

Contents

| | |
|--|----------|
| 1 Basic load cell resistance checks | 1 |
| 2 Amplifier - HX711 | 1 |
| 2.1 Amplifier schema | 1 |
| 2.2 HX711 library | 1 |
| 2.3 Arduino code | 1 |

1 Basic load cell resistance checks

| Resistance check | Typical 350 Ω |
|------------------|----------------------|
| Ex+ to Ex- | $\sim 410\Omega$ |
| S+ to S- | 350Ω |
| Ex+ to S+ | $\sim 315\Omega$ |
| Ex+ to S- | $\sim 315\Omega$ |
| Ex- to S+ | $\sim 280\Omega$ |
| Ex- to S- | $\sim 280\Omega$ |

2 Amplifier - HX711

2.1 Amplifier schema

Schema

2.2 HX711 library

Download

2.3 Arduino code

```
/*
 * Load Cell HX711 Module Interface with Arduino to measure weight in Kgs
 Arduino
 pin
 2 -> HX711 CLK
 3 -> DOUT
 5V -> VCC
 GND -> GND
```

Most any pin on the Arduino Uno will be compatible with DOUT/CLK.

```

    The HX711 board can be powered from 2.7V to 5V so the Arduino 5V power should be fine
*/

#include "HX711.h" //You must have this library in your arduino library folder

#define DOUT 3
#define CLK 2

HX711 scale(DOUT, CLK);

//Change this calibration factor as per your load cell once it is found you may need
float calibration_factor = -96650; //-106600 worked for my 40Kg max scale setup

//=====
//                                SETUP
//=====
void setup() {
    Serial.begin(9600);
    Serial.println("Press T to tare");
    scale.set_scale(-96650); //Calibration Factor obtained from first sketch
    scale.tare();           //Reset the scale to 0
}

//=====
//                                LOOP
//=====
void loop() {
    Serial.print("Weight: ");
    Serial.print(scale.get_units(), 3); //Up to 3 decimal points
    Serial.println(" kg"); //Change this to kg and re-adjust the calibration factor if y

    if(Serial.available())
    {
        char temp = Serial.read();
        if(temp == 't' || temp == 'T')
            scale.tare(); //Reset the scale to zero
    }
}
//=====

```

Datasheet