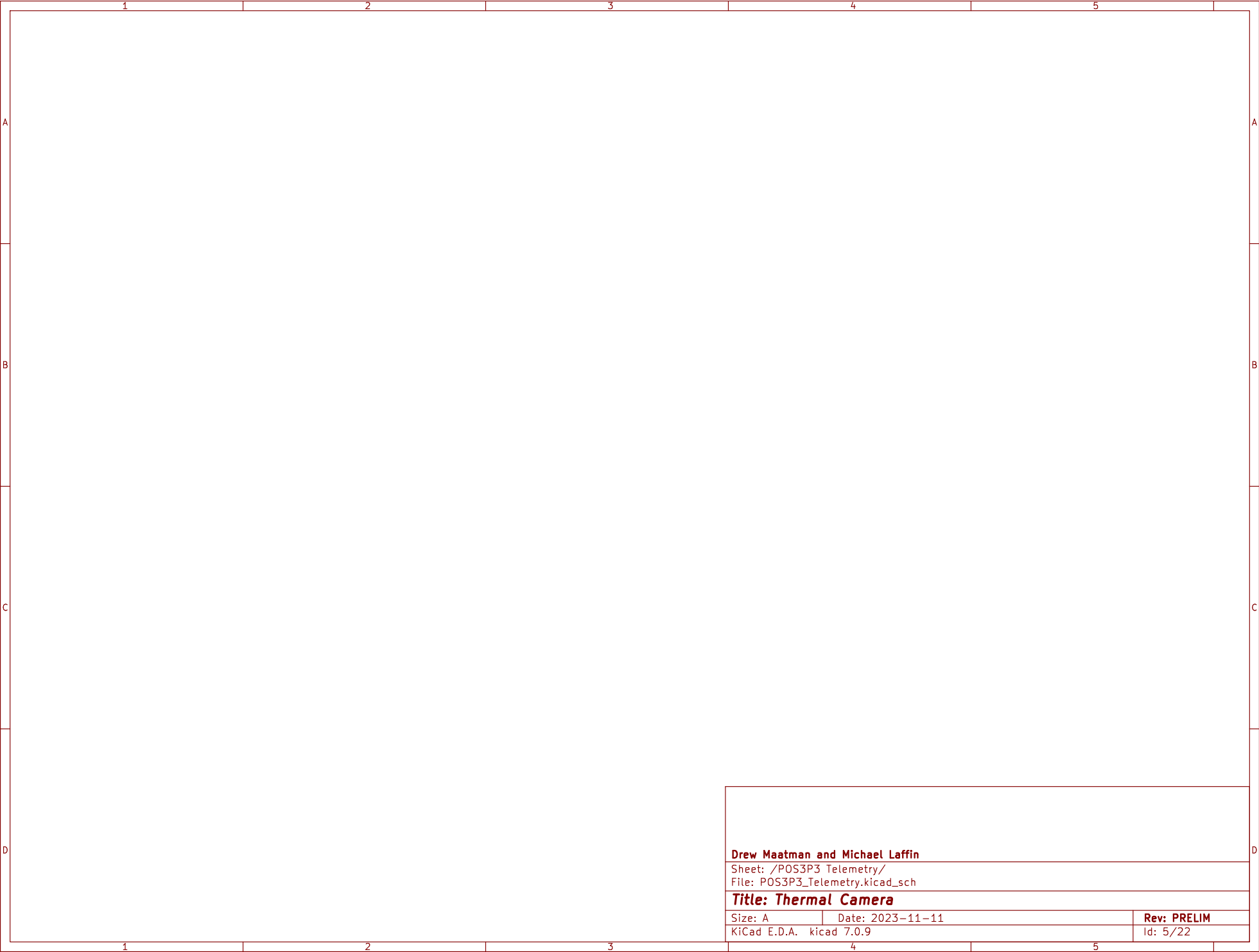
Title: Thermal Camera

Size: A Date: 2023-11-11

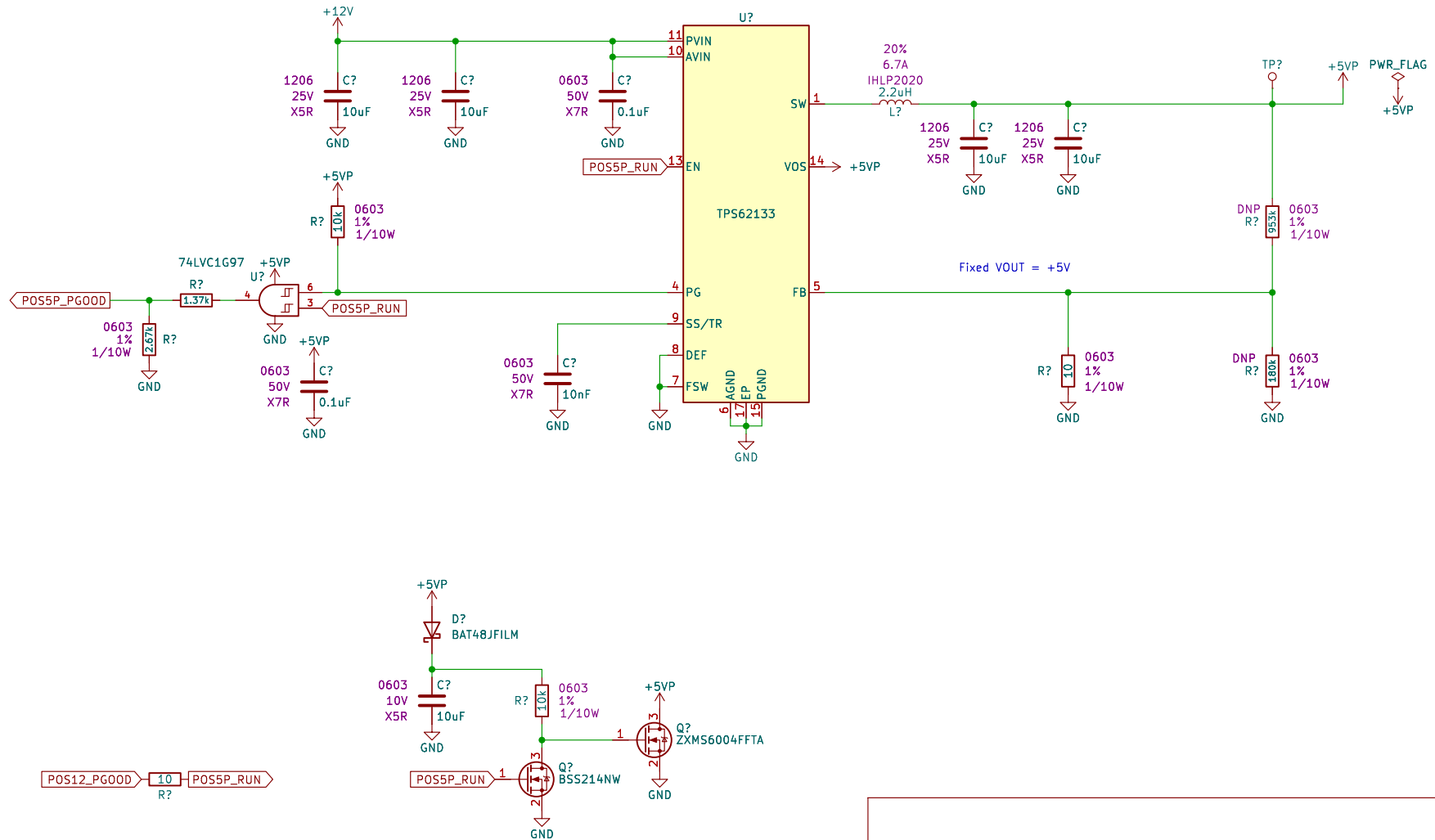
KiCad E.D.A. kicad 7.0.9

Rev: PRELIM

Id: 4/22



CHANGE TO +1.8V



Drew Maatman and Michael Laffin

Sheet: /POS1P8 Power Supply/

File: POS1P8_Power_Supply.kicad_sch

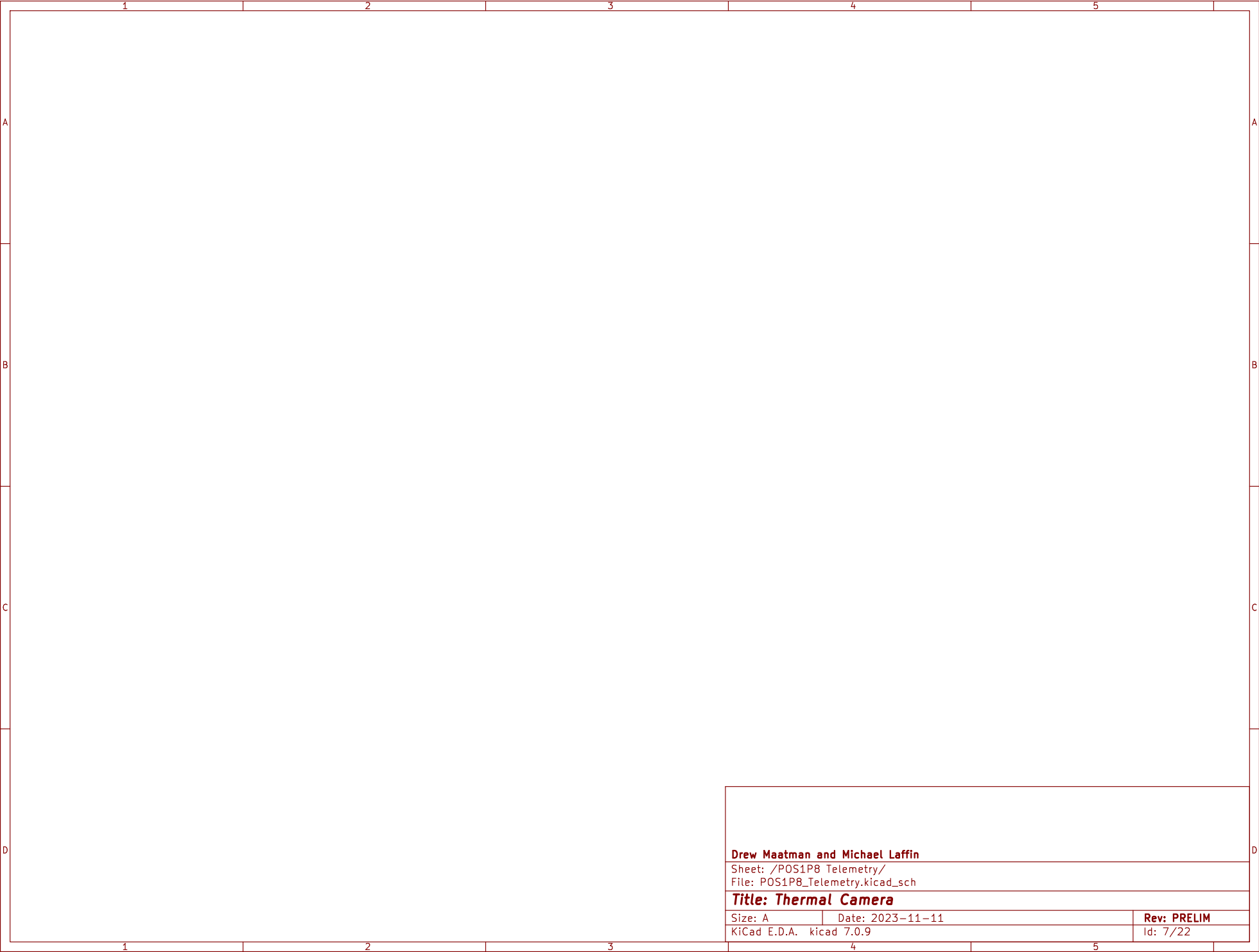
Title: Thermal Camera

Size: A Date: 2023-11-11

KiCad E.D.A. kicad 7.0.9

Rev: PRELIM

Id: 6/22

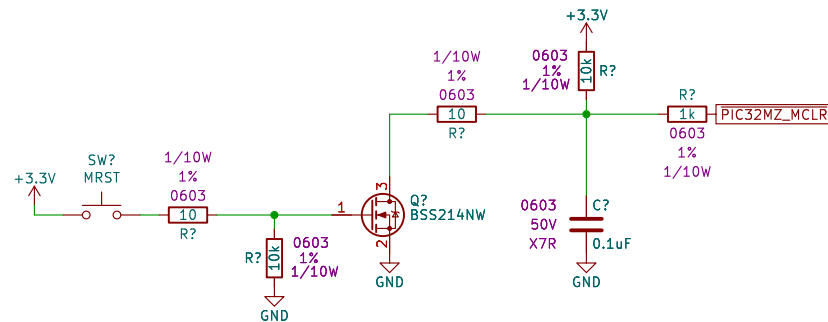


Drew Maatman and Michael Laffin		
Sheet: /POS1P8 Telemetry/ File: POS1P8_Telemetry.kicad_sch		
Title: Thermal Camera		
Size: A	Date: 2023-11-11	Rev: PRELIM
KiCad E.D.A. kicad 7.0.9		Id: 7/22

1					2					3					4					5					
A																									A
B																									B
C																									C
D																									D
1					2					3					4					5					

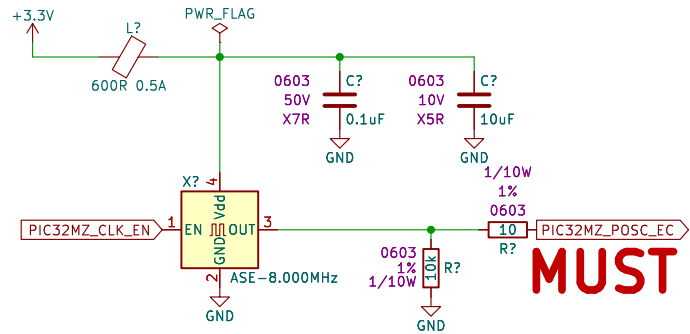
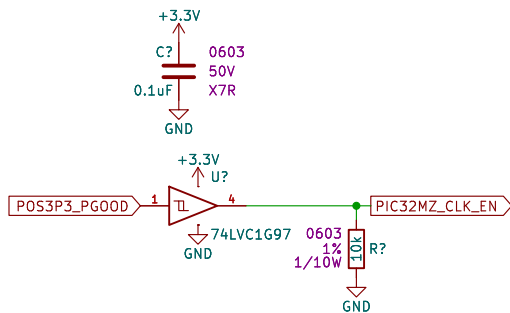
</

Drew Maatman and Michael Laffin		
Sheet: /Battery Management/		
File: Battery_Management.kicad_sch		
Title: Thermal Camera		
Size: A	Date: 2023-11-11	Rev: PRELIM
KiCad E.D.A. kicad 7.0.9		Id: 8/22

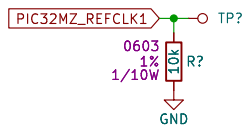
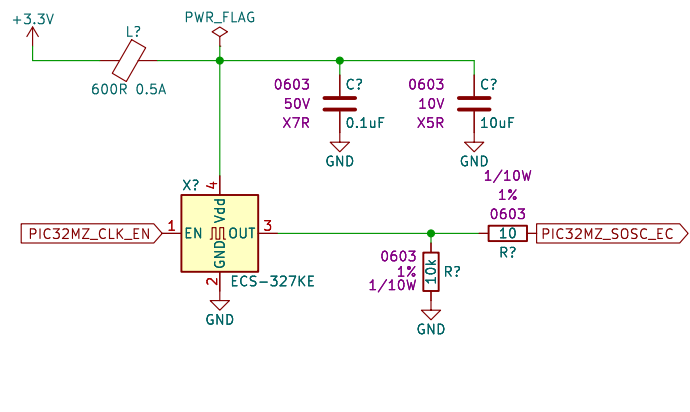


Rev: PRELIM
Id: 9/22

COPIED FROM PIC32MZ EF
FIX FOR PIC32MZ DA



MUST BE 24MHZ



Drew Maatman and Michael Laffin

Sheet: /PIC32MZ DA Clocking/

File: PIC32MZ_DA_Clocking.kicad_sch

Title: Thermal Camera

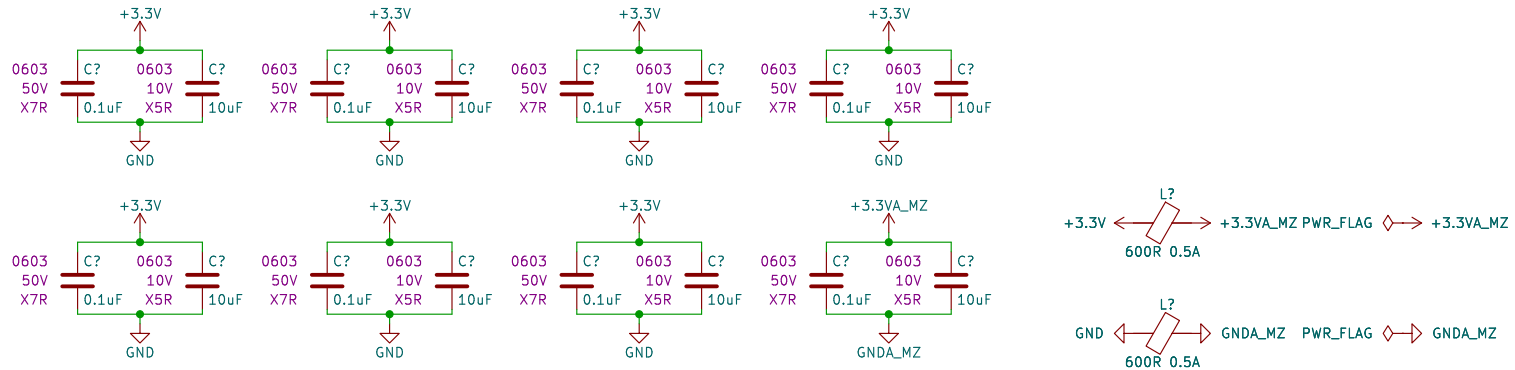
Size: A	Date: 2023-11-11
---------	------------------

Size: A	Date: 2
KiCad E.D.A.	kicad 7.0.9

Rev: PRELIM

Id: 10/22

COPIED FROM PIC32MZ EF FIX FOR PIC32MZ DA



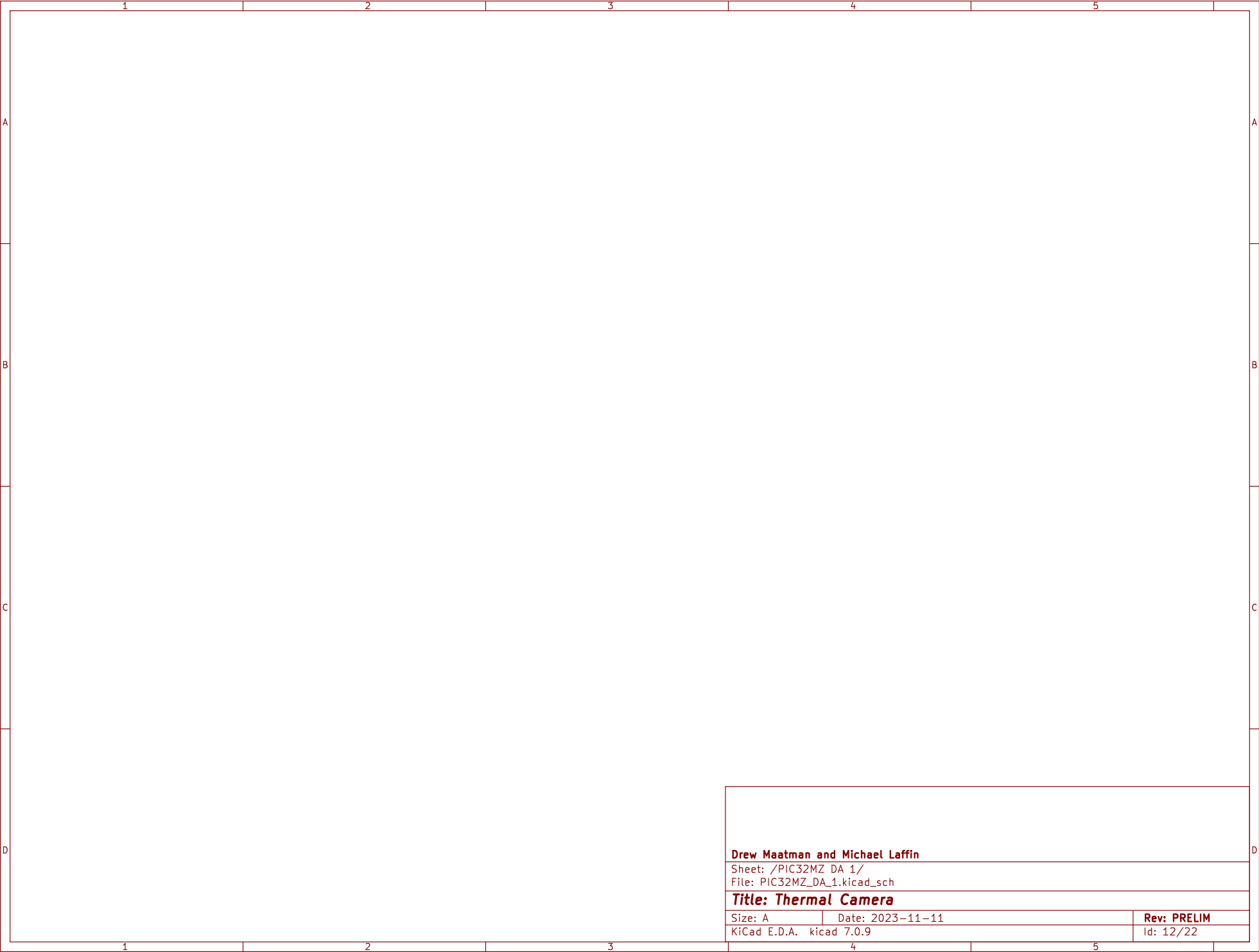
Drew Maatman and Michael Laffin

Sheet: /PIC32MZ DA Power/
File: PIC32MZ_DA_Power.kicad_sch

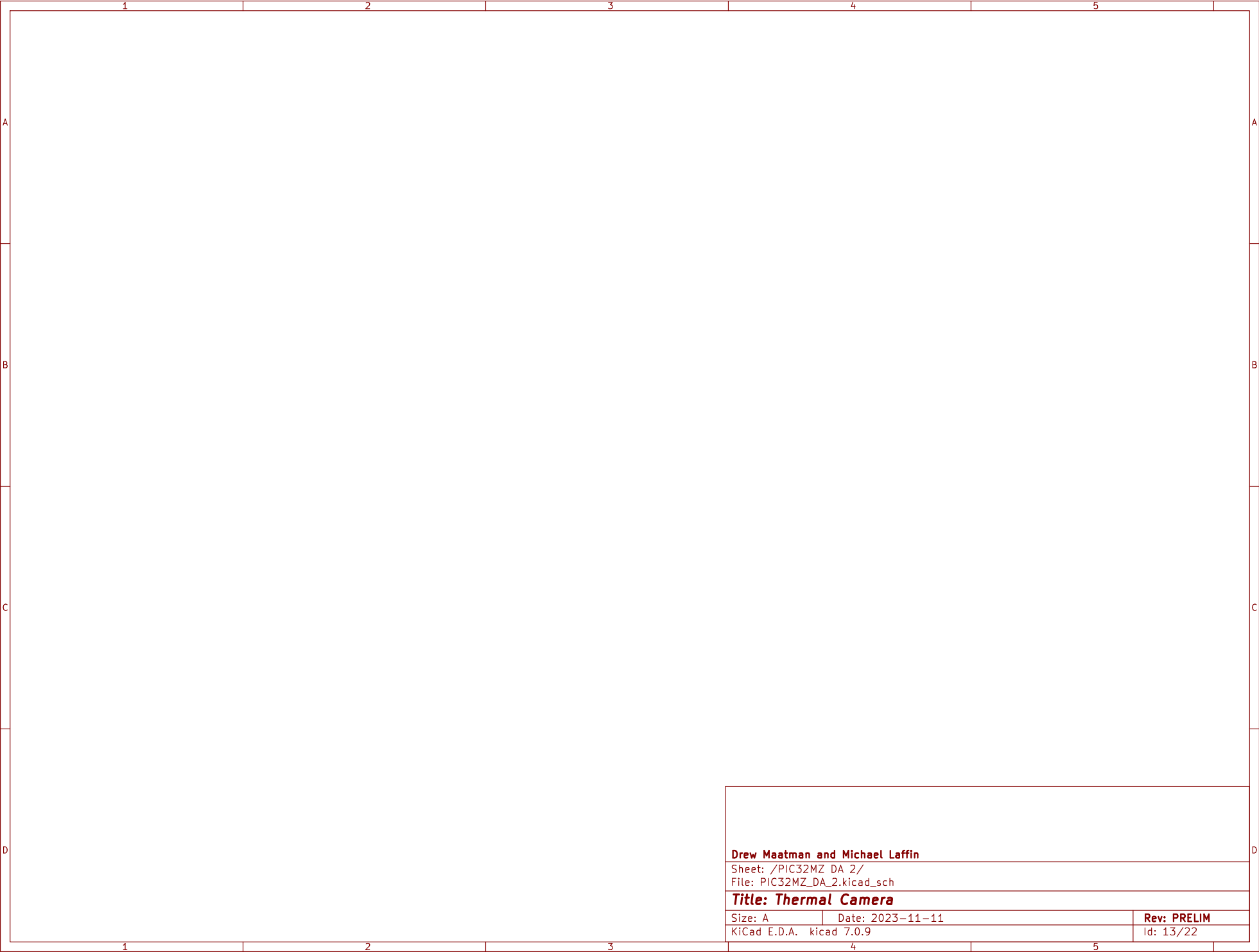
Title: Thermal Camera

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

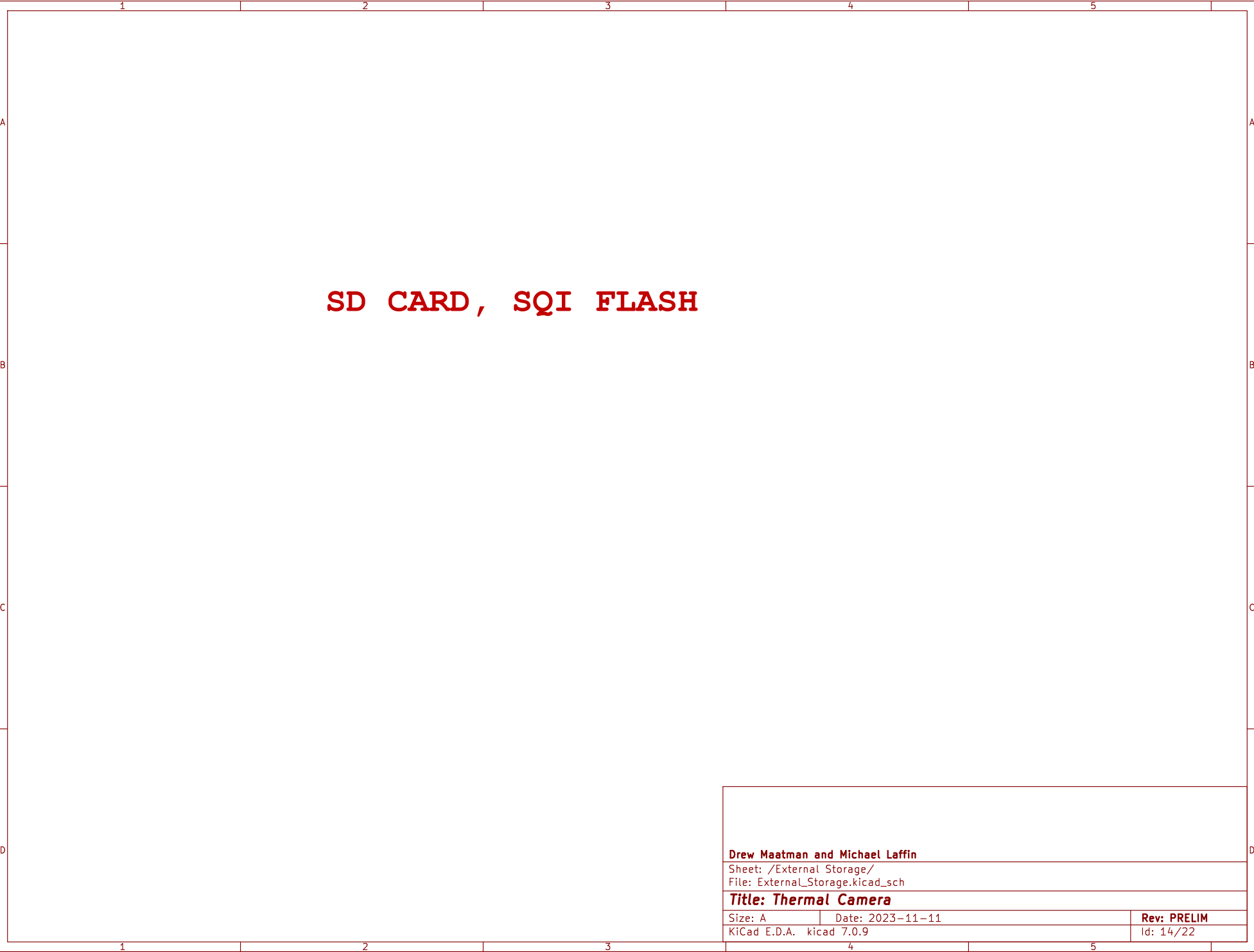
Rev: PRELIM
Id: 11/22

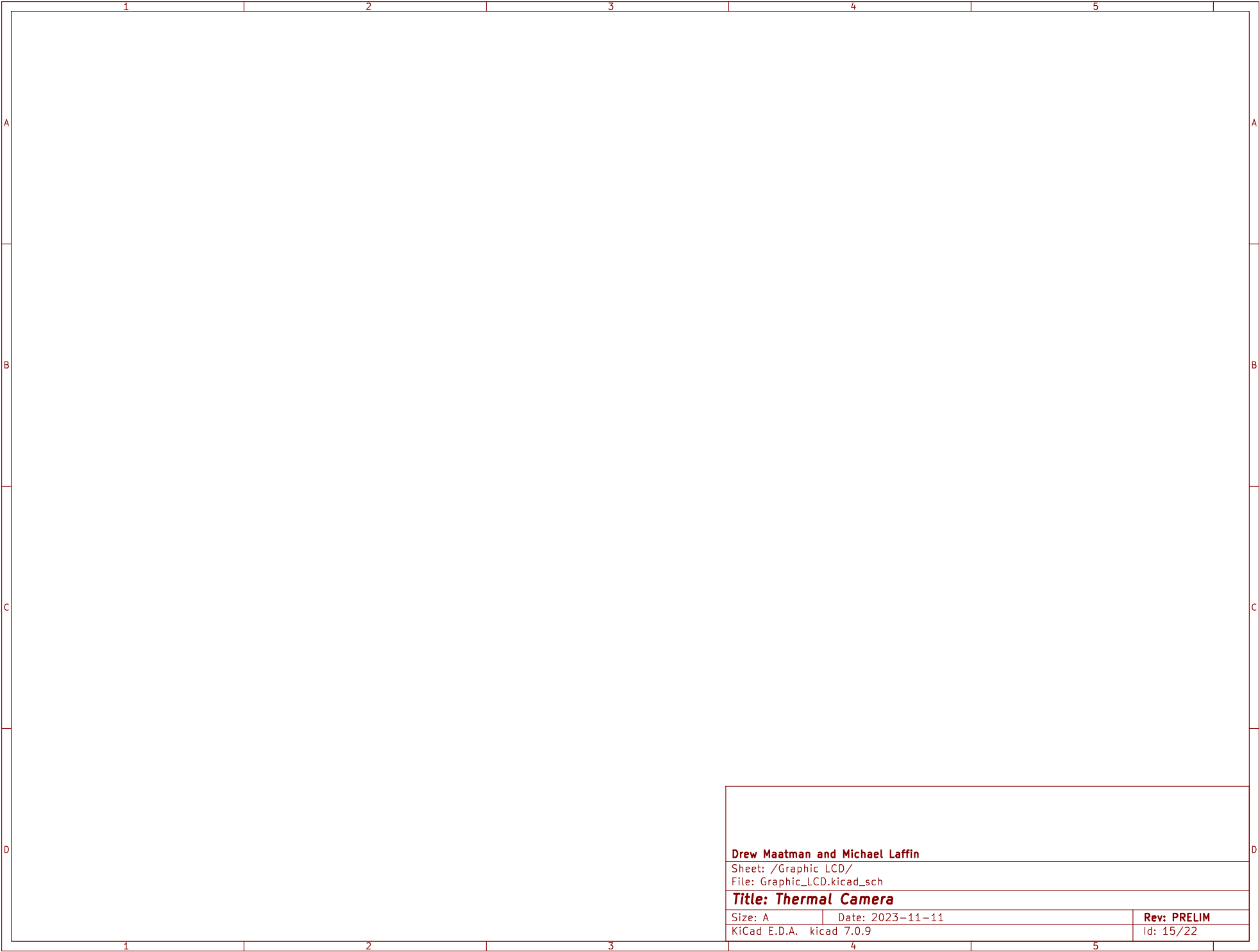


Drew Maatman and Michael Laffin		
Sheet: /PIC32MZ DA 1/ File: PIC32MZ_DA_1.kicad_sch		
Title: Thermal Camera		
Size: A	Date: 2023-11-11	Rev: PRELIM
KiCad E.D.A. kicad 7.0.9		Id: 12/22



Drew Maatman and Michael Laffin		
Sheet: /PIC32MZ DA 2/ File: PIC32MZ_DA_2.kicad_sch		
Title: Thermal Camera		
Size: A	Date: 2023-11-11	Rev: PRELIM
KiCad E.D.A. kicad 7.0.9		Id: 13/22





Drew Maatman and Michael Laffin

Sheet: /Graphic LCD/

File: Graphic_LCD.kicad_sch

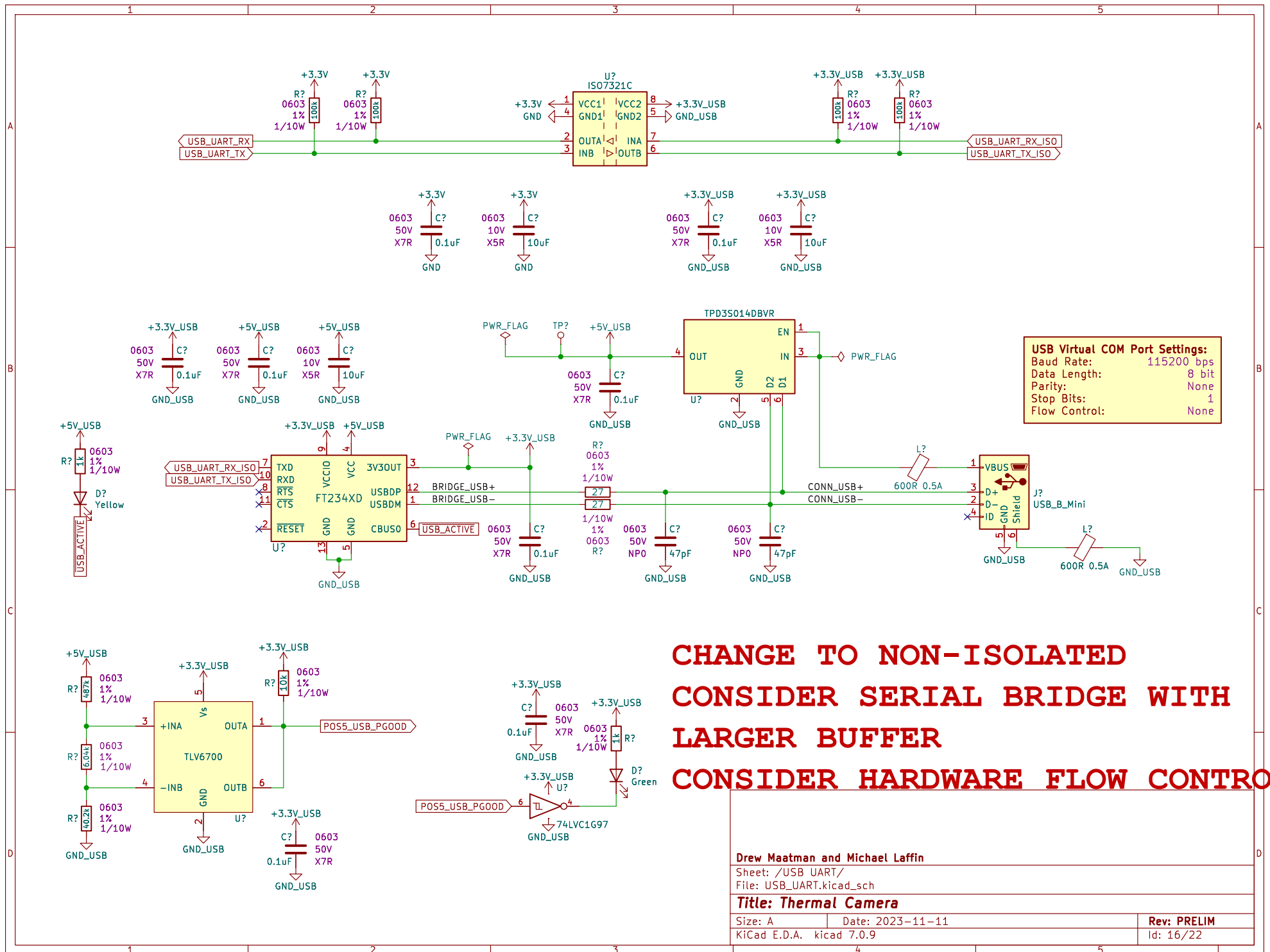
Title: Thermal Camera

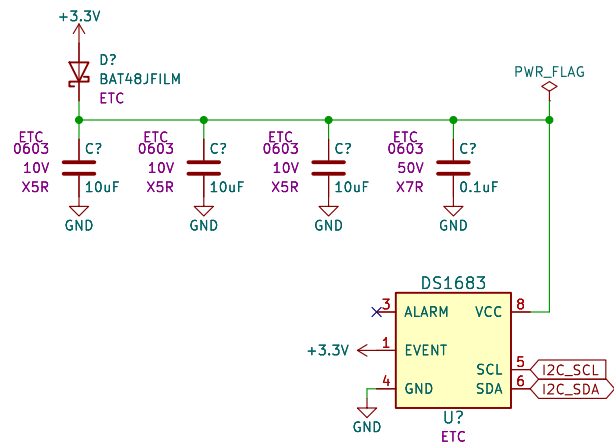
Size: A Date: 2023-11-11

KiCad E.D.A. kicad 7.0.9

Rev: PRELIM

Id: 15/22





I2C 7-Bit Address:
0x6B

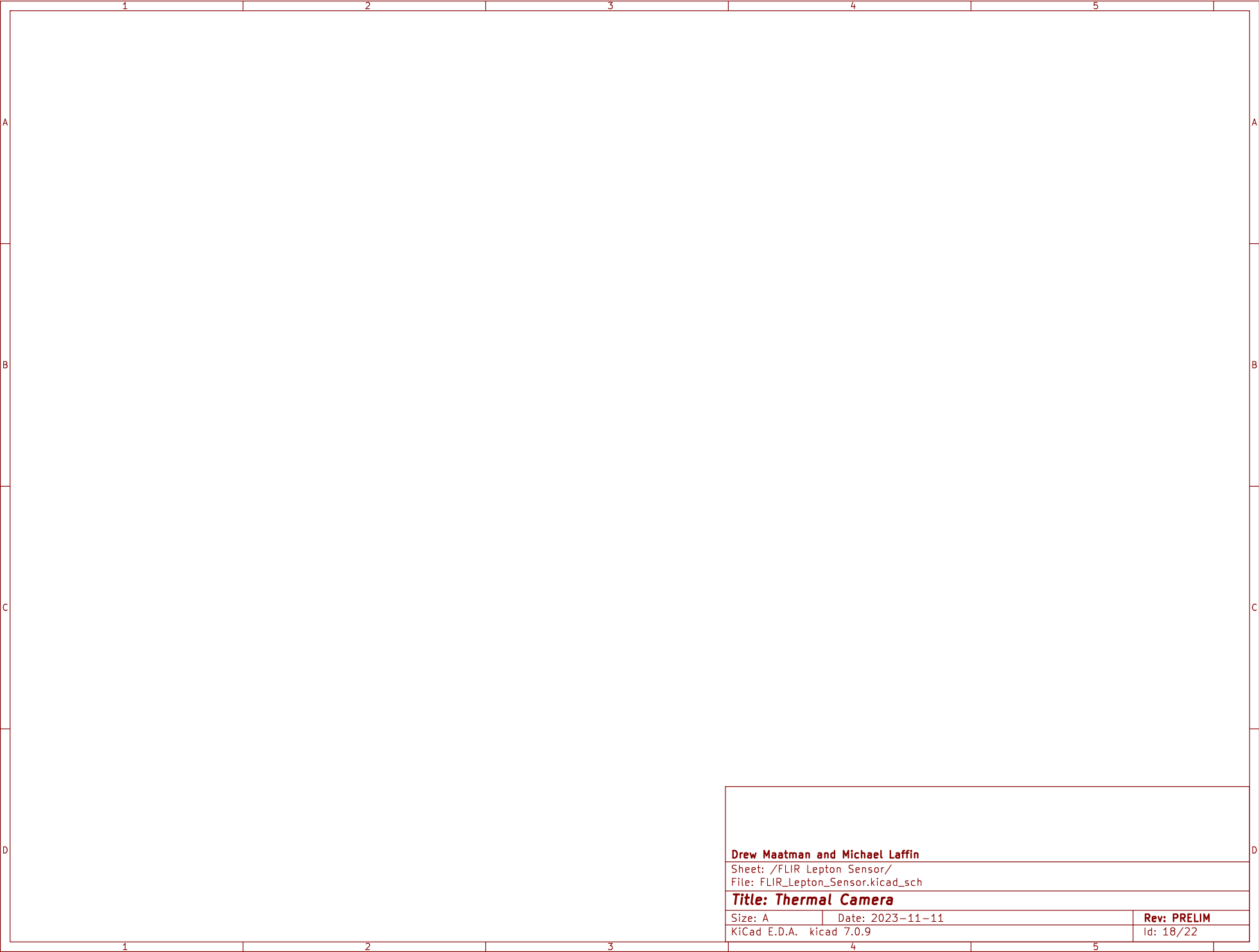
Drew Maatman and Michael Laffin

Sheet: /Elapsed Time Counter/
File: Elapsed_Time_Counter.kicad_sch

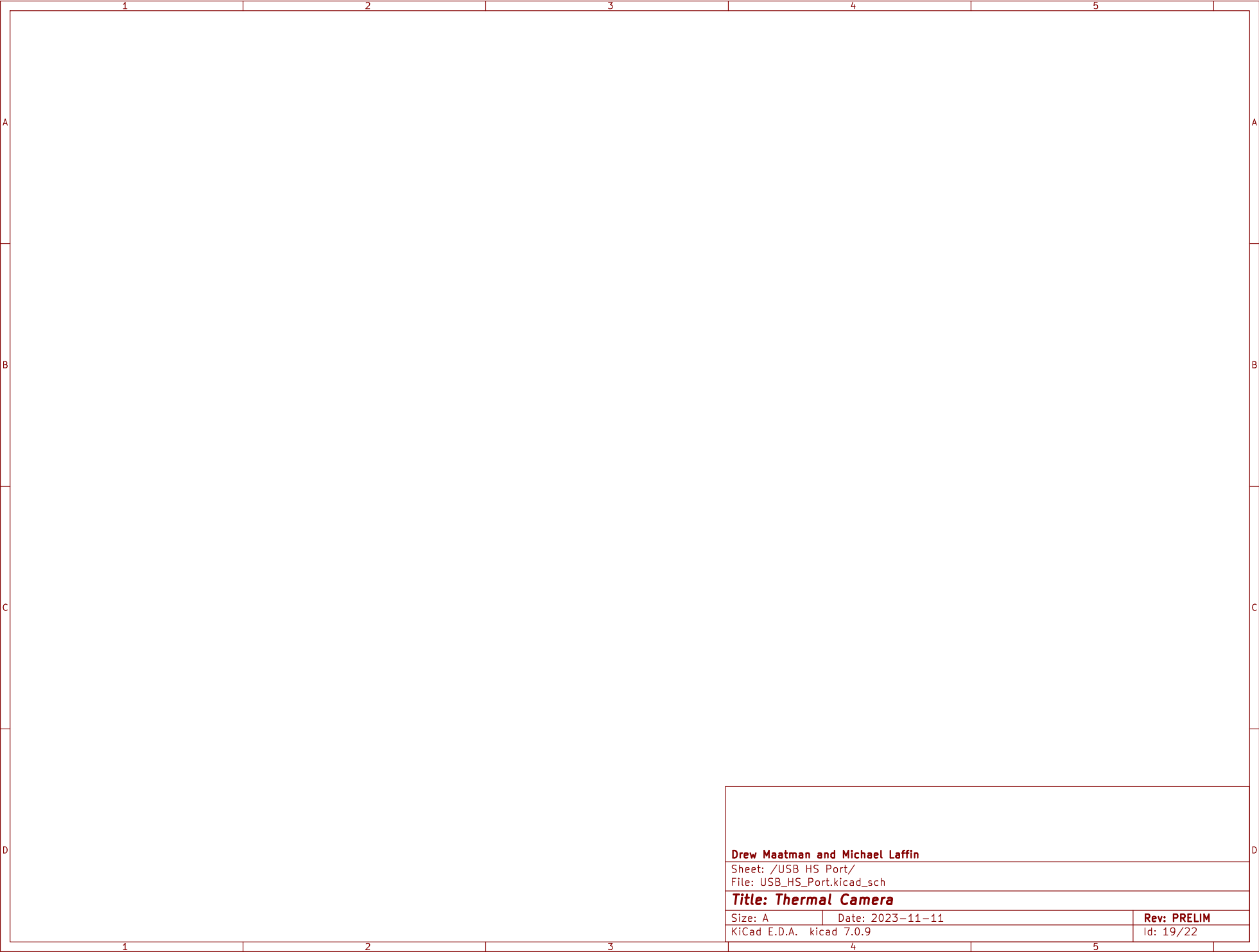
Title: Thermal Camera

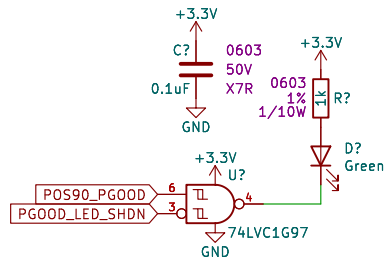
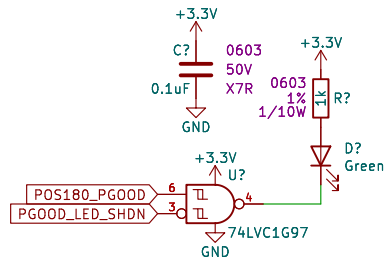
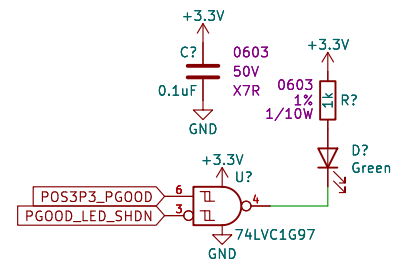
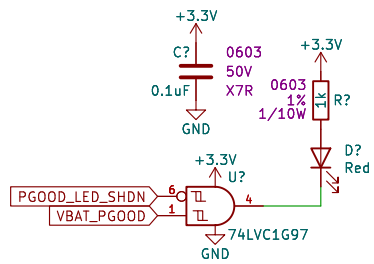
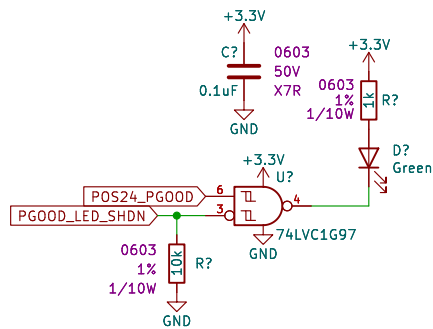
Size: A Date: 2023-11-11
KiCad E.D.A. kicad 7.0.9

Rev: PRELIM
Id: 17/22



Drew Maatman and Michael Laffin		
Sheet: /FLIR Lepton Sensor/ File: FLIR_Lepton_Sensor.kicad_sch		
Title: Thermal Camera		
Size: A	Date: 2023-11-11	Rev: PRELIM
KiCad E.D.A. kicad 7.0.9		Id: 18/22





Drew Maatman and Michael Laffin

Sheet: /PGOOD LEDs/

File: PGOOD_LEDS.kicad_sch

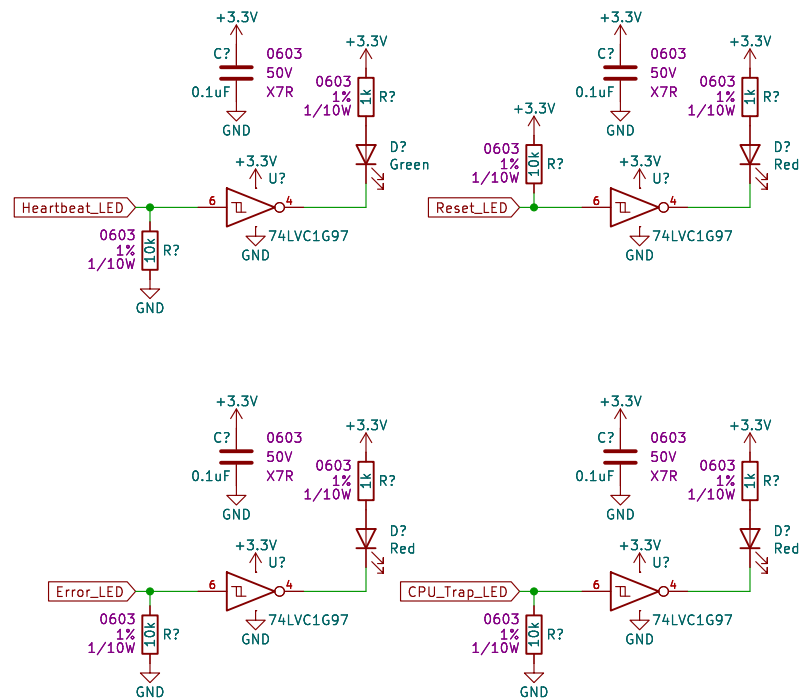
Title: Thermal Camera

Size: A Date: 2023-11-11

KiCad E.D.A. kicad 7.0.9

Rev: PRELIM

Id: 20/22



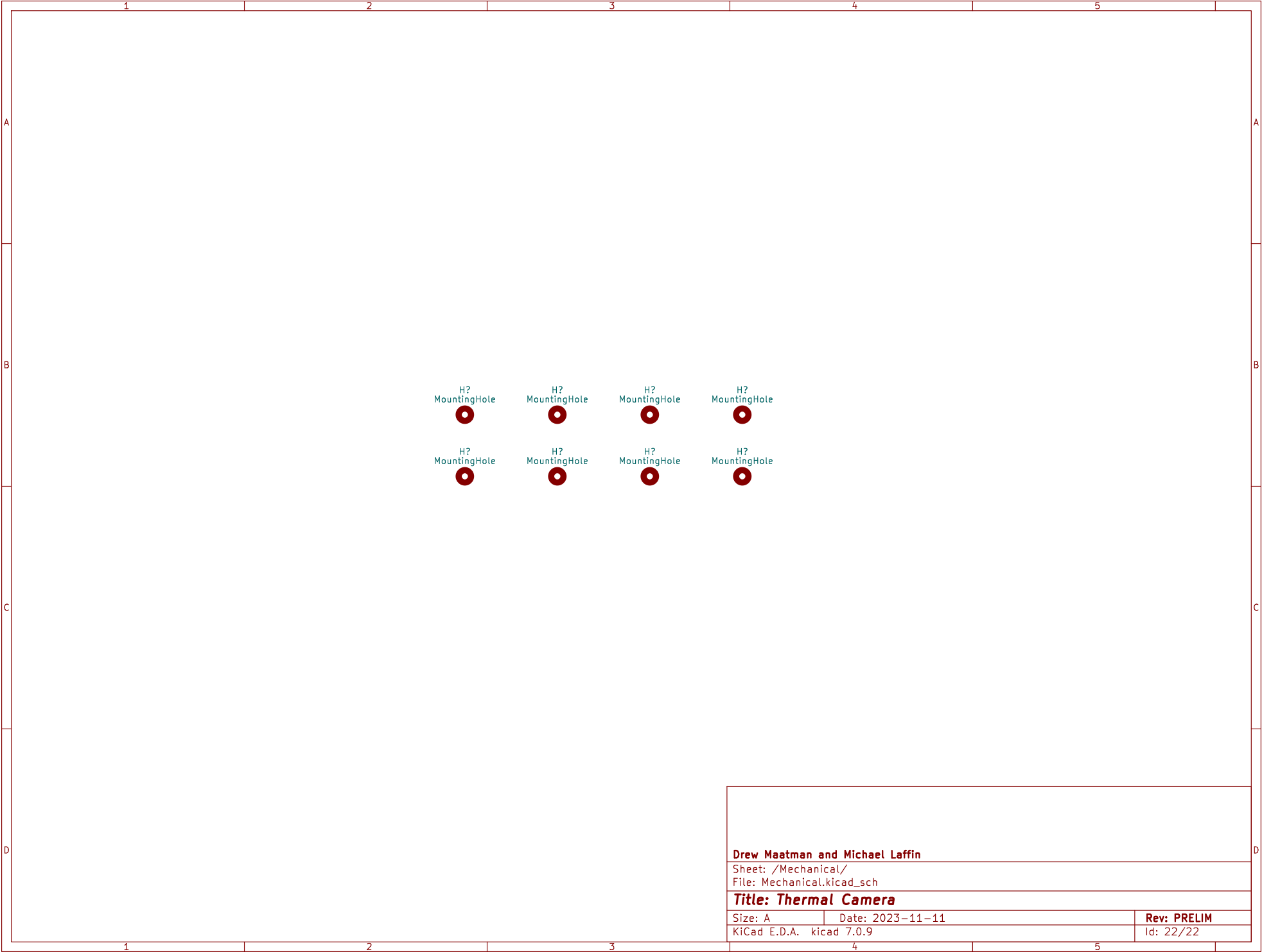
Drew Maatman and Michael Laffin

Sheet: /Status LEDs/
File: Status_LEDs.kicad_sch

Title: Thermal Camera

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

Rev: PRELIM
Id: 21/22



Drew Maatman and Michael Laffin

Sheet: /Mechanical/
File: Mechanical.kicad_sch

Title: Thermal Camera

Size: A Date: 2023-11-11

KiCad E.D.A. kicad 7.0.9

Rev: PRELIM

Id: 22/22