	Setup + Materials Required	Note
1	DC Volt Meter	
2	Function Generator	
3	Reflow Oven	
4	Solder Paste	
5	Oscilloscope	
6	Connecting Cables	
7	Soldering Iron	
8	DC Power supply	
9	PCBs	
10	Components	
11	DAQ	

Board General	Ideal Value	Measured Value	Note
Visual inspection		Silkscreen is trash	Check for any shorting with a multi meter
PWR (Vcc)	5 [V]	5 [V]	
VCC-	-5 [V] +/- 0.5	-4.83 [V]	
GND	0 [V]	0	
Red LED	ON	ON	V Bright
Blue LED	ON	ON	V Bright
Orange LED	ON	ON	

DC-DC	Ideal Value [V]	Measured Value
Pin 8 (Vcc)	5	5 [V]
Pin 5 (Vcc-)	-5	-4.83 [V]
GND	0	0

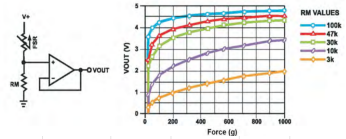
FSR Circuit	Ideal Value	Measured Value
Pin 5 (Vcc)	5 [V]	
Pin 2 (Vcc-)	-5 [V]	
FSR In	Varying Sig	
FSR Out (FSR)	See Table	>>>>>>>>>>>

FSR Out Load Test	Ideal Value [V]	Measured Value [V]	Notes
0.1	1.8	0.2	Should give linearly corresponding voltages
0.2	2.25	0.6	Should give linearly corresponding voltages
0.5	2.9	1	Should give linearly corresponding voltages
0.8	3.25	1.5	Should give linearly corresponding voltages
1	3.4	1.9	Should give linearly corresponding voltages

FSR works fine within the range of 0 - 5 with larger force, might need to adjust R value

EMG Circuit

EMG Pre-Amp	Ideal Value	Measured Value	Note
Pin 7 (Vcc)	5 [V]		Tested using function generator at electrodes
Pin 4 (Vcc-)	-5 [V]		0-6mV, 0-1000 Hz sinusoidal signal
Pin 1 & 8 (Rg = 310.97) G =161.78 Vin = 10mV	1.62V	1.44V	0ff by .0.18V
Pin 1 & 8 (Rg= 4.7k) G = 11.64 Vin 100mV	1.16V	1.3V	off by 0.14V
freq	match function gen		
Pin 5 (GND)			Include GND cnxtn (connected wire directly)
c1 (10pF)			Footprint is very small, might need to replace



EMG Amp-Filt	Ideal Value	Measured Value	Note
Pin 4 (Vcc)	5 [V]		
Pin 11 (Vcc-)	-5 [V]		
Pin 7 (HI_PASS)	Signal should be filtered		Minimal signal below 20Hz
	Anything below 20Hz should be filtered	Starts decreasing after 20Hz, fully gone at 2Hz	Minimal signal above 20Hz
Pin 1 (LO_PASS)	Signal above 700Hz should be filtered	Starts decreasing after 700Hz	Minimal signal above 700Hz
	Signal should not be effected		Minimal signal below 700Hz
Pin 14 (AMP_OUT)		range is within +5 and -5 V	Gain ~100
Pin 8 (EMG)	Signal above 500Hz should be filtered	Starts decreasing after 500Hz, fully filtered at 3kHz	Minimal signal above 500Hz
	Signal should not be effected		Minimal signal below 500Hz
3.3uF cap missing	Replaced with throughhole		

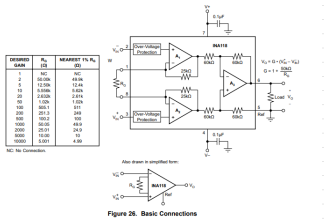


Figure 26. Basic Connections

IMU Circuit

Voltage Regulator	Ideal Value	Measured value	
Pin 3 (Vcc)	5 [V]	5	
Pin 1 (GND)	0 [V]	0	
Pin 2 & 4 (Vff)	3.3 [V] +/- 0.5	3.28	Order 1uF capacitor (402) - move closer to Voltage regulator. Make pads smaller for these capacitors
IMU	Ideal Value		
Vff	3.3 [V]	3.28	
GND	0 [V]	0	
Accelerometer	respected value	Corresponds to IMU movement	
Gyroscope	respected value	Corresponds to IMU movement/orientation	