

Power Circuitry									
Part	Description	Quantity	Package	Digi-Key #	Price (1)	Notes	Eagle		
LM3940IT-3.3 /NOFB	Low-Dropout 3.3V Voltage Regulator	1	Through-Hole	LM3940IT-3.3 /NOFB-ND	1.75	Need low temperature. Else: 497-1491-5 ND (0.61)			
	0.47uF Capacitor	1	Surface Mount	445-1320-1-ND					
	22uF Capacitor	1	Surface Mount	445-8028-1-ND		22-33 (marked as 33 on board)			
	USB female connector	1	Surface Mount						
	Low-Dropout 5V Voltage Regulator	1	Through-Hole			Optional			
A26228-ND	Female Header Jumper	2	Through-Hole	A26228-ND	0.157	Must purchase in quantity of 10			
ADC									
Part	Description	Quantity	Package	Digi-Key #	Price (1)	Notes	Eagle		
MCP3008-I/SL	10 bit Analog to Digital Converter	1	Surface Mount	MCP3008-I/SL-ND	2.63				
	22K Ohm Resistor	1	Surface Mount	P22KGGCT-ND	0.1		R0603		
	33K Ohm Resistor	1	Surface Mount	P33KGGCT-ND	0.1		R0603		
ECG Electrode Sensor									
Part	Description	Quantity	Package	Digi-Key #	Price (1)	Notes			
2N3904	NPN Transistor	1	Through-Hole	2N3904D26ZCT-ND	0.19				
	47K Ohm Resistor	1	Surface Mount	P47KGGCT-ND	0.1				
	100K Ohm Resistor	1	Surface Mount	P100KGGCT-ND	0.1		R0603		
	Terminal Blocks	2							
Status /Guide Lights									
Part	Description	Quantity	Package	Digi-Key #	Price (1)	Notes	Eagle		
	Green LED	2	Surface Mount	Ebay	cheap	(Could use different combo of LED and resistor)	Body: 3.16mm x 1.57mm	Pad edges: 4mm x 2.5mm	Pad-width: 0.5mm
	470 Ohm Resistor	2	Surface Mount	P470GGCT-ND	0.1		R0603		
ECG Circuit									
Part	Description	Quantity	Package	Digi-Key #	Price (1)	Notes	Eagle		
INA321EA OPA4340UA	Instrumentation Amplifier	1	Surface Mount	INA321EACT-ND	3.24				
	Quad Op-Amp	1	Surface Mount	OPA4340UA-ND	6.94				
	47K Ohm Resistor	3	Surface Mount	P47KGGCT-ND	0.1	All resistors have huge price break for bigger quantities	R0603		
	100K Ohm Resistor	2	Surface Mount	P100KGGCT-ND	0.1		R0603		
	2.2M Ohm Resistor	2	Surface Mount	P2.2MGGCT-ND	0.1		R0603		
	1M Ohm Resistor	3	Surface Mount	P1.0MGGCT-ND	0.1		R0603		
	3.3K Ohm Resistor	1	Surface Mount	P3.3KGGCT-ND	0.1		R0603		
	820 Ohm Resistor	1	Surface Mount	P820GGCT-ND	0.1		R0603		
	4.7K Ohm Resistor	1	Surface Mount	P4.7KGGCT-ND	0.1		R0603		
	0.1uF Capacitor	4	Surface Mount	445-1316-1-ND	0.1		C0603		
	4.7nF Capacitor	1	Surface Mount	399-9092-1-ND	0.1		C0603		
	1uF Capacitor	1	Surface Mount	445-1321-1-ND	0.1		C0603		
	Scale Circuit								
Part	Description	Quantity	Package	Digi-Key #	Price (1)	Notes	Eagle		
MCP6004-E/SL	Quad Op-Amp	1	Surface Mount	MCP6004-E/SL-ND	0.65		14SOIC		
MCP6L02T-E/SN	Dual Op-Amp	1	Surface Mount	MCP6L02T-E/SNCT-ND	0.42		8SOIC		
	100K Ohm Resistor	8	Surface Mount	P100KGGCT-ND	0.1		R0603		
	100 Ohm Resistor	5	Surface Mount	P100GGCT-ND	0.1		R0603		
IR Temp Circuit									
Part	Description	Quantity	Package	Digi-Key #	Price (1)	Notes			
	IR Temp sensor	1	Through-hole	MLX90614ESF-BAA-000-TU	12.49				
	0.1uF Capacitor	1	Surface Mount	445-1316-1-ND	0.1		C0603		
	4.7K Ohm Resistor	2	Surface Mount	P4.7KGGCT-ND	0.1		R0603		
Screw Terminals									
Part	Description	Quantity	Package	Digi-Key #	Price (1)	Notes			
1776275-2	2 pin screw terminals	5		A98036-ND					
1776275-3	3 pin screw terminals	1		A98037-ND					
1776275-4	4 pin screw terminals	2		A98038-ND					
Pin Expansion Options									
Part	Description	Analog / Digital	# Pins (got/given)	Digi-Key #	Price (1)	Notes			
74HC595PW	Output shift registers	Digital	8 / 4	568-2263-1-ND	0.59	latched, daisy-chainable			
CD74HC194	Input shift registers	Digital	8 / 3	296-12794-1-ND	0.64	daisy-chainable			
MCP23S17	I/O expansion	Digital	16 / SPI	MCP23S17-E/80-ND	1.51	This is what is used on the shield			