

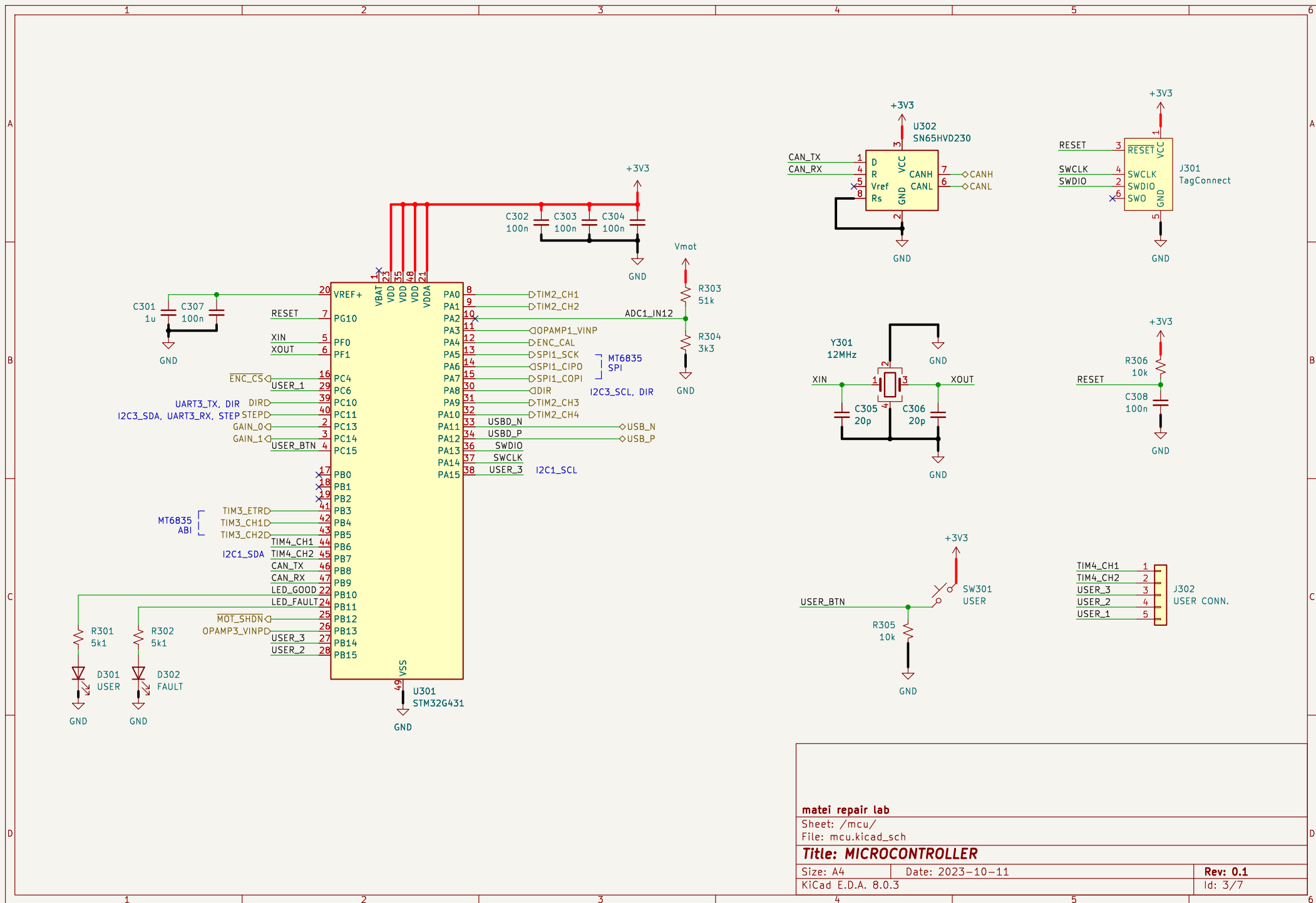
matei repair lab

Sheet: /usb/
File: usb.kicad_sch

Title: USB & ESD

Size: A4 Date: 2023-10-11
KiCad E.D.A. 8.0.3

Rev: 0.1
Id: 2/7



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Sheet: /mcu/
File: mcu.kicad_sch

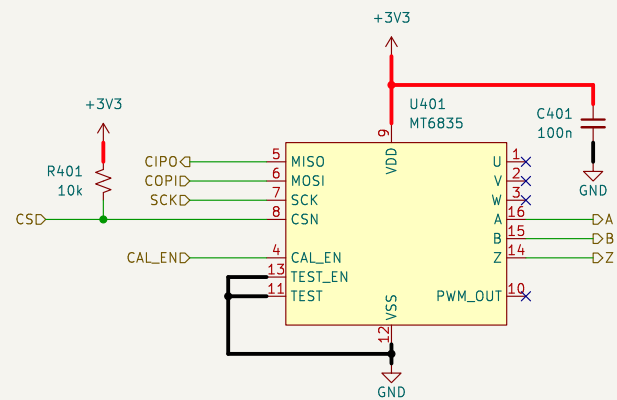
Title: MICROCONTROLLER

Size: A4
KiCad E.D.A. 8.0.3

Date: 2023-10-11

Rev: 0.1

Id: 3/7



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Sheet: /encoder/

File: encoder.kicad_sch

Title: MAGNETIC ENCODER 14 BIT

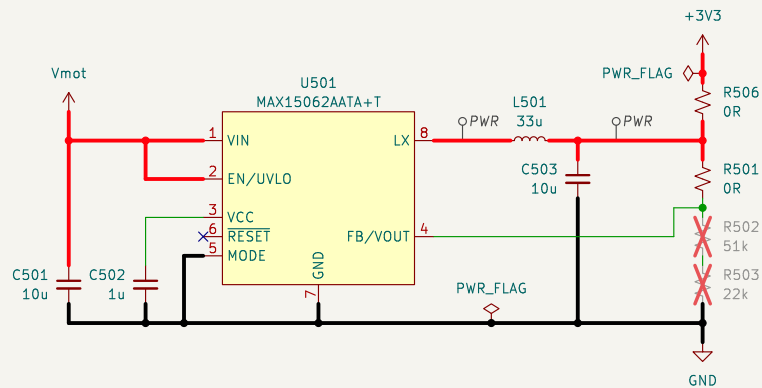
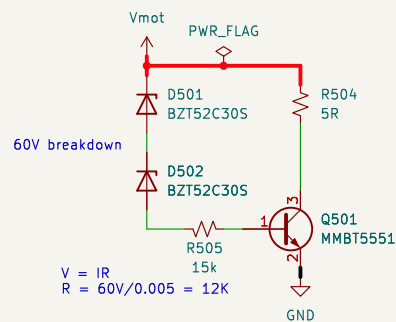
Size: A4

Date: 2023-10-11

Rev: 0.1

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Id: 4/7



For MAX15062AATA+T (C2846801):
 R501: 0R
 R502, R503: DNP

For MAX15062CATA+T (C1121853):
 R501: 200k
 R502, R503: 51k, 22k

$R_a = R_b(V_{out}/0.9 - 1)$
 3.36V (closest to 3v3 with basic parts)

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Sheet: /psu/
 File: psu.kicad_sch

Title: POWER SUPPLY & FILTERING

Size: A4

Date: 2023-10-11

Rev: 0.1

KiCad E.D.A. 8.0.3

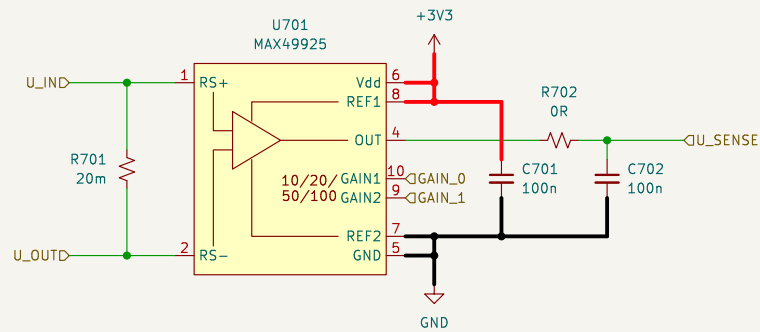
Id: 6/7



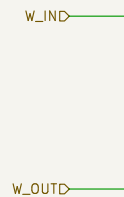
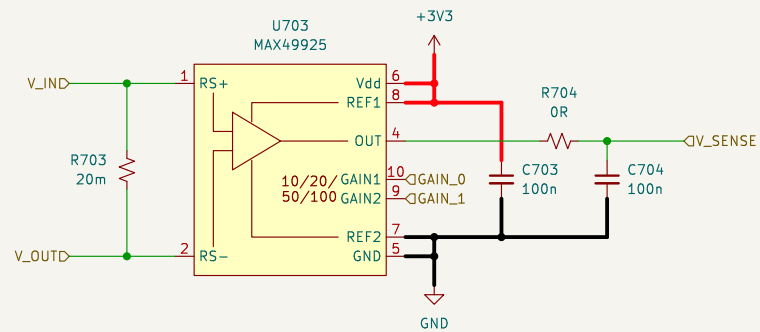
Size: A4	
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Rev:

Id: 7/7



$V = IR$
 $2.9V \text{ ADC } V_{RefBuff} / 20 \Rightarrow 0.145V \text{ input}$
 $R = 0.145V / 2A \Rightarrow 72m \text{ sense resistor}$
 $P = 0.145 * 2 \Rightarrow 300mW \text{ rating}$



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Sheet: /current sense/
File: currentsense.kicad_sch

Title: HALL CURRENT SENSING

Size: A4 Date: 2023-10-11

KiCad E.D.A. 8.0.3

Rev: 0.1

Id: 8/7