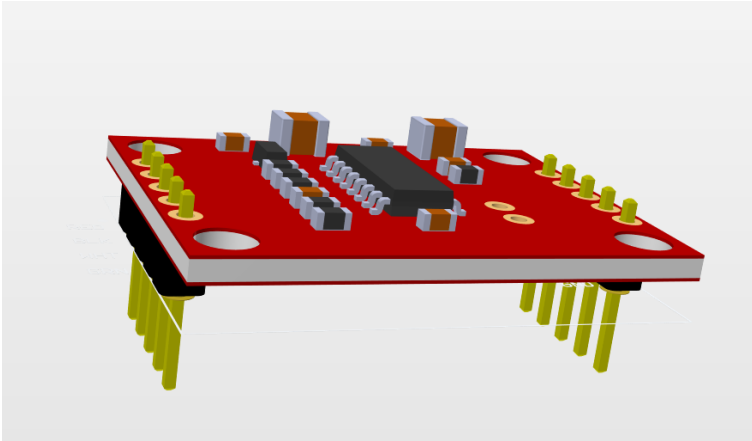# PCB Assembly Guide
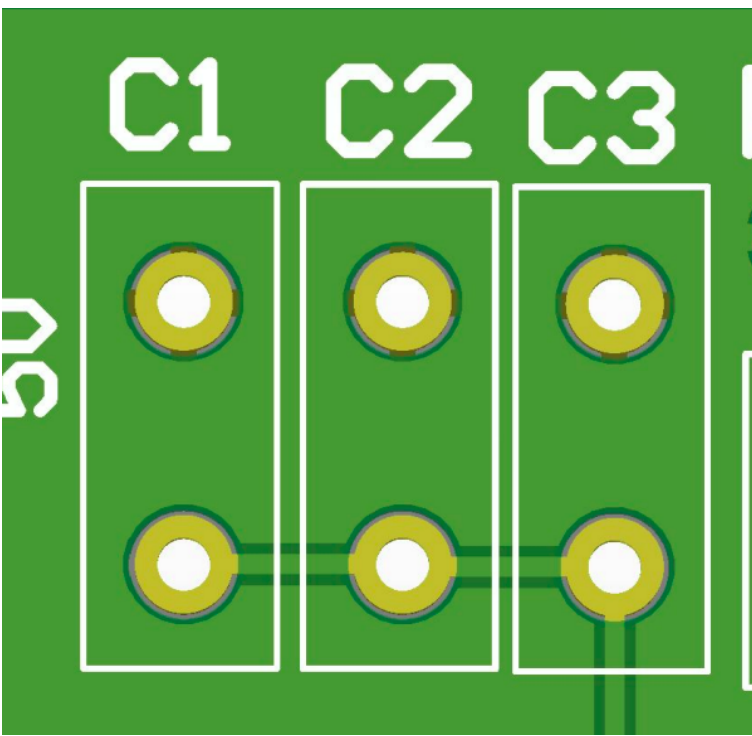

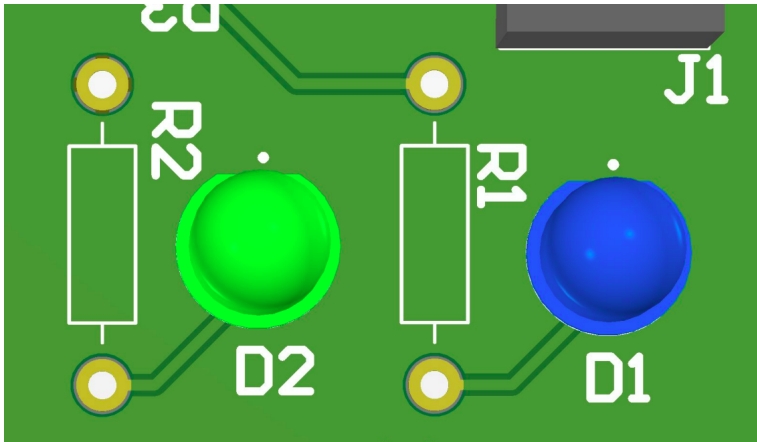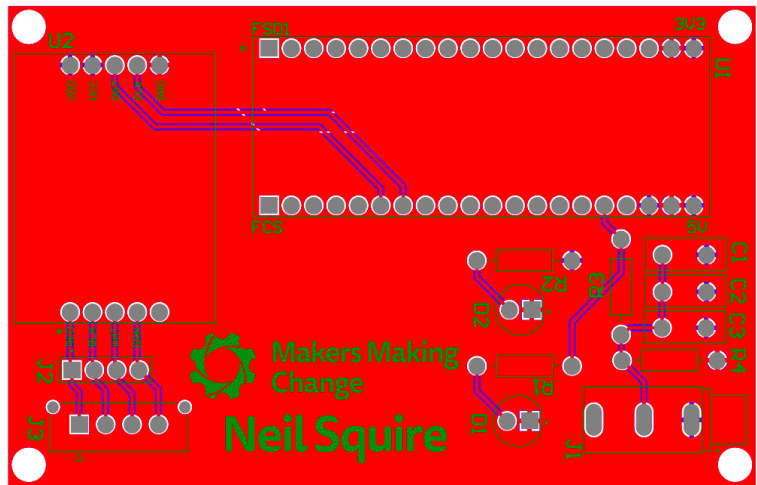# Materials

1 - Printed 2 Layer Board (we used JLCPCB, refer to design and gerber files)

1 - ESP32-PICO-D4

1 - Load Cell Amplifier (HX711), part number SEN-13879)

2 - 5x1 Standard 0.1" header (for the amplifier)

1 - Molex 436500427

1 - MJ-3502

1 - LED TH 5mm Blue

1 - LED TH 5mm Green

1 - 0.33uF TH Capacitor (or 3 0.1uF TH capacitors)

1 - 22kΩ TH Resistor

1 - 4.7kΩ TH Resistor

2 - 220Ω TH Resistors

Instructions

1.	Solder the 5x1 headers onto the load cell amplifier (if it does not come pre-soldered)	
2.	If you are using one 0.33uF capacitor, ignore the other two pads, otherwise solder all three 0.1uF capacitors	

3.	Solder and be sure to note the polarities of the LEDs	
3.	Solder all other components onto the board, making note of the polarities as shown in the document. The BOM is shown in the pdf in a separate document (Page 1 and 4 which shows a clear view of all part designators).	

Comment	Description	Designator	Footprint	LibRef	Quantity
0.33uF	Standard Capacitor, Through Hole	C1, C2, C3	TH CAPACITOR	Capacitor	3
LED	2V Blue LED Through Hole	D1	LED TH BLUE	LED Blue	1
LED	2V Green LED Through Hole	D2	LED TH GREEN	LED Green	1
MJ-3502	3.5 mm, Mono, Right Angle, Through Hole, Threaded Bushing, Audio Jack Connector	J1	MJ-3502N	MJ-3502	1
1x4 Header	Standard 0.1" Header 1x4	J2	1x4 Standard Header	1x4 Header	1
Molex 436500427	Molex MicroFit 3.0 Header 1x4, mates with 0436450400	J3	MOLEX_436500427	Molex 436500427	1
220 Ohms	Standard Resistor, Through Hole, 1/8W	R1, R2	TH Resistor	Resistor	2
22k	Standard Resistor, Through Hole, 1/8W	R3	TH Resistor	Resistor	1
4.7k	Standard Resistor, Through Hole, 1/8W	R4	TH Resistor	Resistor	1
ESP32-PICO-D4	ESP32 Wifi Bluetooth Eval Board	U1	ESP32-PICO-KIT	ESP32-PICO-KIT	1
LOAD CELL AMP HX711	HX711 Load Cell Amplifier	U2	SEN-13879	LOAD CELL AMP HX711	1