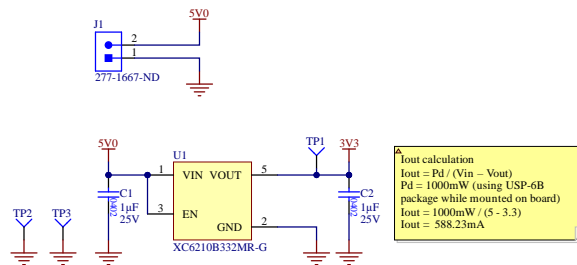

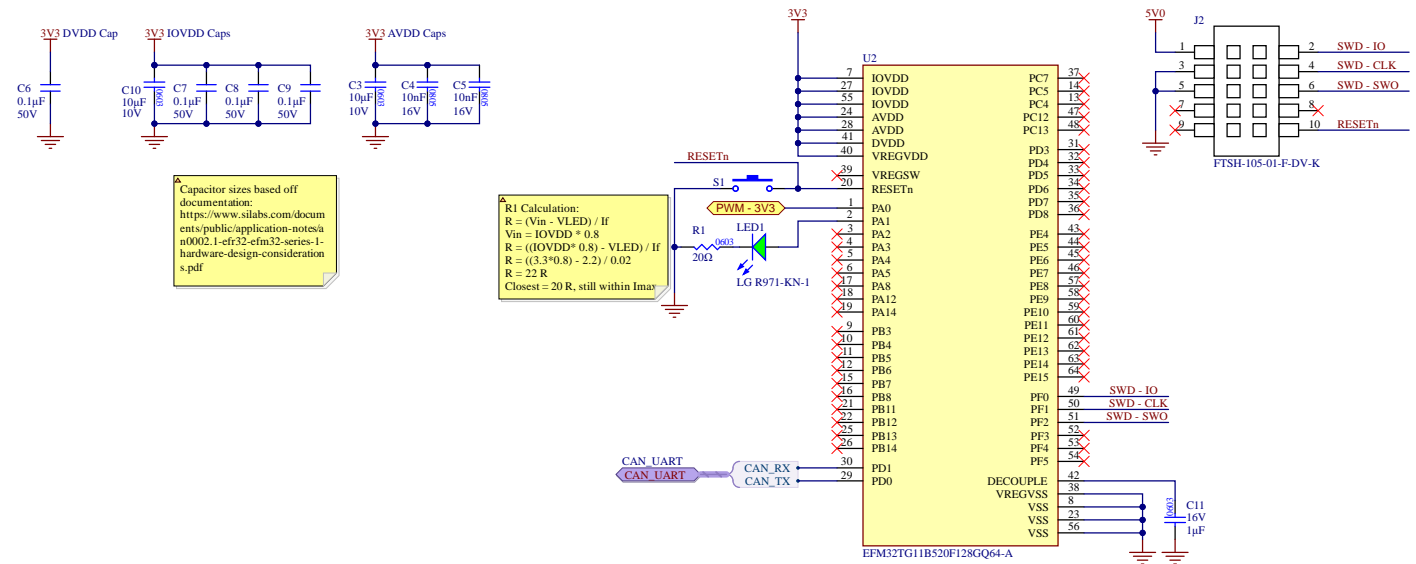


POWER



		University of Waterloo Robotics Team 200 University Ave W Waterloo, Ontario, Canada N2L 3G1	REV 2
PROJECT Gimbal.PrjPcb, [No Variations]			
DOCUMENT SH1 - POWER.SchDoc		MODIFIED 2021-12-30	
ENGINEER Taylor McNabb	REVIEWER *	SHEET 1 OF 3	

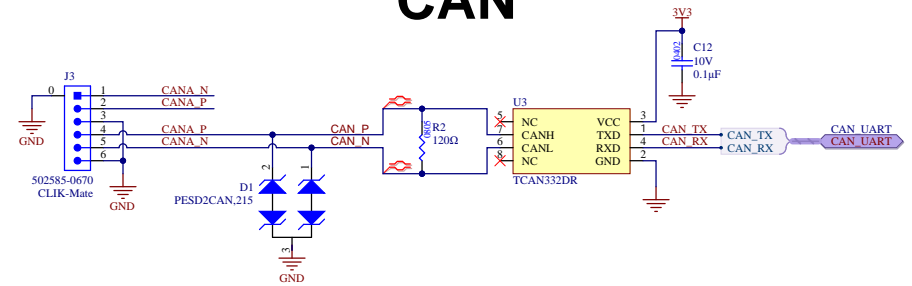
MICROCONTROLLER



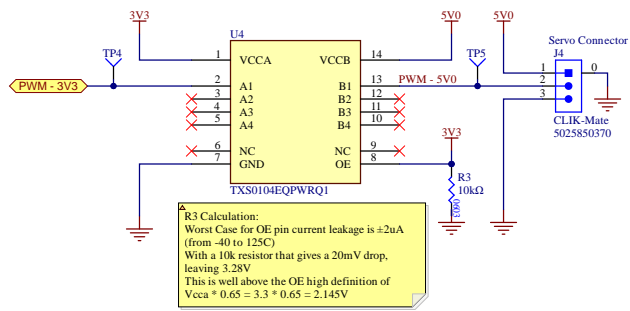
Capacitor sizes based off documentation:
https://www.silabs.com/documents/public/application-notes/an0002_1-efr32-efm32-series-1-hardware-design-considerations.pdf


R1 Calculation:
 $R = (V_{in} - V_{LED}) / I_f$
 $V_{in} = IOVDD * 0.8$
 $R = ((IOVDD * 0.8) - V_{LED}) / I_f$
 $R = ((3.3 * 0.8) - 2.2) / 0.02$
 $R = 22 \Omega$
Closest = 20 R, still within I_{mar}

CAN



LEVEL SHIFTER



 University of Waterloo Robotics Team 200 University Ave W Waterloo, Ontario, Canada N2L 3G1		REV 2
PROJECT Gimbal.PrjPcb, [No Variations]		
DOCUMENT SH3 - LEVEL SHIFTER.SchDoc		MODIFIED 2021-12-30
ENGINEER Taylor McNabb	REVIEWER *	SHEET 3 OF 3