y	Vendor	Item Number	Item Description	Quantity Per Package	Cost Per Package	Number of Packages	Item Total Cost	Part Link	Symbol, Layout, & 3D Model Link	Comments	Designation on Mouse 7.0 Test	Designation Mouse 7.0 I
		D0000 (D07)								- 7.4V LiPo battery, 900mAh, 46g, 30C - JST PH 2.0 pitch 2 position for power, 3 position for charging		
Aı	mazon	B096G4D6ZX	URGENEX 7.4V	2	\$19.99	1	\$19.99	https://www.ama	L	- 53mm x 16mm x 29mm (I x h x w) - JST PH 2.0 pitch 2 position pack both male and female TH		
Aı	mazon	B09DP9FZTX	CQRobot 50 Sets	50	\$7.99	1	\$7.99	https://www.ama	12	- 50 male, 50 female		
										- schottky diode for everything except vacuum that needs 5A		
										- prevents up to 30V and allows 5A to pass - for 3.3V, 5V, 12V, and 3.2V regulators		
Di	igikey	CMS04(TE12LQ	DIODE SCHOTT	1	\$0.76	4	\$3.04	https://www.digil	k https://app.ultralibrari	s-small 370mV forward drop		
										- 3.7V 2A regulator for vacuum motor		
Di	igikey	296-53563-1-ND	DC DC CONVER	1	\$3.48	1	\$3.48	https://www.digik	https://app.ultralibrari	- schematic generated w/ TI tool: HERE HERE		
										- Cin for vacuum fan regulator circuit - 0805 package		
Di	igikey	445-7665-1-ND	CAP CER 22UF	1	\$0.39	2	2 \$0.78	https://www.digil	k n/a	- 22uF - Cout for vacuum fan regulator circuit		
Di	tigilou	44E 9220 1 ND	CAP CER 47UF	1	\$0.79	5	en 27	https://www.digil	k n/o	- 0805 package - 47uF		
Di	igikey	445-8239-1-ND	CAP CER 4/UF	1	\$0.79		\$2.31	nttps://www.digir	g n/a	- 470F - Cff for vacuum fan regulator circuit		
Di	igikey	399-C0402C331	CAP CER 330PF	1	\$0.24	1	\$0.24	https://www.digil	k n/a	- 0402 package - 330pF		
	,									- Rfbt for vacuum fan regulator circuit		
Di	igikey	541-10.0KLCT-N	RES SMD 10K C	1	\$0.10	1	\$0.10	https://www.digil	n/a	- 0402 package - 10k Ohm resistor		
										- Rfbb for vacuum fan regulator circuit - 0402 package		
Di	igikey	541-1.91KLCT-N	RES SMD 1.91K	1	\$0.10	1	\$0.10	https://www.digil	n/a	- 1.91k Ohm resistor		
										- 12V 3A regulator for wheel motor driver		
Di	igikey	296-TPS61288R	IC REG BOOST	1	\$5.89	1	\$5.89	https://www.digil	k https://app.ultralibrari	- schematic generated w/ TI tool: https://webench.ti.com/appinfo/webench/scripts/SDP.cgi?ID=AA120		
Di	igikey	445-4042-1-ND	CAP CER 10UF	1	\$0.30	1	\$0.30	https://www.digil	k n/a	- Cin for wheel motor regulator circuit - 1206 package - 10uF		
										- Cinx for wheel motor regulator circuit - 0603 package		
Di	igikey	445-1314-1-ND	CAP CER 0.1UF	1	\$0.10	1	\$0.10	https://www.digil	k n/a	- 0.1uF		
C	oilcraft	XAL7070-332	XAL7070-332ME	1	\$3.25	1	\$3.25	https://www.coild	https://app.ultralibrari	£ - L1 for wheel motor regulator circuit - Cbst for wheel motor regulator circuit		
Di	igikey	445-4952-1-ND	CAP CER 0.1UF	1	\$0.10	1	\$0.10	https://www.digil	k n/a	- 0402 package - 0.1uF		
										Cvcc for wheel motor regulator circuit 0402 package		
Di	igikey	445-9097-1-ND	CAP CER 2.2UF	1	\$0.29	1	\$0.29	https://www.digil	k n/a	- 2.2uF		
										Rcomp for wheel motor regulator circuit 0402 package		
Di	igikey	541-34.0KLCT-N	RES SMD 34K C	1	\$0.10	1	\$0.10	https://www.digil	n/a	- 34k Ohms		
										- Ccomp for wheel motor regulator circuit - 0402 package		
Di	igikey	490-16432-1-ND	CAP CER 0.0391	1	\$0.10	1	\$0.10	https://www.digil	⊈n/a	- 39nF - Ccomp2 for wheel motor regulator circuit		
Di	igikey	300-11256-1-ND	CAP CER 82PF	1	\$0.49	1	\$0.40	https://www.digik	n/a	- 0402 package - 82pF		
	iginoy	000 11200 1112	O/W OEI(OEI)		\$0.10		\$0.10	inspectation and		- Rfbt for wheel motor regulator circuit		
Di	igikey	541-931KLCT-NI	RES SMD 931K	1	\$0.10	1	\$0.10	https://www.digil	k n/a	- 0402 package - 931k Ohms		
										- Rfbb for wheel motor regulator circuit - 0402 package		
Di	igikey	541-48.7KLCT-N	RES SMD 48.7K	1	\$0.10	1	\$0.10	https://www.digil	k n/a	- 48.7k Ohms		
										- Cout for wheel motor regulator circuit - 1210 package		
Di	igikey	490-16309-1-ND	CAP CER 47UF	1	\$0.52	3	\$1.56	https://www.digil	k n/a	- 47uF		
										- switch for on/off of entire mouse		
Di	igikey	EG5554-ND	SWITCH ROCKE	1	\$1.64	1	\$1.64	https://www.digik	k - https://www.mouser	- rated for 15A (AC), can hopefully handle 9A DC - 10A fuse for entire mouse		
	igikey		FUSE BRD MNT		\$0.91	1				- 3A for wheels + 2A for vacuum + 1A for 3.3V + 1A for 5V = 7A		Extra new
Di	igikey	P122314CT-ND	CAP ALUM 1200	1	\$0.49	1	\$0.49	https://www.digil	https://www.mouser.c	2 - 1.2mF 16V bulk cap for entire mouse		Extra new
										- 5V, 500mA switching regulator		
Di	igikey	296-39450-1-ND	IC REG BUCK 5	1	\$1.36	1	\$1.36	https://www.digik	https://app.ultralibrari	- used to power Sharp sensors		
Di	igikey	296-39449-1-ND	IC REG BUCK 3.	1	\$1.36	1	\$1.36	https://www.digil	k https://app.ultralibrari	- 3.3V, 500mA switching regulator		
										- 10uF ceramic cap needed for 5V and 3.3V switching regulator - between VIN and PGND (pg 21 pdf of datasheet)		
Di	igikey	445-6857-1-ND	CAP CER 10UF	1	\$0.31	2	\$0.62	https://www.digil	k n/a	- 0805 package		

Category	Vendor	Item Item Number Description	Quantity Per Package	Cost Per Package	Number of Packages	Item Total Cost	Part Link	Symbol, Layout, & 3D Model Link	Comments	Designation on Mouse 7.0 Test	Designation on Mouse 7.0 PCB
	Digikey	445-7665-1-ND CAP CER 22UF	1	\$0.39	2	\$0.78	https://www.digil	⊈n/a	 - 22uF ceramic cap needed for 5V and 3.3V switching regulator - between SW and FB (pg 21 pdf of datasheet) 		
	Digikey	541-100KHCT-NI RES SMD 100K	1	\$0.10	2	\$0.20	https://www.digik	on/a	- 100k Ohm resistor needed for 5V and 3.3V switching regulator - between SW/VOS and PG (pg 21 pdf of datasheet) - smaller 0603 package		
	Digikey	732-2613-1-ND FIXED IND 2.2UI	1	\$1.64	2	77.27	-		-2.2uH inductor needed for 5V and 3.3V switching regulator - between SW and 100k Ohm resistor (pg 21 pdf of datasheet)	(NEW, old dupe)	
	Digikey	732-2013-1-ND 11XED IND 2.201	,	\$1.04		\$3.20	intps://www.digir	nttps://www.mouser.c	- between 5w and 100k Onlin resistor (pg 21 pdi of datasneer)	(NEW, Old dupe)	
	Digikey	296-TLV9301IDB IC OPAMP GP 1	1	\$0.58	1	\$0.58	https://www.digik	https://app.ultralibrari	- low battery voltage indicator op amp - to be used as comparator to turn on/off regulators		
									- R2 for low battery voltage comparator circuit - 0402 package		
	Digikey	P118KLCT-ND RES SMD 118K	1	\$0.10	1	\$0.10	https://www.digil-	n/a	- 118k Ohms		
									- R1 for low battery voltage comparator circuit - 0402 package		
	Digikey	541-100KLCT-NERES SMD 100K	1	\$0.10	1	\$0.10	https://www.digil-	n/a	- 100k Ohms		
									- R1 for comparator output divider - 0402 package		
	Digikey	541-10.0KLCT-N RES SMD 10K C	1	\$0.10	1	\$0.10	https://www.digil-	n/a	- 10k ohms	(NEW, dupe)	
	Digikey	P3.74KLCT-ND RES SMD 3.74K	1	\$0.10	1	\$0.10	https://www.digik	⊈n/a	- R2 for comparator output divider - 0402 package - 3.74k ohms	NEW	
									- H bridge PWM interface brushed motor driver		
	Digikey	61FG8ELCT-ND IC MOTOR DRIV	1	\$3.51	1	\$3.51	https://www.digil-	https://app.ultralibrari	- 10-36V supply, 3A output max, 30-BSOP		
	Digikey	445-7456-1-ND CAP CER 0.1UF	1	\$0.11	1	\$0.11	https://www.digik	⊈n/a	- C2 0.1uF cap for 5V output from motor driver - datasheet pg 8: HERE - 0603 package		
	Digikey	P121394CT-ND CAP ALUM HYB	1	\$1.45	1	\$1.45	https://www.digil	https://www.mouser.c	- C1 47uF polymer cap for motor driver supply		
	Digikey	F121394C1-ND CAP ALOW HTB		\$1.45	'	\$1.45	nups.//www.uigir	nups.//www.mouser.c	- datasneet pg 6 - Gear motors, 4900rpm w/ encoders		
Wheel Motor	Servocity	638103 Gear Motor with	1	\$19.99	2	\$39.98	https://www.serv	<u>'(</u>	- 6 position 1.5 pitch ZH JST		
Related	Pololu	1087 Black plastic whe	2	\$4.95	1	\$4.95	https://www.polo	1	Wheels, 32mm diameter, 3mm D output shaft we'll use just the rubber tire and make a custom wheel		
		DOON OO VERNE OO DE LEAGO O	400	00.50		00.50	"	https://www.jst-mfg.co	107.7110		
	Amazon Amazon	B09NCCXPGM CQRobot 100 Se B07FW18RQY uxcell 683ZZ Bal		\$9.58 \$7.99	1		https://www.ama		- JST ZH 6 position male (receptacle) TH connector - 3mm ball bearings to be embedde into custom wheels		
	Servocity	1500-0010-0003 1500 Series Plas		\$1.87	1		https://www.serv		- 3mm plastic spacers to put between wheel and mount		
	Amazon	B0BKRQSMFL FOLIV 700PCS N	10-50	\$15.29	1		https://www.ama		- M3 button head screws to serve as wheel axels		
	Digikey	1727-7806-1-ND DIODE SCHOTT	1	\$0.39	8	\$3.12	https://www.digik	https://app.ultralibrari	- Flyback diodes for EMF protection		
									Molex picoblade connector various positions, includes 3 position 1.25mm pitch male and female connector, 20 of each includes 10cm precrimped wire		
	Amazon	B08RMQP6YP 1.25mm Male an	20	\$18.99	1	\$18.99	https://www.ama	n/a	- to be used to extend HGLRC wire		
	Digikey	DMN3200U-7DICMOSFET N-CH 3		\$0.45	1				- 2.2A 30V MOSFET to switch on/off regulator power to vacuum fan	NEW	
	Digikey	P17216CT-ND RES 47 OHM 1%	1	\$0.23	1	\$0.23	https://www.digik	gn/a	- 47 Ohm gate resistor for MOSFET to limit surge curemt - 10k Ohm resistor for pulling down input to MOSFET to ensure low	NEW	
Vacuum Fan	Digikey	541-10.0KLCT-N RES SMD 10K C		\$0.10	1	\$0.10	https://www.digik		- 0402 package	(NEW, dupe)	
Related	Digikey	493-3813-1-ND RNE1C101MDS	1	\$0.76	1	\$0.76	https://www.digik	https://app.ultralibrari	100uF capacitor for vacuum fan driver - 0.1uF cap for brushless motor driver		
	Digikey	4988-NMC0805X CAP SMT08050.	1	\$0.24	1	\$0.24	https://www.digil-	⊈n/a	- 0.1uF cap for brushless motor driver - 0805 package		
	Amazon	B07CFQMF1M 8pcs 8520 Motor	8	\$18.99	1	\$18.99	https://www.ama	n/a	- 15000KV brushed DC motor for vacuum fan - 2p 1.25mm pitch picoblade connector		
					'	7.0.0		- https://app.ultralibra	- motor to board connector for vacuum fan		
	Digikey	WM1731-ND CONN HEADER		\$0.23 \$0.39	1			- https://www.molex.c	- 2p 1.25mm pitch picoblade connector		
	Digikey	1727-7806-1-ND DIODE SCHOTT	1	\$0.39	2	\$0.78	nups://www.digil	nups://app.uitraiibrari	- Flyback diodes for EMF protection		
		DODTVD73/840 4.0 (00.0		***		***	h.u//.		annually to that OD winted an orde to DOS		
Ball Caster, nuts, screws	Amazon	B0BTYDZVM8 1 Oz (23 Grams)	1	\$6.99	1	\$6.99	https://www.ama	U .	- superglue to attach 3D printed mounts to PCB		

Category	Vendor	Item Number De	Item escription	Quantity Per Package	Cost Per Package	Number of Packages	Item Total Cost	Part Link	Symbol, Layout, & 3D Model Link	Comments	Designation on Mouse 7.0 Test	Designation of Mouse 7.0 PC
										- Sharp IR distance sensor 2-15cm		
										- shortest range sharp IR sensor available - connects w/ 3 position ZH JST connector		
	Digikey	1855-1027-ND SEN	ISOR OPTIC	1	\$8.45	4	\$33.80	https://www.digil	k https://www.mouser.c	- needs 10uF cap		
										- JST ZH 1.5 pitch 3 position pack both male and female TH		
	Amazon	B09NC8Y2PK CQF	Robot 100 Se	50	\$11.99	1	\$11.99	https://www.ama	a: https://www.jst-mfg.co			
IR Sensing	Digikey	490-GRM155R61CAP	CER 10UF	1	\$0.13	4	\$0.52	https://www.digil	k n/a	- 10uF ceramic capacitor, SMD 0402 - needed for Sharp IR sensors	NEW	
										- R1 resistor array to drop 2.5V max from IR sensor output to 1.8V		
	Digikey	CAY16-1001F4LIRES	S ARRAY 4 R	1	\$0.10	1	\$0.10	https://www.digil	k https://app.ultralibrari	- 1k Ohm resistor array, 4 resistors		
										 R2 resistor to drop 2.5V max from IR sensor output to 1.8V 2.2k Ohms calculated w/ voltage divider equation 		
	Digikey	CAY16-2201F4LIRES	ARRAY 4 R	1	\$0.10	1	\$0.10	https://www.digil	k https://app.ultralibrari	- resistor array, 4 resistors		
	Digikey	1175-1733-ND CON	NN HEADER	1	\$0.68	1	\$0.68	https://www.diail	k https://www.arrow.cor	- 2x5 TH JTAG programming header - small 1.27 pitch w/ key slot and shroud		
	Digikey	2151-RT3215-32 CRY	/STAL 32.768	1	\$0.42	1				- 32.768kHz external crystal		
	,									- 22pF caps for external crystal		
	Digilary	490-GQM1555C1CAP	OED SODE	1	\$0.61	2	64.00	https://www.digil	k https://opp.ultrolibrori	- needed on each crystal terminal	NEW	
	Digikey Amazon		YITO TTI to F	1	\$7.99				k https://app.ultralibrari		NEVY	
	Amazon		WAN USB to	1	\$11.99	1		https://www.ama https://www.ama		- TTL to DB-9 (DE-9) translator for serial out - DB-9 (DE-9) to USB A for serial out		
	Amazon	BU/ SURSEPT OIK	WAIN USB IU	'	\$11.99		\$11.99	HILLPS.//WWW.aIIIa	not needed	- AT32UC3L0256 AVR MCU to replace Arduino		
										- 50MHz, faster than controller above, operates on 3.3V		
	Digikey	AT32UC3L0256-, IC M	ACLI SSRIT SI		\$10.19	1	610.10	https://www.digil	k https://opp.ultrolibrori	- 12b ADC, PWM, programmed via JTAG and aWire - schematic checklist: HERE		
	Digikey	AT 320C3E0250-1C IV	ICU 32BIT 2;	'	\$10.19	'	\$10.19	nttps://www.digir	к пирѕ.//арр.инганыган	- 10uF capacitor for AT32UC3L0256 VDDin		
										- page 4 of schematic checklist		
	Digikey	490-GRM155R61CAP	CER 10UF	1	\$0.13	1	\$0.13	https://www.digil	k n/a	- small 0402 package	NEW	
MCU										- 0.1uf ceramic cap for AT32UC3L0256 VDDin, VDDio, and VDDcore - page 4 of schematic checklist		
	Digikey	445-4952-1-ND CAP	CER 0.1UF	1	\$0.10	3	\$0.30	https://www.digil	k n/a	- 0402 package	(NEW, dupe)	
										- 2.2uF ceramic cap for AT32UC3L0256 VDDio, and VDDcore		
	Digikey	445-9097-1-ND CAP	CER 2 2LIE	1	\$0.29	1	\$0.20	https://www.digil	k n/a	- page 4 of schematic checklist - 0402 package	(NEW, dupe)	
	Digiticy	440-3037-1-ND O/N	OLIV Z.ZOI		ψ0.23		ψ0.23	nttps://www.uigii	N IV U	- 0.1uF ceramic cap for AT32UC3L0256 VDDana and ADVREF	(NEW, dupe)	
										- page 5 of schematic checklist		
	Digikey	445-4952-1-ND CAP	CER 0.1UF	1	\$0.10	1	\$0.10	https://www.digil	k n/a	- 0402 package	(NEW, dupe)	
										 ferrite bead for for AT32UC3L0256 VDDana and ADVREF page 5 of schematic checklist, and page 15 on xplained dev board schematic: HERE 		
	Digikey	732-7426924115 WE-	TMSB SMT	1	\$0.13	1	\$0.13	https://www.digil	k https://app.ultralibrari	- 0402 package	NEW	
	Disilian	445-4952-1-ND CAP	000004115		\$0.10		60.40	L. 44	l/-	- 0.1uF ceramic cap for JTAG on AT32UC3L0256	(NIFIM down)	
	Digikey	445-4952-1-ND CAP	CER U. TUF	1	\$0.10	1	\$0.10	https://www.digil	<u>ki</u> n/a	- 0402 package - 10k resistor for pulling down enable signal	(NEW, dupe)	
	Digikey	541-10.0KLCT-N RES	SMD 10K C	1	\$0.10	1	\$0.10	https://www.digil	k n/a	- 0402 package	(NEW, dupe)	
	Digikey	1965-ESP32-PICRF 1	TXRX MOD F	1	\$3.50	1	\$3,50	https://www.diail		 ESP32 bluetooth module to serve as a serial bridge between mouse and laptop perfect for our application- Sparkfun has a dev board doing exactly what we want 		Extra Extra ne
										- 22uF cap to decouple ESP32 module power		
	Digikey	445-9077-1-ND CAP	CER 22UF	1	\$0.34	1	\$0.34	https://www.digil	k n/a	- 0603 package		Extra Extra ne
	Digikey	445-4952-1-ND CAP	CER 0 1HE	1	\$0.10	1	\$0.10	https://www.digil	k n/a	- 0.1uF cap to decouple ESP32 module power - 0402 package	(NEW, dupe)	
Bluetooth	Digincy	.TO-TOOL- I-IND CAP	JEIN 0. 10F	'	φυ. 10		φυ.10	po.//www.ulgli		- 10k resistor to slow down ESP32 module power up	(ITETT, dupe)	
DidelOOIN	Digikey	541-10.0KLCT-N RES	S SMD 10K C	1	\$0.10	1	\$0.10	https://www.digil	k n/a	- 0402 package	(NEW, dupe)	
	B	445 0000 4 ND -:-							,	- 1uF cap to slow down ESP32 module power up		
	Digikey	445-9086-1-ND CAP		1	\$0.10	1		https://www.digil		- 0402 package	(NEW dune)	Extra Extra ne
	Digikey Digikey	2449-CS1213AG SWI PPPC041LGBN- CON		1	\$0.40 \$0.68	1				- pushbutton for ESP32 module boot option - female 2.54mm pitch connector to connect to mouse	(NEW, dupe)	Extra Extra ne
	Digikey	FFFC04 ILGBIN-COI	NN HDR 4FC	'	\$0.00	'	\$0.00	nups.//www.uigir	K IIIIps.//octopart.com/p	- remaile 2.54mm pitch connector to connect to mouse		Extra Extra ne
										- 3.9mm x 2.9mm smd pushbutton for config		
	Digikey	2449-CS1213AG SWI		1	\$0.40	1	\$0.10		k https://app.ultralibrari		NEW	Extra new
	Digikey	754-1105-1-ND LED		1	\$0.41	1				- yellow SMD LED 0402 package for debug	NEW	
	Digikey	754-2123-1-ND LED		1	\$0.52	1				- red SMD LED 0402 package for error indication	NEW	
Misc	Digikey	754-1503-1-ND LED			\$0.70	1				- green SMD LED 0402 package for debug	NEW	
	Digikey	754-1504-1-ND LED		1	\$0.51	1				- blue SMD LED 0402 package for debug	NEW	
		CAY16-1001F4LIRES	AKKAY 4 R	1	\$0.10	1				- 1k Ohm resistor array, 4 resistors		
	Digikey Digikey	952-2664-1-ND PC	TEOT DOM	1	\$0.31					- TH testpoint to probe mouse		

ategory	Vendor	Item Number Description	Quantity Per Package	Cost Per Package	Number of Packages	Item Total Cost	Part Link	Symbol, Layout, & 3D Model Link	Comments	Designation on Mouse 7.0 Test	Designation Mouse 7.0
РСВ	JLC PCB	n/a PCB prototype:Y-	5	\$2.00	1	\$2.00	https://jlcpcb.com		- solid and cheap PCB vendor - no issues so far, purple nice and deep purple		
	JEC PCB	пла РСБ ргосотуре. Т	5	\$2.00	' '	\$2.00	nttps://jicpcb.com	I	- no issues so iai, purpie nice and deep purpie		
					total cost:	#REF!					
					total cost:	#REF!					
					116	5					
	resistors:	https://www.digikey.com/en/produc	ts/filter/chip-resist	or-surface-moun	t/52?s=N4IgjCBcd	ExaBjKAzAhgGw	M4FMA0IB7KAb	XADYBWAFgGYQBdfA	NBWBcoQBIFgJWEsA7AOYgAvvjBI4IJJDRY8hEiBoBOGjBUNmbSJx4DhYkDAAMADgpSZcnPiKRS	YEwAlA1gHkAFgFtMWkl	KzsAKr8vCzu
	headers:	https://www.digikey.com/en/produc	ts/filter/rectangula	ar-connectors/hea	aders-receptacles	-female-sockets/31	15?s=N4IgjCBcoC	GwJxVAYygMwIYBsDO	BTANCAPZQDalALGGABxwDslAuoQA4AuUlAyuwE4BLAHYBzEAF9CNGohAplGHAWJkQDAKxg	AzMzadlPfsLGSQAWgB	Ms%2BfwCuy
	ceramic caps:								yhAGVWAnASwB2AcxABfAgFoaCEMki8ArviKkQAVkbiQE%2BNFIRFy4pDLINk%2BnrmGCxshAait		
									, DSIAuoQA4AuUIAyuwE4BLAHYBzEAF9CAWgBMiECkj8ArgWJkQAVmaSQUmPMUq1JSOQDMO		
	motor drivers:								ukQA4AuUIAyhwE4BLAHYBzEAF8iAWhhIQqSAlCuhEuRCJmUkNIBs8xSrWIIFJtpkBOQ1GNFTFC		
									PABIHQZdmrHlmYhYDatVaUQAXSIAHAC5QQAZTKAnAJYA7AOYgAvkVrUAzEhCplmXIRLkh8Wh2		
				-					PZQDaIALGDGAAwBMIALrEADpSggAyiQCWZAOYgAvsQC0A6CDSQa9Ys0hs4QISFUA2ZFgp0G		
	screws:	https://www.digikey.com/en/produc						-		DIJDINGNIII EZOTICCUONI	TANGUNU V V4
	nuts:	https://www.digikey.com/en/produc								-1170FAE-1 01 15 0 00	OTN:450: :
	MCUs:								QA4AuUIAMq8ATgEsAdgHMQAX0JhWiECkgYcBYmXABWCgA4qEBTv36DjclcPGr%2BnfUtg4VWq		
	more MCUs:								zZ6aAOJizmDj8WQgOwjBPKiAC6BAA4AXKCADKSgE4BLAHYBzEAF8CsGghDJl6bPiKkQAFm4B		
	IMUs:	https://www.digikey.com/en/produc	ts/filter/imus-inert	ial-measurement	-units/567?s=N4Ig	gjCBcoLQExVAYyo	gFwE4FcCmAaE/	A9IANogCsIAugL74wB	silKkGO%2BRkpAzFbSDACcTFmzyES4PvwRcQASQCyAVSr4K0EAAcoYfFp2QwABmP9GmgJYA	TKAJMR9qOyHyoAnlux2	2AhgGcUamo
	rectifier diodes:								4BOArkVIUQAVjqMQTAGztOvAcTKRKAZnHMk0DlHmCllCA2ZitnLHj3C2xFgBY1xMAHYQxGQwltll	HvhRcAS3QA-B46N3YA	gBMoSTAqCO
	rectifier diodes: inductors:								4BOArkVIUQAVjqMQTAGztOvAcTKRKAZnHMk0DIHmClICA2ZitnLHj3C2xFgBY1xMAHYQxGQwitli zFbSDACcTFmzyES4PvwRcQASwB2AE0xJUBdHyA	HvhRcAS3QA-B46N3YA	gBMoSTAqCG
	inductors:	https://www.digikey.com/en/produc	ts/filter/fixed-indu	ctors/71?s=N4Igj	CBcoLQExVAYyg	FwE4FcCmAaEA9	9IANogCsIAugL74	4wBsilKkGO%2BRkpA			
	inductors:	https://www.digikey.com/en/produc	ts/filter/fixed-indu	ctors/71?s=N4Igj	CBcoLQExVAYyg	FwE4FcCmAaEA9	9IANogCsIAugL74	4wBsilKkGO%2BRkpA	zFbSDACcTFmzyES4PvwRcQASwB2AE0xJUBdHyA		
	inductors:	https://www.digikey.com/en/produc	ts/filter/fixed-indu	ctors/71?s=N4Igj	CBcoLQExVAYyg	FwE4FcCmAaEA9	9IANogCsIAugL74	4wBsilKkGO%2BRkpA	zFbSDACcTFmzyES4PvwRcQASwB2AE0xJUBdHyA		
	inductors:	https://www.digikey.com/en/produc	ts/filter/fixed-indu	ctors/71?s=N4Igj	CBcoLQExVAYyg	FwE4FcCmAaEA9	9IANogCsIAugL74	4wBsilKkGO%2BRkpA	zFbSDACcTFmzyES4PvwRcQASwB2AE0xJUBdHyA		
	inductors: switching regula	https://www.digikey.com/en/produc	ts/filter/fixed-inducts/filter/voltage-re	ctors/71?s=N4lgj gulators-dc-dc-sv	CBcoLQExVAYyg witching-regulators	FwE4FcCmAaEAs s/739?s=N4lgjCBc	9IANogCsIAugL74 pgnAHLKoDGUB	4wBsilKkGO%2BRkpA 3mBDANgZwKYA0IA9I/	zFbSDACcTFmzyEs4PvwRcQASwB2AE0xJUBdHyA ANogAMIAugL7EC0ATMiGpAC4BOArkVIUQAVjqMQTAGztOvAcTKRKAZnHMk0DiHmCiiCAwitiiXA		
	inductors:	https://www.digikey.com/en/produc	ts/filter/fixed-inducts/filter/voltage-re	ctors/71?s=N4lgj gulators-dc-dc-sv	CBcoLQExVAYyg witching-regulators	FwE4FcCmAaEAs s/739?s=N4lgjCBc	9IANogCsIAugL74 pgnAHLKoDGUB	4wBsilKkGO%2BRkpA 3mBDANgZwKYA0IA9I/	zFbSDACcTFmzyES4PvwRcQASwB2AE0xJUBdHyA ANogAMIAugL7EC0ATMiGpAC4B0ArkVIUQAVjqMQTAGzt0vAcTKRKAZnHMk0DiHmCilCAwltilXA -330-Qhm-resistor-array, 4 resistors		
	inductors: switching regula	https://www.digikey.com/en/produc	ts/filter/fixed-indu tts/filter/voltage-re	ctors/71?s=N4lgj gulators-dc-dc-sv	CBcoLQExVAYyg witching-regulators	FwE4FcCmAaEAs s/739?s=N4lgjCBc - \$0.10	9IANogCsIAugL74 cpgnAHLKoDGUB https://www.digik	4wBsilKkGO%2BRkpA 3mBDANgZwKYA0IA9I/	zFbSDACcTFmzyES4PvwRcQASwB2AE0xJUBdHyA ANogAMIAugL7EC0ATMiGpAC4BOArkVIUQAVjqMQTAGztOvAcTKRKAZnHMk0DIHmCllCAwltllXA —330 Ohm resistor array, 4 resistors —61 47uF polymer cap for motor driver supply	iHcAllxQALSwDsA5gAle	
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	inductors: switching regula	https://www.digikey.com/en/produc thttps://www.digikey.com/en/produc CAY16-3300F4LI RES ARRAY 4-R	ts/filter/fixed-indu- ts/filter/voltage-re	ctors/71?s=N4lgj gulators-dc-dc-sv \$0.10	CBcoL QExVAYyg witching-regulators	FwE4FcCmAaEA9 s/739?s=N4lgjCBc s0.40 \$0.40	PIANogCsIAugL74 pgnAHLKoDGUB https://www.digik	4wBsilKkGO%2BRkpA BmBDANgZwKYA0IA9I/ https://app.ultralibraric https://www.mouser.ou	zFbSDACcTFmzyEs4PvwRcQASwB2AE0x.JUBdHyA ANogAMIAugL7EC0ATMiGpAC4BOArkVIUQAVjqMQTAGzt0vAcTKRKAZnHMk0DlHmCllCAwltllXA -330 Ohm-resistor-array, 4-resistors -C1-47uF-polymer-cap-for-motor-driver-supply -datasheet-pg-8 -TH-reset-switch	.HcAlixQALSwDsA5gAies	
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	inductors: switching regula Digikey Digikey Digikey Digikey	https://www.digikey.com/en/produc thttps://www.digikey.com/en/produc CAY16-3300F4LI RES ARRAY 4 R 732-6406-1-ND CAP ALUM POL CKN12306-ND TAGT 6-0 X 3-5-, 541-10-0KHCT-N RES SMD-10K-C	ts/filter/fixed-indu ts/filter/voltage-re	\$0.40 \$0.40 \$0.40	CBcoLQExVAYyg witching-regulator	FWE4FcCmAaEAs \$7397s=N4IgiCBc \$0.40 \$0.50 \$0.41 \$0.40	9IANogCsIAugL74 pgnAHLKoDGUB https://www.digik https://www.digik https://www.digik	4wBsilkkGO%2BRkpA mBDANgZwKYA0IA9l/ whitps://app-ultralibrarie/ whitps://www.mouser.or https://www.mouser.or https://www.neuser.or https://www.neuser.or whitps://www.neuser.or whitps://www.neuser.or whitps://www.neuser.or	zFbSDACcTFmzyEs4PvwRcQASwB2AE0x.IUBdHyA ANogAMIAugL7EC0ATMiGpAC4BOArkVIUQAVjqMQTAGzt0vAcTKRKAZnHMk0DiHmCilCAwltliXA —330 Ohm resistor array, 4 resistors —C1 47uF polymer cap for motor driver supply —datashee1 pg 8 —TH-reset switch —10k resistor for reset switch on AT32UC3L0266 —amail 9603 package —0 - 1uF-ceramic cap for reset switch on AT32UC3L0266	.HcAlixQALSwDsA5gAies	
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Category	Vendor	Item Number	Item Description	Quantity Per Package	Cost Per Package	Number of Packages	Item Total Cost	Part Link	Symbol, Layout, & 3D Model Link	Comments	Designation on Mouse 7.0 Test	Designation on Mouse 7.0 PCB
	Digikey	541-10.0KHCT-N	RES SMD 10K C	4	\$0.10	4	\$0.10	https://www.digik	n/a	-10k-resistor for pulling down-enable-signal -small 0603 package		
	Digikey	CKN12306-ND	TACT 6.0 X 3.5,	4	\$ 0.11	4	\$0.11	https://www.digik	https://www.mouser.c	-same-switch as reset switch for software configuration -to go on MCU interrupt pin		
	Digikey	3147-B1911UD-	LED ORANGE C	4	\$0.10	4	\$ 0.10	https://www.digik	https://app.ultralibrari	-orange SMD LED 0603 package for debug		
	Digikey	3147-B1911USE	LED RED CLEAF	4	\$0.10	4	\$0.10	https://www.digik	https://app.ultralibrari	-red SMD LED 0603 package for error indication		
	Digikey	3147-B1911NG	LED GREEN CLI	4	\$0.10	4	\$0.10	https://www.digik	https://app.ultralibrari	-green SMD LED 0603 package for debug		
	Digikey	3147-B1931NB-	LED BLUE CLEA	4	\$0.10	4	\$0.10	https://www.digik	https://app.ultralibrari	-blue SMD LED 0603 package for debug		