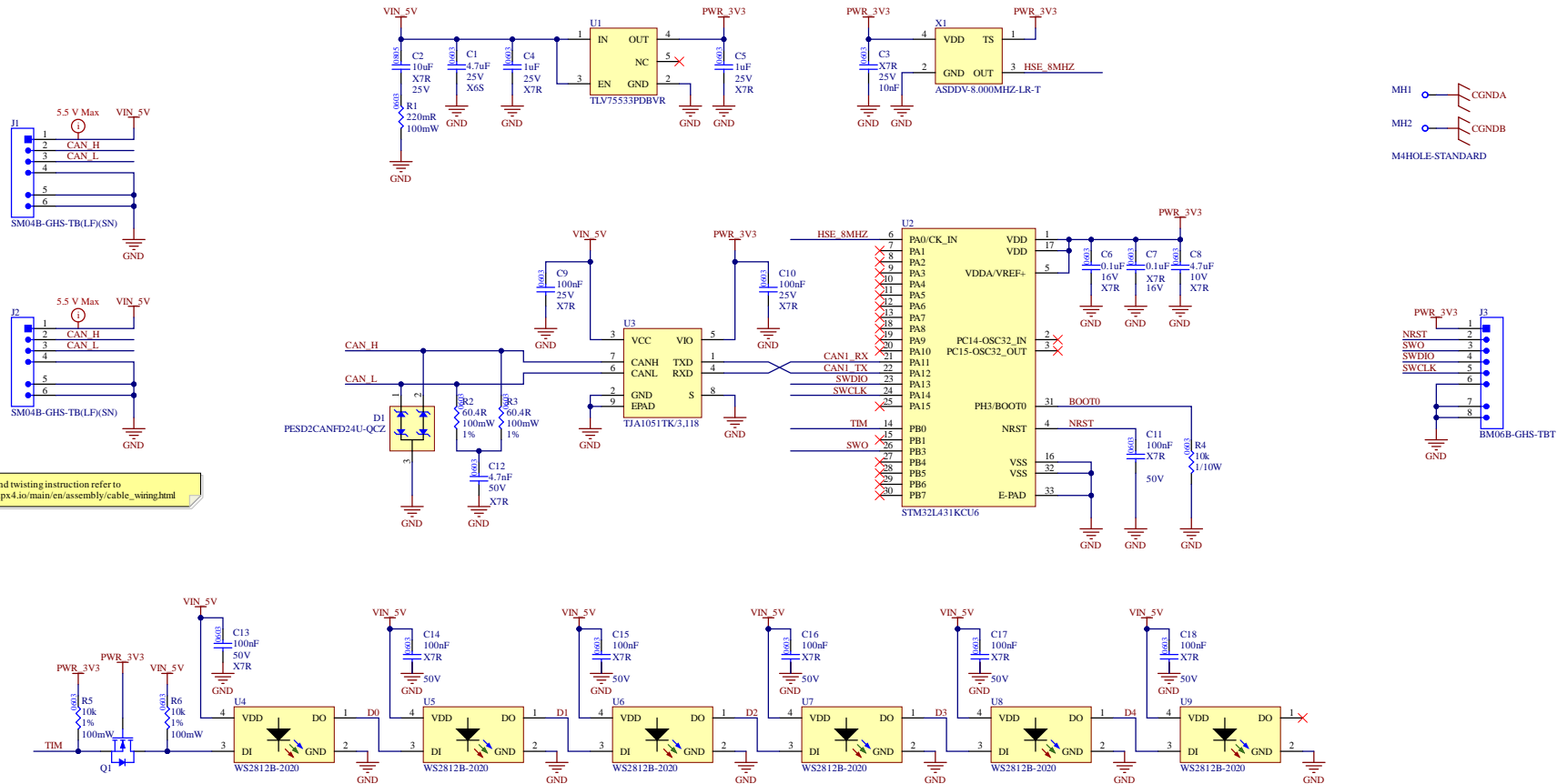


A Styling: im not proud of the styling on this schem but for speedrunning a board, the parameters are all over the place, but I don't have time to fix the library for all these and make it look nice.

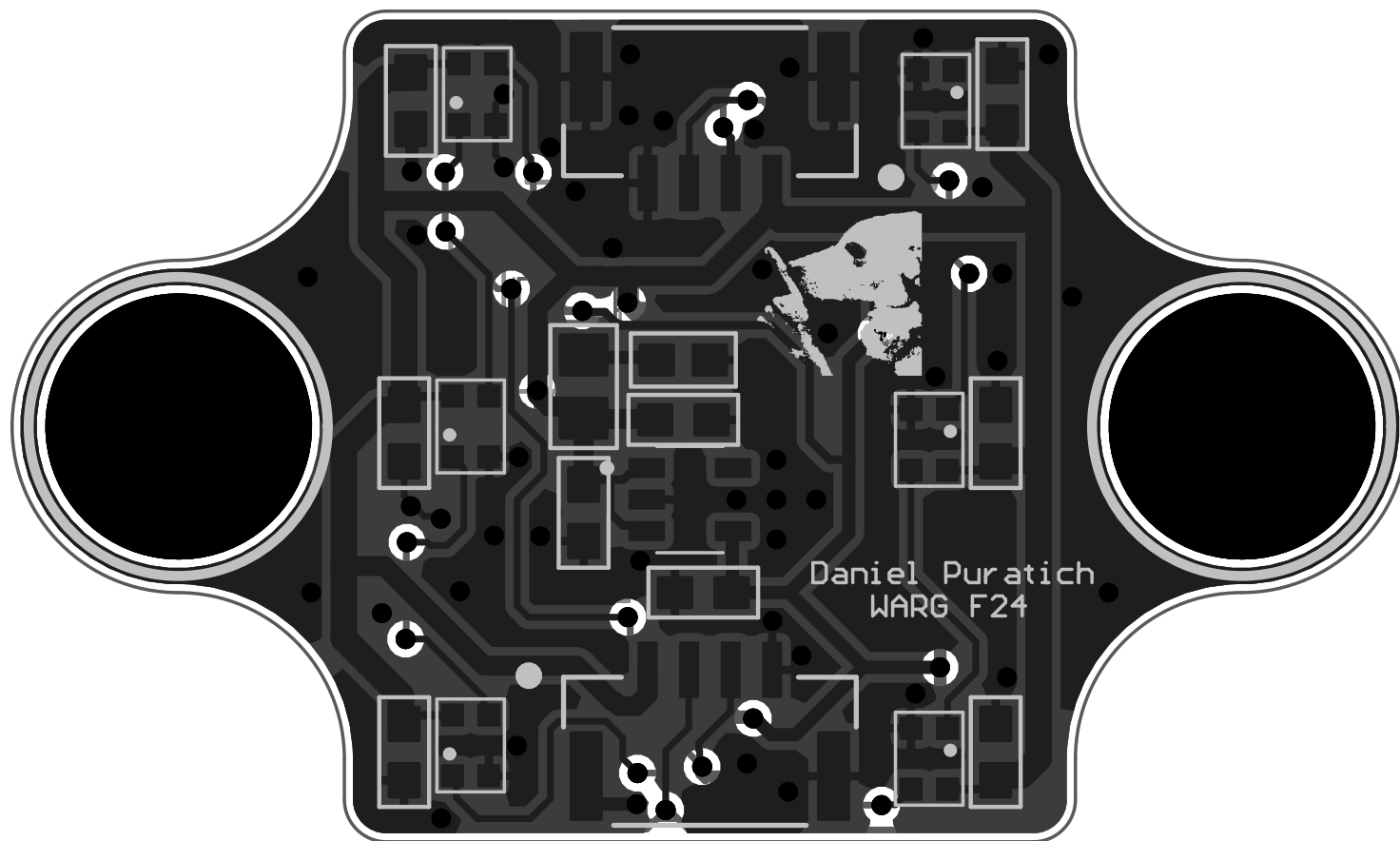
A Layout: LEDs need to face down. Hot components face down for more airflow. Bottom must have low components to avoid hitting the arm tube.

LED Board Rev 3

<https://uwarg-docs.atlassian.net/wiki/spaces/EL/pages/2694545459/LED+Board+Rev+3>



WARG		Waterloo Aerial Robotics Group 200 University Ave W Waterloo, Ontario, Canada N2L 3G1	
PROJECT LED Board Rev 3.PrjPcb, [No Variations]		REVISION *	
DOCUMENT Schematic.SchDoc		MODIFIED 9/4/2024	
ENGINEER Daniel Puratich	REVIEWER *	SHEET * OF *	



Comment	Description	Designator	Footprint	LibRef	Quantity
GRM188C81E475KE1 1D	CAP CER 4.7uF 25V X6S0603	C1	.CAP_0603-Footprint- 1	CMP-001-00002-10	1
GMC21X7R106K25NT	CAP CER 10UF 25V X7R0805	C2	.CAP_0805-Footprint- 1	CMP-00241-5	1
CC0603KRX7R8BB10 3	CAP CER 10nF 25V X7R0603	C3	.CAP_0603-Footprint- 1	CMP-00217-1	1
GCM188R71E105KA6 4D	CAP CER 1UF 25V X7R 0603	C4, C5	.CAP_0603-Footprint- 1	CMP-00240-2	2
GCM188R71C104KA3 7D	CAP CER 100nF 16V X7R0603	C6, C7	.CAP_0603-Footprint- 1	CMP-001-00003-9	2
GRM188Z71A475KE1 5J	CAP CER 4.7UF 10V X7R0603	C8	.CAP_0603-Footprint- 1	CMP-001-00045-2	1
CL10B104KA8NNNC	CAP CER 0.1UF 25V X7R0603	C9, C10	.CAP_0603-Footprint- 1	CMP-00057-2	2
CL10B104KB8NNNC	CAP CER 0.1uF 50V X7R0603	C11, C13, C14, C15, C16, C17, C18	.CAP_0603-Footprint- 1	CMP-00018-8	7
GCM188R71H472KA3 7D	CAP CER 4700PF 50V X7R0603	C12	.CAP_0603-Footprint- 1	CMP-001-00080-1	1
PESD2CANFD24U- QCZ	TVS DIODE 24VMM 43VC DFN1412D-3	D1	PESD2CANFD24U- QCZ-Footprint-1	CMP-00239-5	1
SM04B-GHS- TB(LF)(SN)	Conn Shrouded Header HDR 4 POS 1.25mm Solder RA SMD Reel	J1, J2	CONN_SM04B-GHS- TB_JST	CMP-068-000000-5	2
BM06B-GHS-TBT	Connector Header Surface Mount 6 position 0.049" (1.25mm)	J3	BM06B-GHS-TBT- Footprint-1	CMP-002-00014-9	1
M4HOLE-STANDARD	Standard M4 Hole	MH1, MH2	M4HOLE-STANDARD- Footprint-1	CMP-00191-1	2
BSS138	MOSFET N-CH 50V 220MA SOT23-3	Q1	BSS138-Footprint-1	CMP-00295-3	1
RL0603FR-070R22L	RES 0.22 OHM 1% 1/10W0603	R1	.RES_0603-Footprint-1	CMP-00261-1	1
RC0603FR-1360R4L	RES 60.4 OHM 1% 1/10W0603	R2, R3	RES0603	CMP-00245-1	2
RC0603FR-0710KL	RES 10K OHM 1% 1/10W0603	R4	.RES_0603-Footprint-1	CMP-009-00006-5	1
AC0603FR-1310KL	RES 10K OHM 1% 1/10W0603	R5, R6	.RES_0603-Footprint-1	CMP-009-00054-3	2
TLV75533PDBVR	IC REG LINEAR 3.3V 500MA SOT23-5	U1	SOT-23-5	CMP-00225-4	1
STM32L431KCU6	IC MCU 32BIT 256KB FLSH 32UFQFPN	U2	STM32L431KCU6- Footprint-1	CMP-00224-6	1
TJA1051TK/3,118	IC TRANSCEIVER HALF 1/1 8HVSON	U3	TJA1051TK_3,118- Footprint-1	CMP-00219-3	1
WS2812B-2020	LED Neopixel 2mm	U4, U5, U6, U7, U8, U9	WS2812B-2020- Footprint-1	CMP-00294-3	6
ASDDV-8.000MHZ-LR- T	OSC XO 8.000MHZ CMOS SMD	X1	ASDDV-8.000MHZ-LR- T-Footprint-1	CMP-00242-3	1