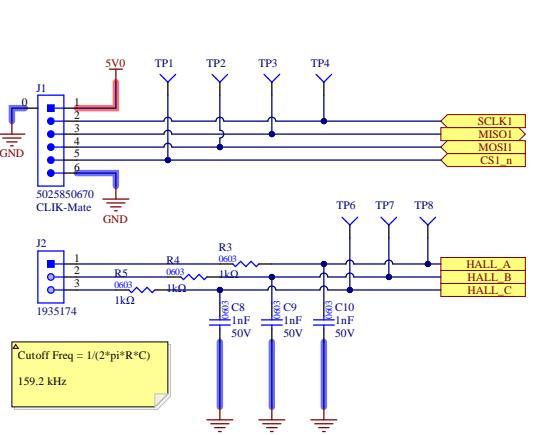
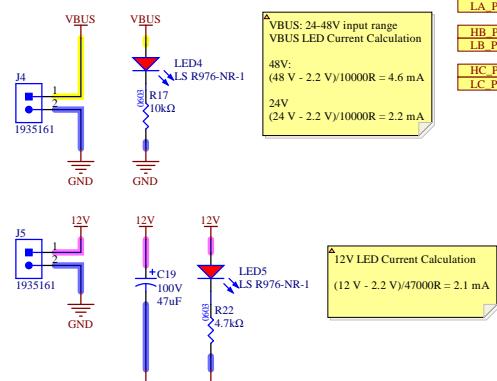


# 3 PHASE GATE DRIVER

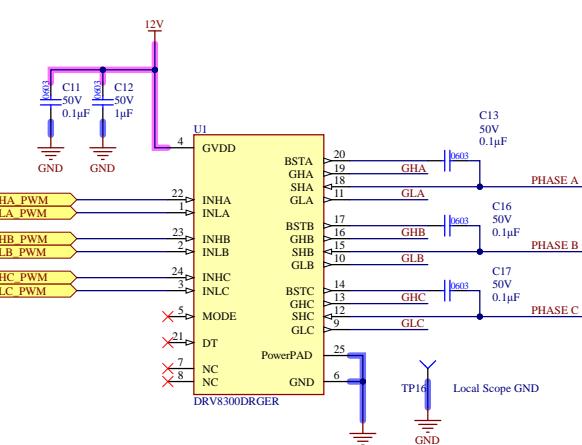
## HALL SENSOR/ENCODER INPUTS



## POWER INPUTS

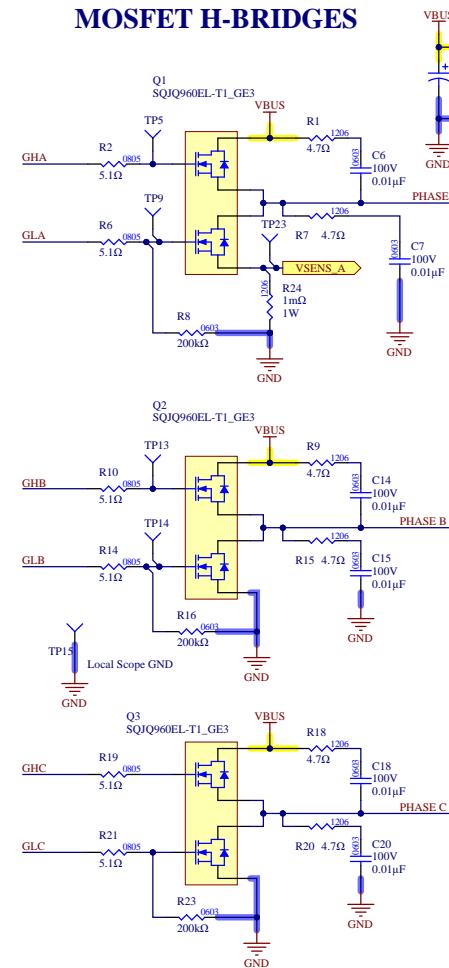


## MOSFET DRIVER

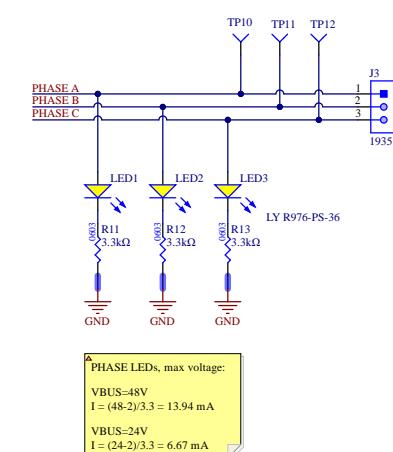


## MOSFET/DRIVER Calculations

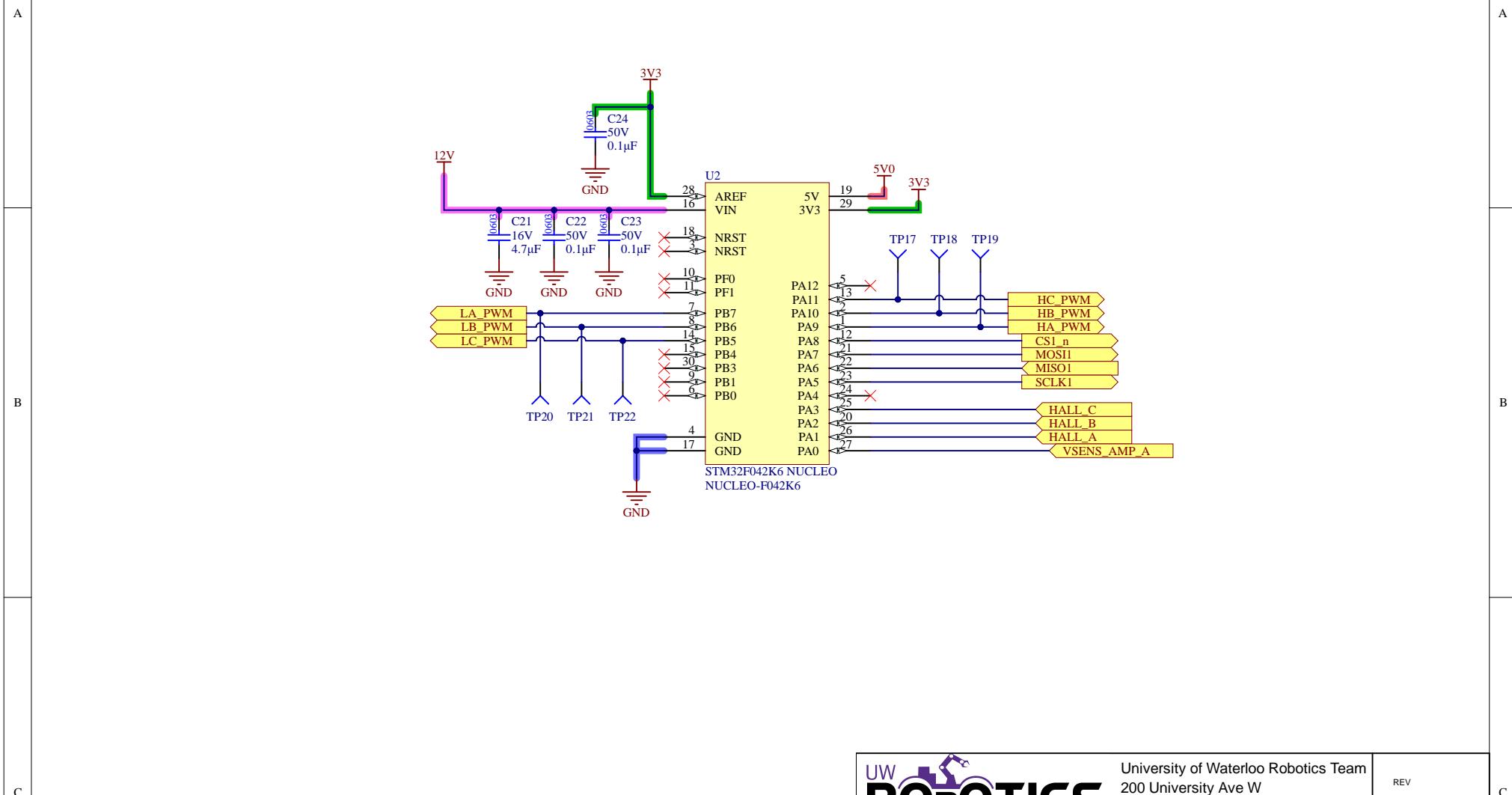
## MOSFET H-BRIDGES



## MOTOR OUTPUTS



# MCU



University of Waterloo Robotics Team  
200 University Ave W  
Waterloo, Ontario, Canada  
N2L 3G1

REV  
1.1

PROJECT  
BLDC Gate Driver Breakout.PjPcb, [No Variations]

DOCUMENT  
MCU.SchDoc

MODIFIED  
2022-01-23

ENGINEER

JGao

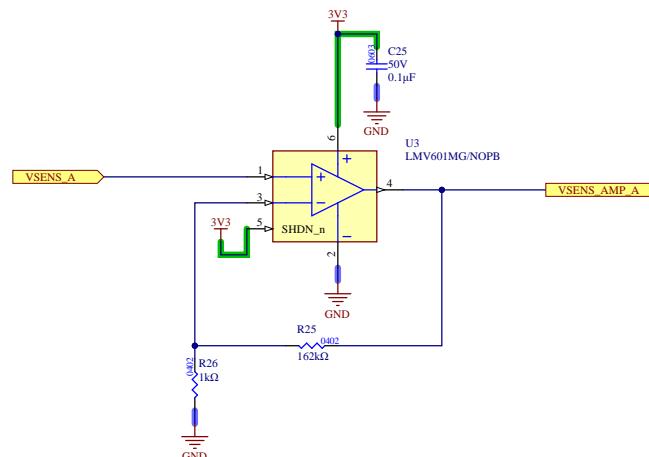
REVIEWER

\*

SHEET 2 OF 3

# Current Sense Amplification

Current Sense Range: 0A - 20A  
 @ 20A, VSENS = 20mV  
 Non-inverting Amplifier:  
 $A_v = 1 + 162/1 = 163$   
 Corresponding Output Voltage Range: 0V - 3.26V



<b>ROBOTICS TEAM</b>		University of Waterloo Robotics Team 200 University Ave W Waterloo, Ontario, Canada N2L 3G1	REV 1.1
PROJECT <b>BLDC Gate Driver Breakout.PnjPcb, [No Variations]</b>			
DOCUMENT <b>SENSE_AMP.SchDoc</b>		MODIFIED 2022-01-23	
ENGINEER <b>JGao</b>	REVIEWER •	SHEET <b>3 OF 3</b>	