Breakout bo	ard Name	Value	Package	Quantity	Total Price									
uC		STM32L152ZET6		:	2		https://www.digik	key.com/product-c	letail/en/STM32L1	52ZET6/497-1583	31-ND/5051414/?	itemSeq=273181	582	
12V-3V3	Name	Value	Package	Quantity	Total Price									
regulator	U1	TPS54332	8-PowerSOIC		1 \$	\$0.00	https://www.digik	key.com/product-c	letail/en/texas-inst	ruments/TPS5433	32DDAR/296-394	20-1-ND/5143370		
capacitor	C1	10uF(16V)	0805		1 \$	\$0.00	https://www.digik	key.com/product-c	letail/en/samsung-	electro-mechanic	s/CL21A106KOC	NNNE/1276-1096	-1-ND/3889182	
	C2 C3	47uF(6.3V)	0805		2 \$	\$0.00	https://www.digik	key.com/product-c	letail/en/murata-el	ectronics-north-ar	nerica/GRM21BF	R60J476ME15L/49	0-9960-1-ND/502	26440
	C4	0.1uF	0402		1 \$	\$0.00	https://www.new	ark.com/kemet/c0	402c104k4pactu/i	mlcc-capacitor-0-1	luf-16v-x5r-10/dp	<u>/07X0686</u>		
	C5	0.015uF	0402		1 \$	\$0.00	https://www.new	ark.com/kemet/c0	402c153k4ractu/c	ap-mlcc-x7r-0-01	5uf-16v-0402/dp/	96Y6886		
	C6	180pF	0402		1 \$	\$0.00	https://www.new	ark.com/tdk/c100	5c0g1h181j050ba	ceramic-capacito	r-180pf-50v-c0g/d	lp/90R7567		
	C7	10pF	0402		1 9	\$0.00	https://www.new	ark.com/kemet/c0	402c100k5gactu/i	mlcc-capacitor-10	pf-50v-c0g-10/dp	<u>/07X0674</u>		
diode	D1	B320A	SMA		1 9	\$0.00	https://www.digik	key.com/product-c	letail/en/diodes-ind	corporated/B320A	-13-F/B320A-FD	CT-ND/717811		
inductor	L1(ALT)	100uH	1210		1 \$	\$0.00	https://www.digik	key.com/product-c	letail/en/taiyo-yud	en/BRL3225T101I	K/587-2170-1-ND	/2002868		
	L1	68uH	1210		1 \$	\$0.00	https://www.digik	key.com/product-c	letail/en/BRL3225	T680K/587-3031-	1-ND/2763402/?i	temSeq=2731827	<u>89</u>	
diode	D1	B320A	SMA		1 9	\$0.00	https://www.digik	key.com/product-c	letail/en/diodes-in	corporated/B320A	-13-F/B320A-FD	CT-ND/717811		
resistor	R1	150k	0402							0402JR-07150KL				
	R2	51k	0402							onents/erj-8enf51			6/dp/90W3927	
	R3	75k	0402							res-thick-film-75k-				
	R4	1M	0402							onents/erj-6enf10			05/dp/64R5372	
	R5	15k	0402							t5e/res-thick-film-				
	R6	4.7k	0402							onents/erj-2rkf470			dp/64R5288	
12V-6V8	Name	Value	Package	Quantity	Total Price									
regulator	U1	TPS54332	8-PowerSOIC	-	1									
capacitor	C1	10uF(16V)	0805		•	\$0.00	https://www.digik	ev com/product-c	⊨ letail/en/samsung-	electro-mechanic	s/CL21A106KOC	NNNF/1276-1096	-1-ND/3889182	
сарасної	C2 C3	47uF(6.3V)	0805					•	-	ectronics-north-ar				6440
	C4	0.1uF	0402					•		mlcc-capacitor-0-1			1127002	
	C5	0.015uF	0402						•	ap-mlcc-x7r-0-01				
	C6	180pF	0402				_			ceramic-capacito				
	C7	10pF	0402							mlcc-capacitor-10				
diode	D1	B320A	SMA							corporated/B320A				
inductor	L1	15uH	SSR1208							-150ML/SRR1208			=273295533	
resistor	R1	220k	0402							res-thick-film-220k			<u> </u>	
resistor	R2	51k	0402		-		•	•		onents/erj-8enf51			6/dn/90\\//3927	
	R3,R5	75k	0402				•	•		res-thick-film-75k-			<u>0,00190119971</u>	
	R3,R5	1M	0402				•	•					05/dp/64P5272	
	R4 R6	10k	0402				•			onents/erj-6enf10				
	RO	TUK	0402		1 3	φυ.υυ	mups.//www.πew	ark.com/panason	c-electronic-comp	onents/erj-2gej10	SA/TES-UTICK-TIIM-	10K-3-U-1W-U4U2/0	<u>8420100140</u>	
Linear Act	tor Driver Circuit													
	tor Driver Circuit			-		10.11				DD 4 D (000 1005	 	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	000	
	DRV8871DDAR		8-PowerSOIC	1				•		DDAR/296-43024		•		
capacitor	47uF(+16V)				1					470WR/PCE3890		•		
	0.1uF(16V)		0603		1		https://www.digik	key.com/product-c	letail/en/samsung-	electro-mechanic	s/CL10F104ZO8I	<u>NNNC/1276-1258</u>	-1-ND/3889344	
	r Driver Circuit		er.com/slide/9387	972/										
H-bridge for I	Pelt <mark>C3025LSD-13DIC</mark>	8-OSIC	10	\$9.3	6 https://www.dig	gikey.c	com/product-deta	il/en/diodes-incor	oorated/DMHC302	25LSD-13/DMHC3	3025LSD-13DICT	-ND/3677986		
Voltage Reg	ulator for cooler	TPS56528	8-PowerSOIC	1	\$2	22.82	https://www.digik	key.com/product-c	letail/en/texas-inst	ruments/TPS5652	28DDAR/296-358	57-1-ND/4037194		
	C1	10uF	0805		1 9	\$0.00	https://www.diaik	kev.com/product-d	letail/en/samsung-	electro-mechanic	s/CL21A106KOC	NNNE/1276-1096	-1-ND/3889182	

	C2 1	10uF	0603	1	\$0.45 https://www.digikey.com/product-detail/en/murata-electronics-north-america/GRM188R61C106MA73D/490-7201-1-ND/3900482
	C3				
	C4 3	33pF	0603	1	\$0.45 https://www.digikey.com/product-detail/en/kemet/C0603C330K4RAC7867/399-14977-1-ND/7382526
	C5 ().47uF	0603	1	\$0.23 https://www.digikey.com/product-detail/en/murata-electronics-north-america/GCM188R71C474KA55D/490-4775-1-ND/1641694
	C6 ().1uF	0603	1	\$0.26 https://www.digikey.com/product-detail/en/murata-electronics-north-america/GCJ188R71C104KA01D/490-5796-1-ND/2783830
	C7 2	22uF	0603	1	\$0.11 https://www.digikey.com/product-detail/en/kemet/C0603C223K4RACTU/399-1093-1-ND/411368
	C8 2	22uF	0603	1	\$0.11 https://www.digikey.com/product-detail/en/kemet/C0603C223K4RACTU/399-1093-1-ND/411368
	L1 1	1.5uH	PCMB	1	\$1.16 https://www.digikey.com/product-detail/en/susumu/PCMB042T-1R5MS/408-1366-1-ND/2078579
	R1 3	37.4kOhm	0603	1	\$0.10 https://www.digikey.com/product-detail/en/panasonic-electronic-components/ERJ-3EKF3742V/P37.4KHCT-ND/198355
	R2 4	19.9kOhm	0603	1	\$0.35 https://www.digikey.com/product-detail/en/panasonic-electronic-components/ERA-3AEB4992V/P49.9KDBCT-ND/3075986
	R3 1	100kOhm	0603	1	\$0.35 https://www.digikey.com/product-detail/en/panasonic-electronic-components/ERA-3AEB104V/P100KDBCT-ND/1466100
	REG INV	T1054CDWR	16SOIC	5	\$14.00 https://www.digikey.com/product-detail/en/texas-instruments/LT1054CDWR/296-14618-2-ND/555691
	C7 1	1UF 16V	402	100	\$2.58 https://www.digikey.com/product-detail/en/samsung-electro-mechanics/CL05A105M05NNNC/1276-1447-2-ND/3887105
	C8 1	100UF 10% 16V	2917	10	\$10.87 https://www.digikey.com/product-detail/en/avx-corporation/TPSD107K016R0100/478-9140-2-ND/1473044
	C9 2	2000PF 50V	603	100	\$1.75 https://www.digikey.com/product-detail/en/samsung-electro-mechanics/CL10B202KB8NNNC/1276-1983-2-ND/3887641
	C10 4	1.7UF 16V	402	100	\$0.76 https://www.digikey.com/product-detail/en/yageo/RC0402FR-0720KL/311-20.0KLRTR-ND/726557
	R4 2	20K OHM 1% 1/	402	100	\$0.76 https://www.digikey.com/product-detail/en/yageo/RC0402FR-0720KL/311-20.0KLRTR-ND/726557
	R5 1	100UF 10% 16V	2917	10	\$10.87 https://www.digikey.com/product-detail/en/avx-corporation/TPSD107K016R0100/478-9140-2-ND/1473044
esistor	3	30kOhm	0402	1	\$0.45 https://www.digikey.com/product-detail/en/panasonic-electronic-components/ERA-2AEB303X/P30KDCCT-ND/1706218
с моток		DRV8871	8-PowerSOIC	12	\$22.93 https://www.digikey.com/product-detail/en/texas-instruments/DRV8871DDAR/296-43024-1-ND/5722182
apacitor	4	17uF	Radial, Can - SM	1	\$0.56 https://www.digikey.com/product-detail/en/nichicon/UCM1C470MCL1GS/493-14529-1-ND/5800229