

**matei repair lab**

Sheet: /

File: lemon-pepper.kicad\_sch

**Title: LEMON PEPPER STEPPER**

Size: A4

Date: 2023-10-11

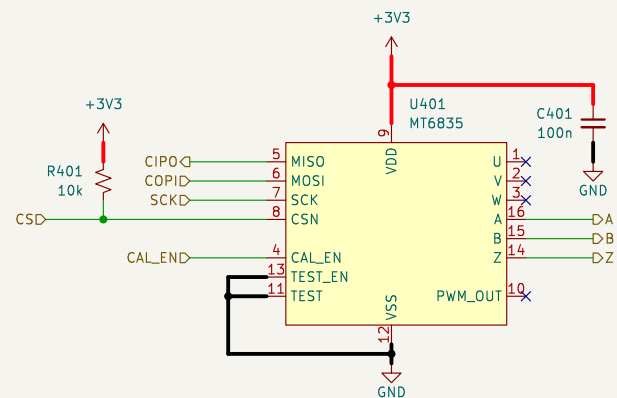
KiCad E.D.A. 8.0.0

**Rev: 0.1**

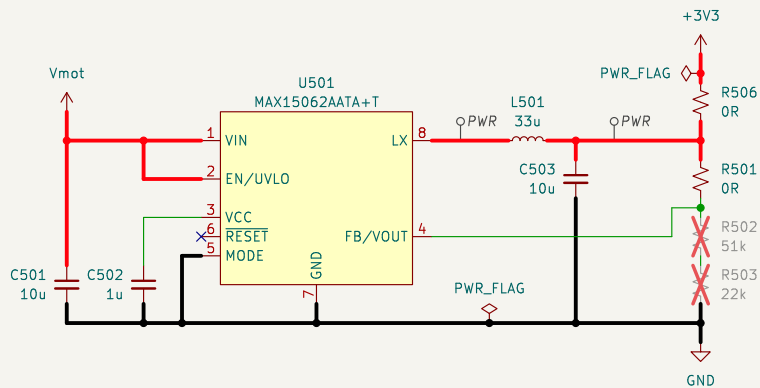
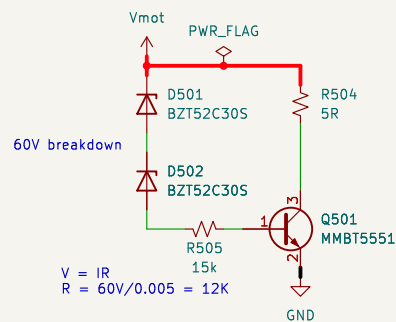
Id: 1/7

Id: 2/7





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	



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

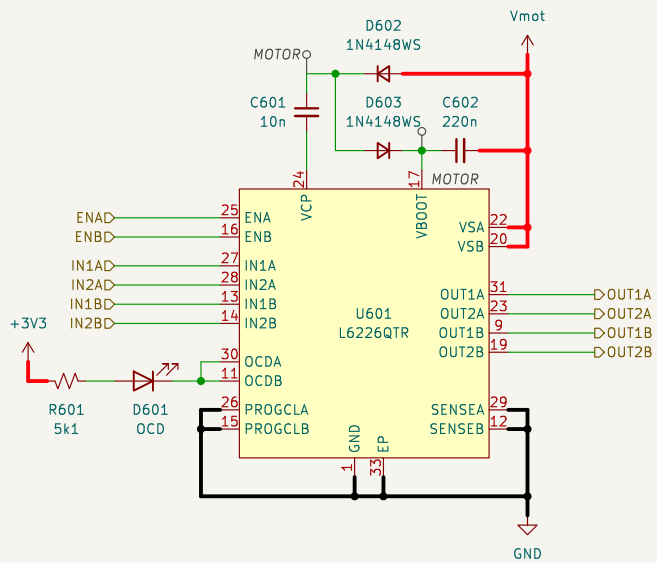
**Title: POWER SUPPLY & FILTERING**

Size: A4  
KiCad E.D.A. 8.0.0

Date: 2023-10-11

Rev: 0.1

Id: 6/7



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

**Title:**

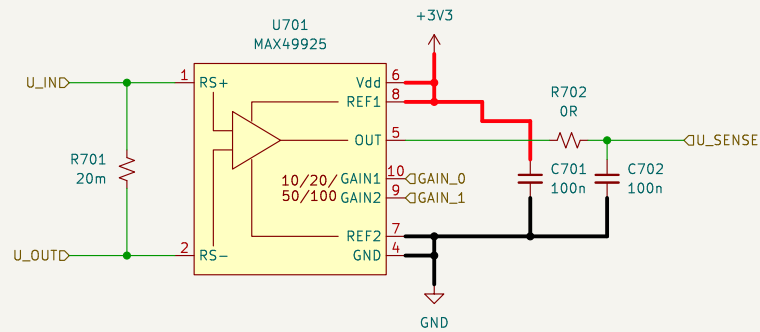
Size: A4

Date:

KiCad E.D.A. 8.0.0

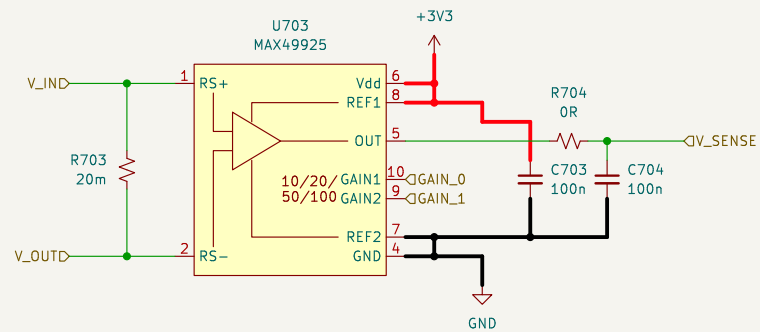
**Rev:**

Id: 7/7

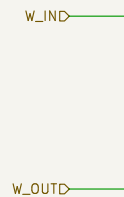
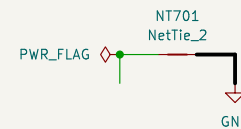


$V = IR$   
 $2.9V \text{ ADC } V_{RefBuff} / 20 \Rightarrow 0.145V \text{ input}$   
 $R = 0.145V / 2A \Rightarrow 72m \text{ sense resistor}$   
 $P = 0.145 * 2 \Rightarrow 300mW \text{ rating}$

Gain 50V/V  
 $2.9 / 50 \Rightarrow 58mV \text{ full range}$   
 $2 * 0.020 \Rightarrow 40mV$   
 $0.04 * 2 = 80mW$



join at power connector



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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. 8.0.0

Rev: 0.1

Id: 8/7