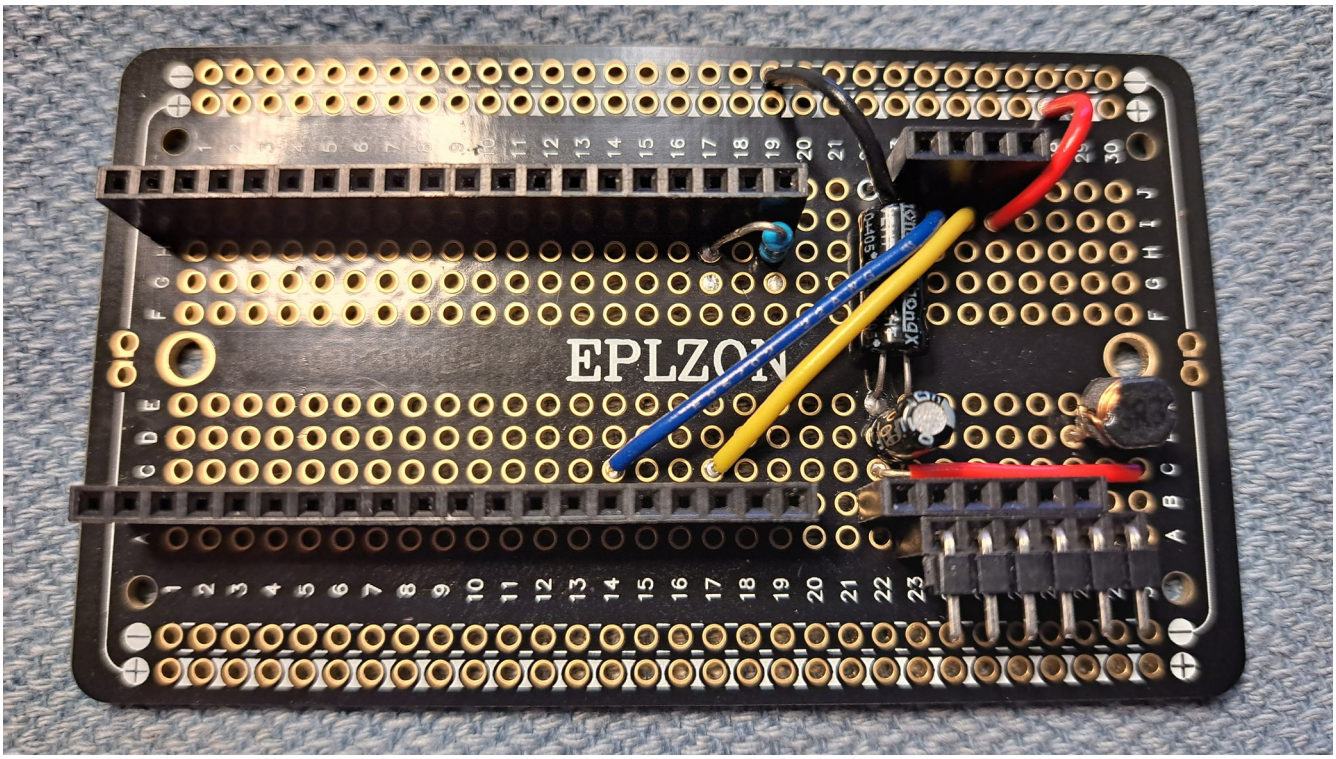
I almost always base my projects on PCB clones of breadboards to make planning easier. In rare cases, I will use plain old point-to-point boards if it doesn’t involve a lot of jumper connections. Here’s a link to the boards I used in the photos.

https://www.amazon.com/gp/product/B0BP28GYTV/



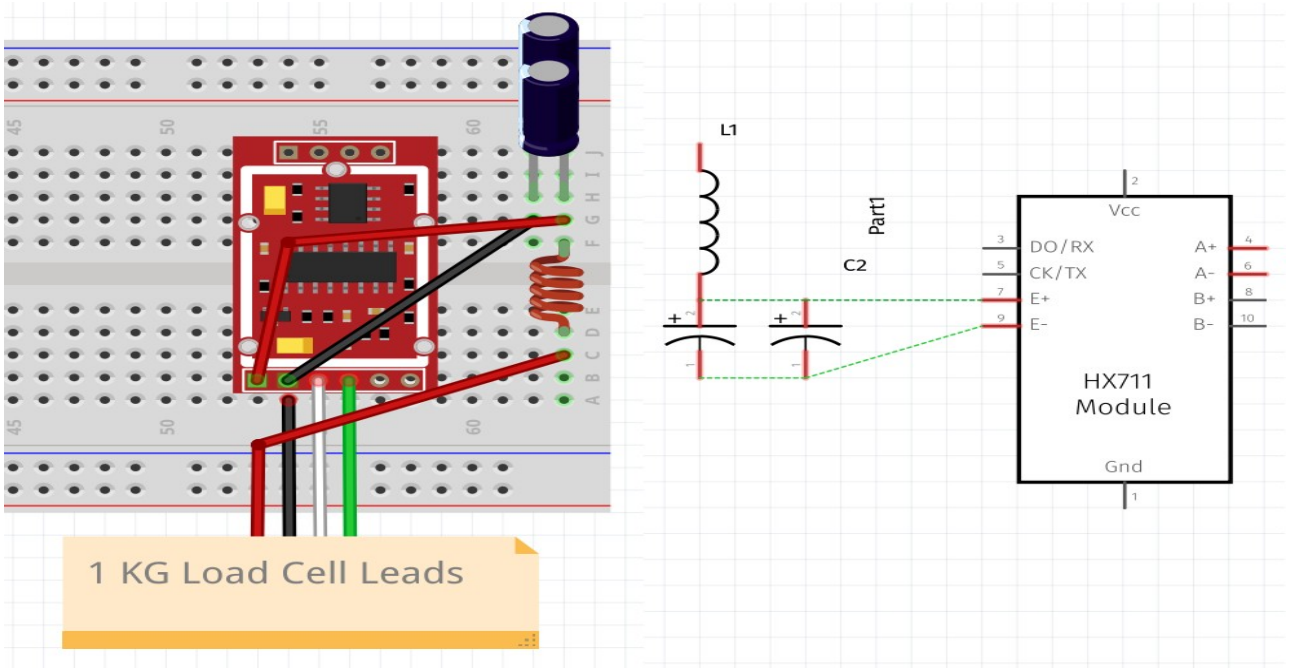
As you can see, there are a few external components used. From PCB pins 17H to 19H there is a 4.7K pull up resistor which is from the 3.3V pin of the ESP32 to GPIO 36 for the DS18B20 OneWire temperature sensor.

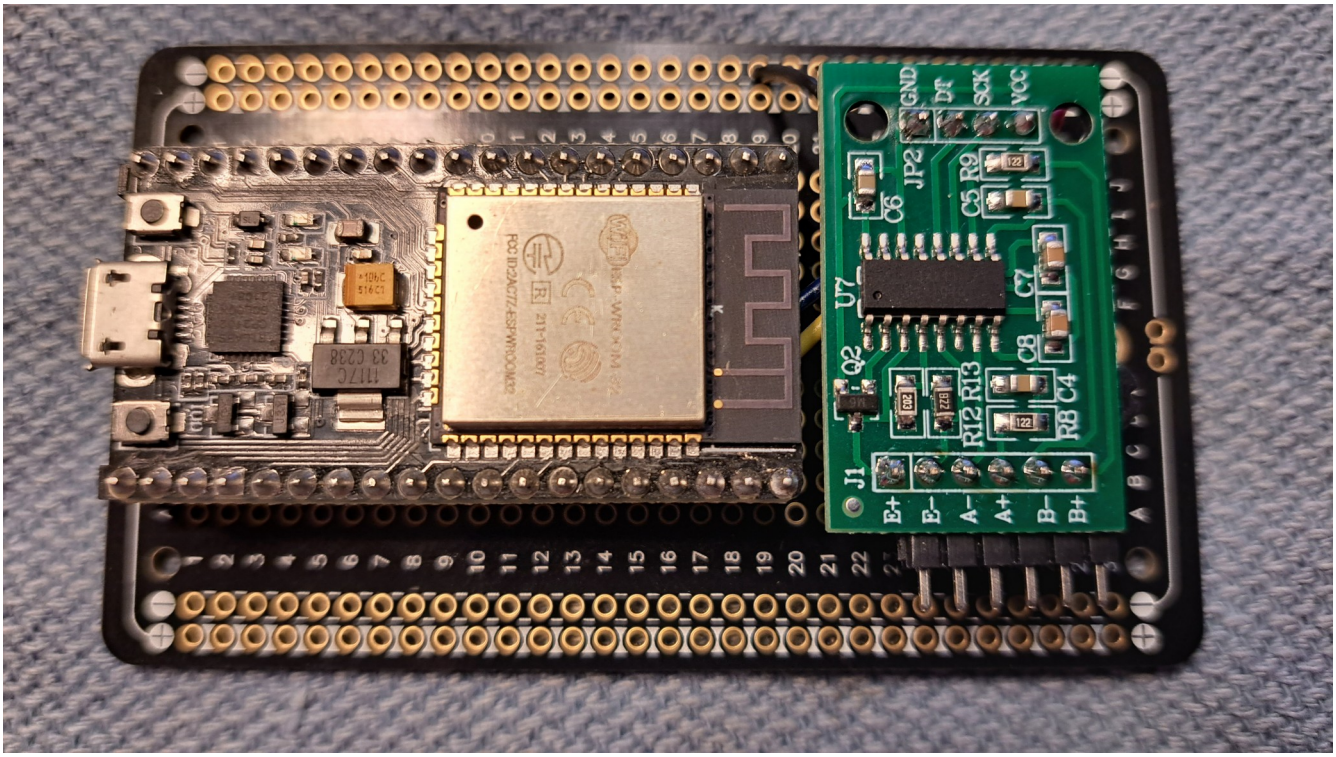
To the right of the ESP32 socket, there Is a socket for an HX711 load cell amplifier board. Below its 6-pin row, there is another 6-pin socket offset by one pin to the right. This is where the load cell connects, but it is offset so that a noise filter can be inserted into the path of the red wire (E+) of the load cell.

The pins on the load cell socket are black (E-), white (A-), green (A+), skip two pins, and red (E+) at the far right end.

The noise filter is Sparkfun’s design, not mine. The red (E+) wire first runs through a 3.3 uH inductor before connecting to the E+ pin on the HX711. Two capacitors in parallel are placed across the E+ and E- pins of the HX711. This is because there is no such thing as an 10.1 uF capacitor, so you need to use a 10 and a 0.1 in parallel. I have no idea how they arrived at that value, but I’ll just go along with it and do what they did.

The top row of pins are connected to the 5 volt supply and the I2C GPIO pins of the ESP32. Yellow to clock (GPIO 22) and blue to data (GPIO 21).





As you can see, the ESP32 and HX711 fit nicely on the board and the pins for the load cell are easily accessible to solder the load cell wires onto.