



Title		
Size	Number	Revision
A2		
Date:	9/10/2024	Sheet of
File:	D:\Alium_Designer_balancing_robot	Sheet of 1

Comment	Description	Designator	Footprint	LibRef	Quantity
JP5			JP5	JP5	1
0.1u	Capacitor SMD Cer 1nF 10% 16V X7R 0402	C1, C2, C3	CAPC1005X55N	CAP_C_0402	3
10nF	Capacitor SMD Cer 1nF 10% 16V X7R 0402	C4, C5, C12	CAPC1005X55N	CAP_C_0402	3
0.1uF	Capacitor SMD Cer 1nF 10% 16V X7R 0402	C6, C14, C15	CAPC1005X55N	CAP_C_0402	3
1.0uF	Capacitor SMD Cer 1nF 10% 16V X7R 0402	C7	CAPC1005X55N	CAP_C_0402	1
100nF	Capacitor SMD Cer 1nF 10% 16V X7R 0402	C8, C9, C20	CAPC1005X55N	CAP_C_0402	3
1uF	Capacitor SMD Cer 1nF 10% 16V X7R 0402	C10, C11	CAPC1005X55N	CAP_C_0402	2
22nF	Capacitor SMD Cer 1nF 10% 16V X7R 0402	C13	CAPC1005X55N	CAP_C_0402	1
JP3x2	WR-PHD 2.54 mm Dual Socket Header	C16	JP3-C2T	JP3x2	1
20pF	Capacitor SMD Cer 1nF 10% 16V X7R 0402	C17, C18	CAPC1005X55N	CAP_C_0402	2
JP4x2	WR-PHD 2.54 mm Dual Socket Header	C19	JP4-C2T	JP4x2	1
16Mhz	Crystal For all Crystal 2pin	CT1	CRYSTAL-SMD5032	CRYSTAL	1
MMSZ5229BT1G	Diode Zener SMD 4.7V 0.5W SOD-123	D1	SOD123	DIODE_ZENER_4.7V_500mW	1
LTST-G563ZEGBW	LED: SMD- 5050, PLCC6: RGB 5x5x1.6mm: 120A°- 20mA; Lens: transparent	D2	LED_LTST- G563ZEGBW	LTST-G563ZEGBW	1
597-5112-402F	SMD LED 0603 R SAMPLE STRIP: Discretes Dialight 597-5112-402F	D3, D4, D5	LEDSCL60X80X70L4 5N	597-5112-402F	3
HC06		HC1	HC06	HC06	1
STM32L476RGT6	ARMA® CortexA®- M4 STM32L4 Microcontroller IC 32-Bit Single-Core 80MHz 1MB (1M x 8) FLASH 64-LQFP (10x10)	J1	LOFP-64(10X10)MM	STM32L476RGT6	1
BM068-SRSS- TB(LF)(SN)		J3, J4	JST_BM068-SRSS- TB(LF)(SN)	BM068-SRSS- TB(LF)(SN)	2
8540		LS1	XDCR_KSSG74B17-3	KSSG74B17-3	1
POWER		ON/OFF	PJ-031D	DCIN	1
STLINK	Header, 5-Pin, Dual row	P1	CABLE 10	CABLE 10	1
SI2323DS-T1-GE3	20V 4.7A 1.25W 39 mohms @ 4.5V Siliconix / Vishay SI2323DS-T1-GE3	Q1	SOT23	SI2323DS-T1-GE3	1
Thick Film	Resistor SMD chip 1k Ohm 0.063W 5% 0402	R1, R2, R3, R4, R5, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R26, R27, R28	RESC1005X40N	RES_0402	25
Thick Film	Resistor SMD chip 10 Ohm 0.25W 1% 2010, Resistor SMD chip 10 Ohm 0.25W 5% 2010	R6, R7	RESC5025X70N	RES_2010	2
Jumper	Resistor SMD chip 0.0 Ohm 0.125W 0805	R25	RESC2012N_ZERO	RES_0805	1
ON-ON	Switch THD vertical toggle SPDT	S1	Switch	SW_THD_SPDT_On- On	1
TR815	NPN 600mW, ECB	STA.TR1, STA.TR2, STA.TR3, STA.TR4	SOT-23B_L	C1815	4
RESET	Switch button 2 pin	SW1, SW2, SW3	SW1-SMD	SW2	3
STSPIN240	Half Bridge (4) Driver DC Motors, General Purpose Power MOSFET 16- VFQFPN (3x3)	U1	VFOFPN_3X3X1MM	STSPIN240	1
LM317DCYG3	1.5-A, 40-V, adjustable linear voltage regulator 4- SOT-223 0 to 125	U2	SOT230P700X180- 4N	LM317DCYG3	1
LP2985AIM5-3.0	150-mA, 16-V, low- dropout voltage regulator with enable	U3	SOT95P280X145-5N	LP2985AIM5-3.0	1
LP2985AIM5-5.0	150-mA, 16-V, low- dropout voltage regulator with enable	U4	SOT95P280X145-5N	LP2985AIM5-5.0	1
ICM-20948	Accelerometer, Gyroscope, Magnetometer, 9 Axis Sensor I2C, SPI Output	U5	OFN40P300X300X10 5-24N	ICM-20948	1