

matei repair lab

Sheet: /usb/
File: usb.kicad_sch

Title: USB & ESD

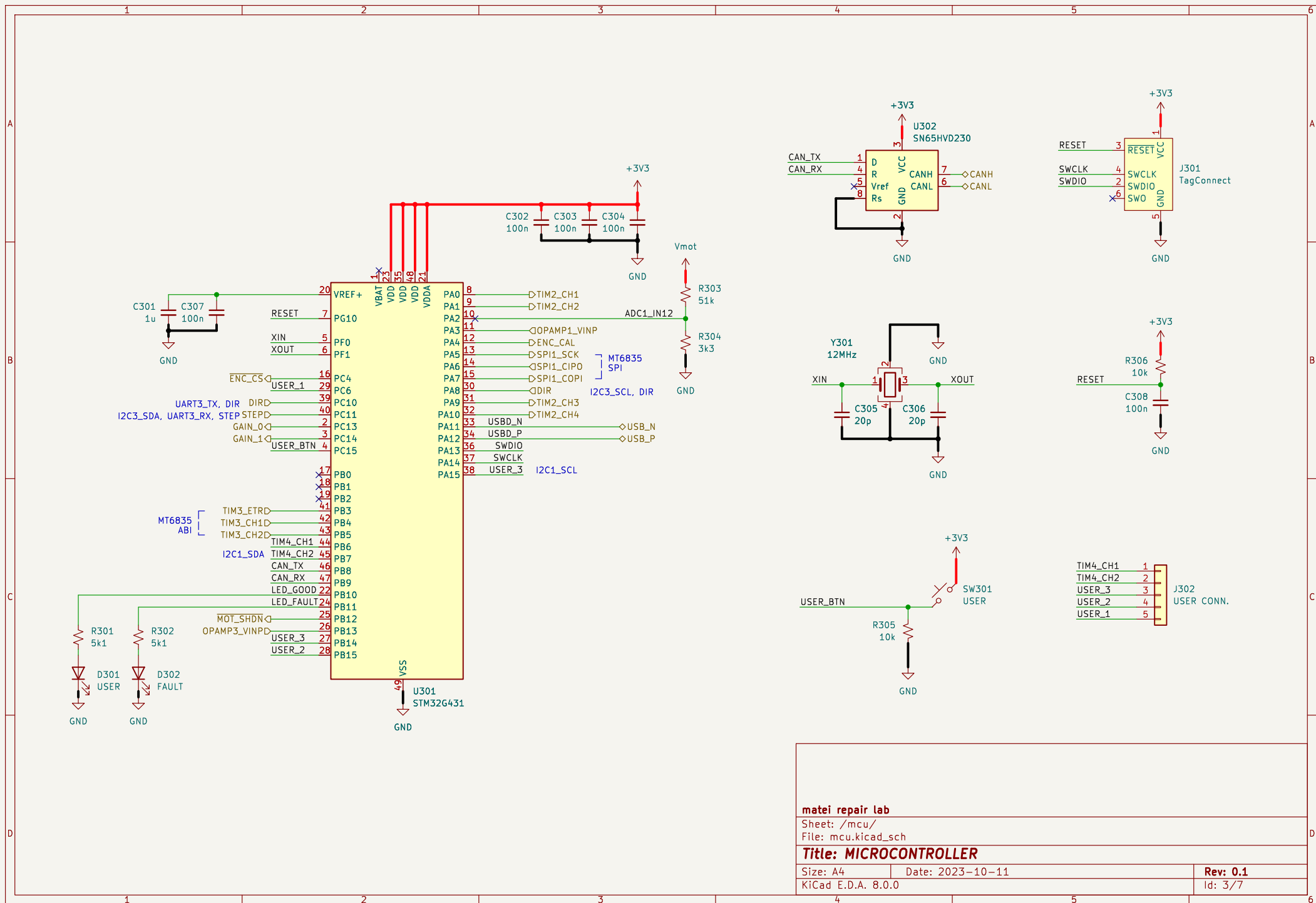
Size: A4

Date: 2023-10-11

Rev: 0.1

KiCad E.D.A. 8.0.0

Id: 2/7



matei repair lab

Sheet: /mcu/
File: mcu.kicad_sch

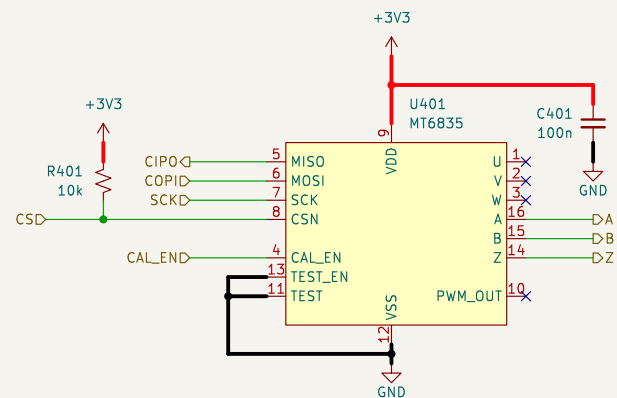
Title: MICROCONTROLLER

Size: A4 Date: 2023-10-11

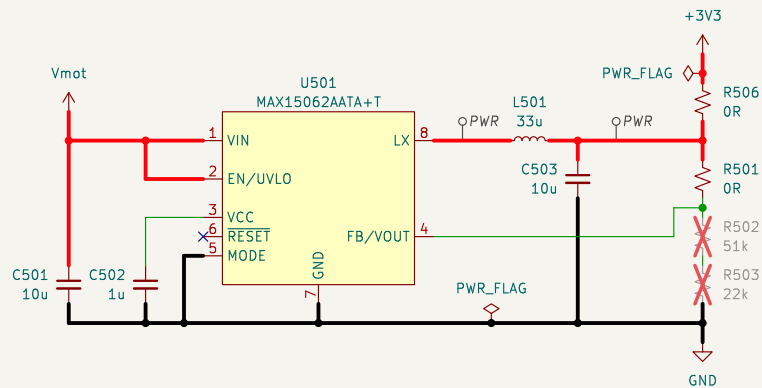
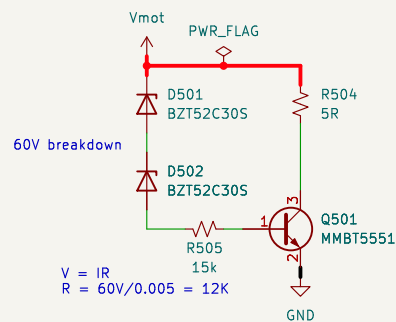
KiCad E.D.A. 8.0.0

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
KiCad E.D.A. 8.0.0	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

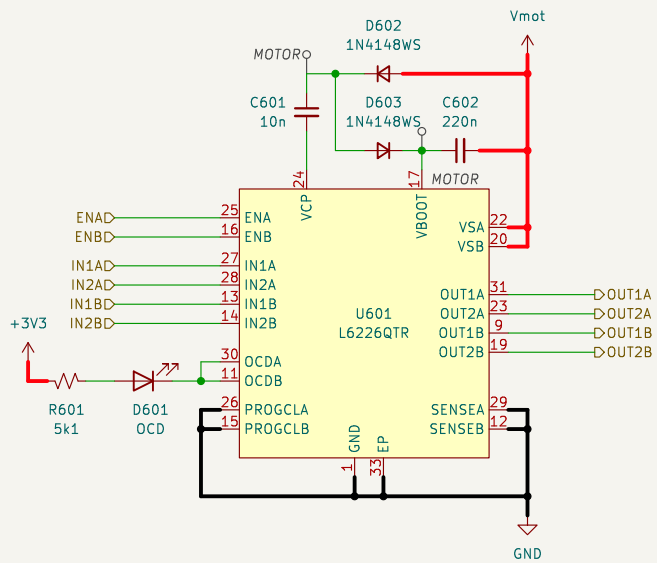
Size: A4

Date: 2023-10-11

Rev: 0.1

KiCad E.D.A. 8.0.0

Id: 6/7



Sheet: /half bridges/
File: halfbridges.kicad_sch

Title:

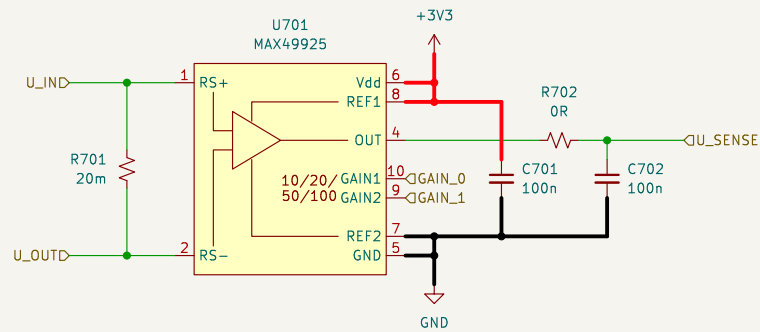
Size: A4

Date:

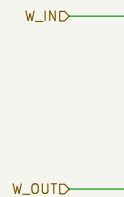
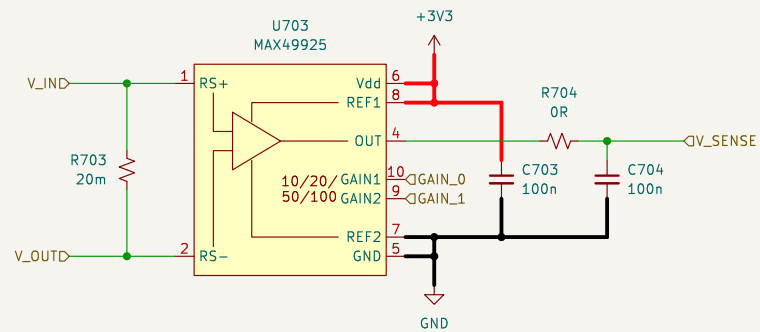
KiCad E.D.A. 8.0.0

Rev:

Id: 7/7



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



matei repair lab

Sheet: /current sense/
 File: currentsense.kicad_sch

Title: HALL CURRENT SENSING

Size: A4 Date: 2023-10-11

KiCad E.D.A. 8.0.0

Rev: 0.1

Id: 8/7