

**matei repair lab**

Sheet: /

File: lemon-pepper.kicad\_sch

**Title: LEMON PEPPER STEPPER**

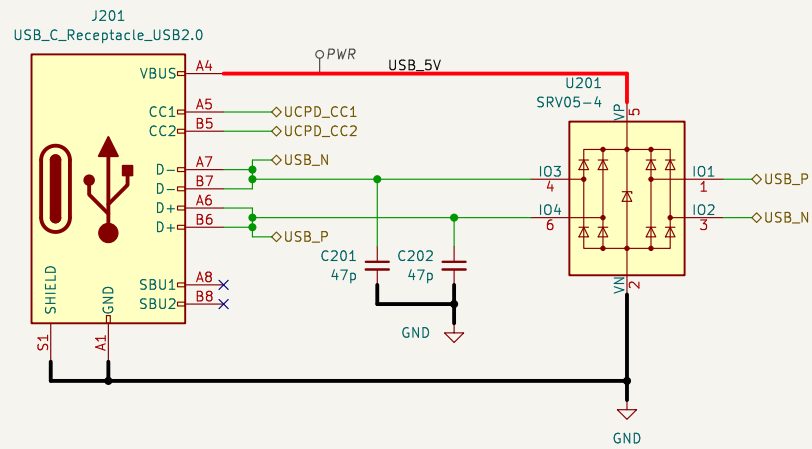
Size: A4

Date: 2023-10-11

KiCad E.D.A. 8.0.3

**Rev: 0.1**

Id: 1/7



**matei repair lab**

Sheet: /usb/  
File: usb.kicad\_sch

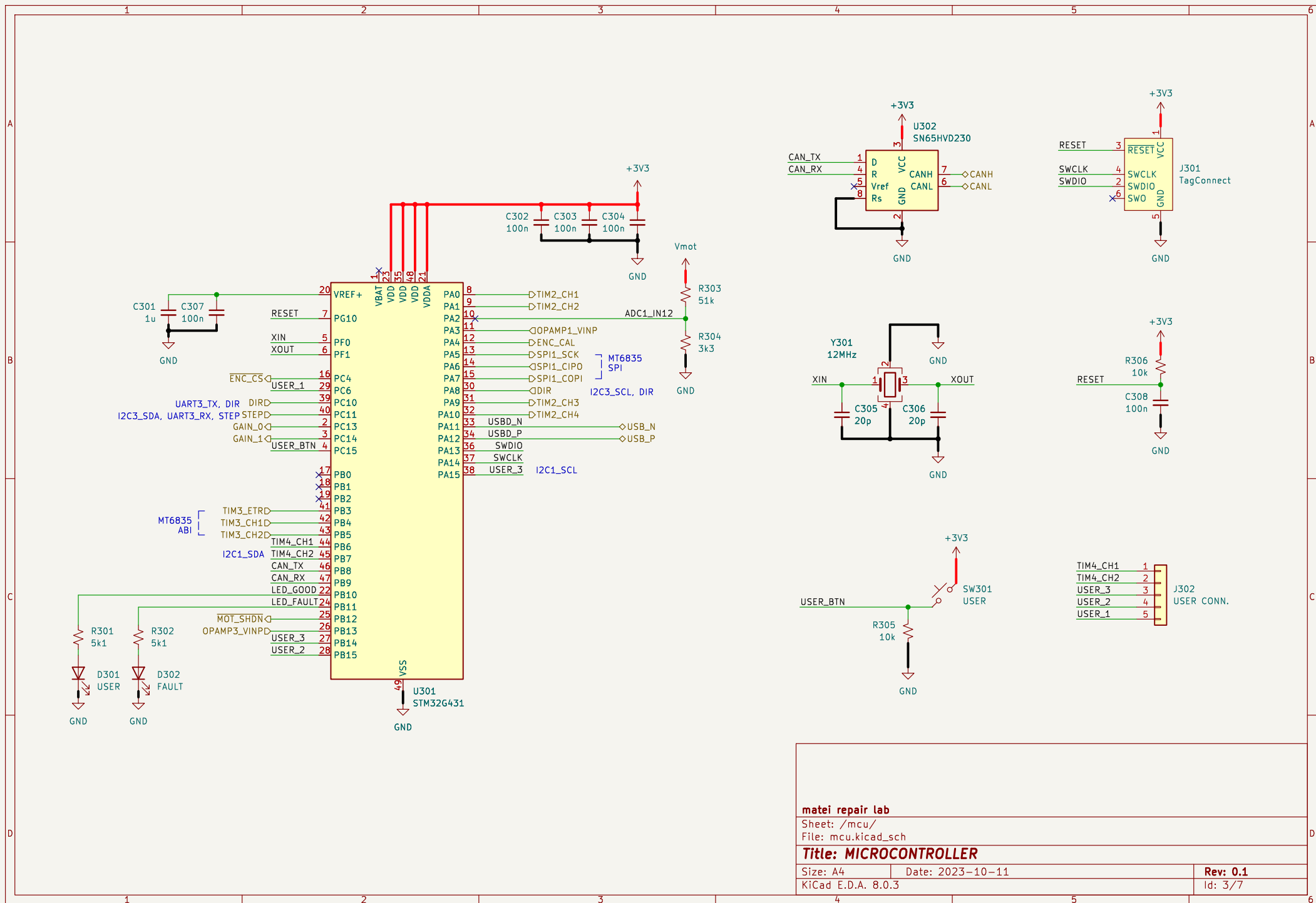
**Title: USB & ESD**

Size: A4 Date: 2023-10-11

KiCad E.D.A. 8.0.3

**Rev: 0.1**

Id: 2/7



matei repair lab

Sheet: /mcu/  
File: mcu.kicad\_sch

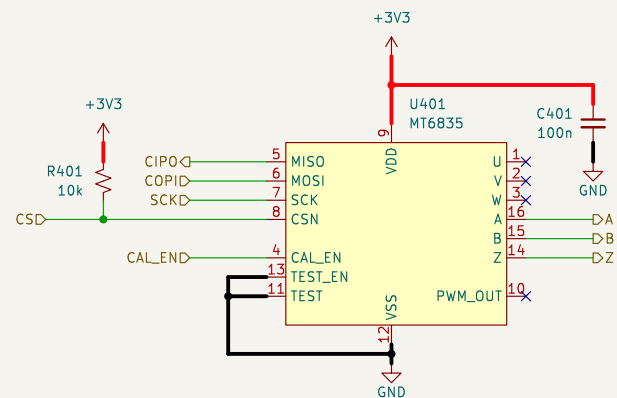
Title: MICROCONTROLLER

Size: A4  
KiCad E.D.A. 8.0.3

Date: 2023-10-11

Rev: 0.1

Id: 3/7



matei repair lab

Sheet: /encoder/

File: encoder.kicad\_sch

**Title: MAGNETIC ENCODER 14 BIT**

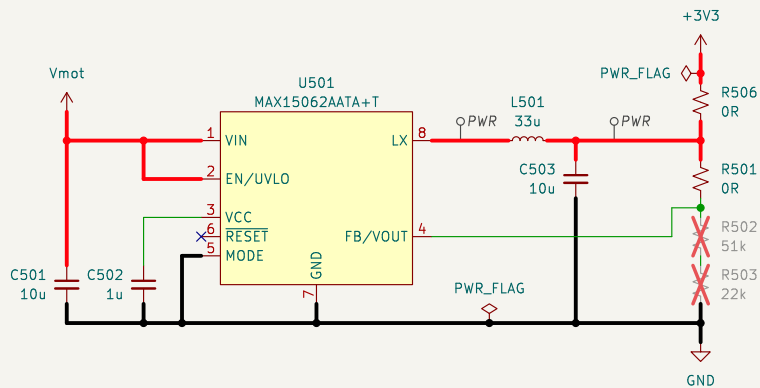
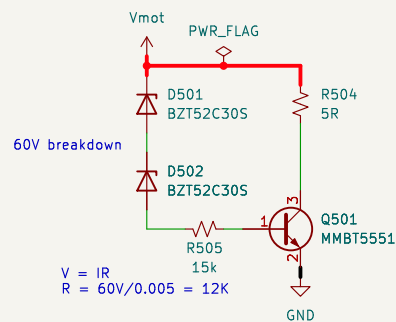
Size: A4

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)

**matei repair lab**

Sheet: /psu/  
 File: psu.kicad\_sch

**Title: POWER SUPPLY & FILTERING**

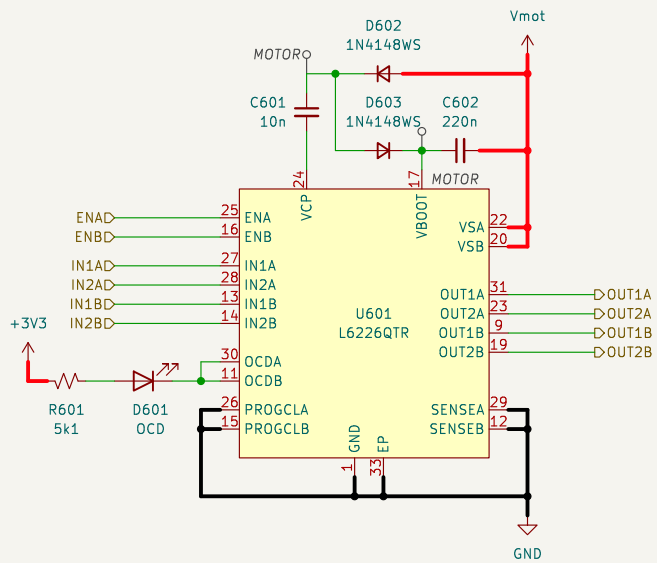
Size: A4

Date: 2023-10-11

Rev: 0.1

KiCad E.D.A. 8.0.3

Id: 6/7



Sheet: /half bridges/  
File: halfbridges.kicad\_sch

**Title:**

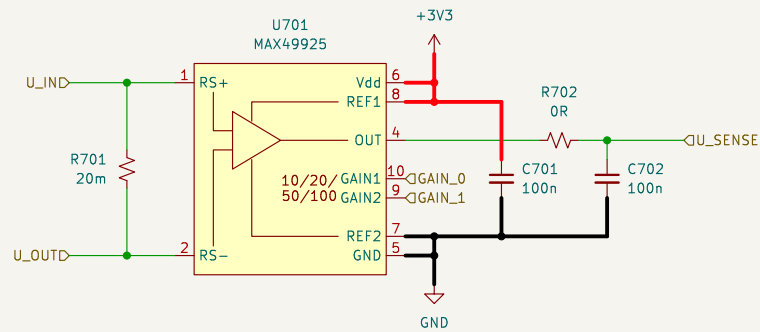
Size: A4

Date:

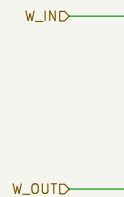
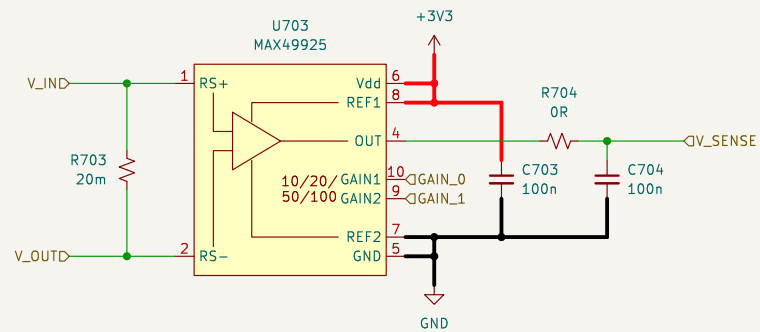
KiCad E.D.A. 8.0.3

**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