**Idea:**

**Load cells: how to:**

**Joy-it SEN-HX711-05 Weegcel 1 stuk(s)**

5 kg

M4 gaten

M5 gaten

Afbeelding met elektronica, Elektronische engineering, slot

Automatisch gegenereerde beschrijving

<https://www.conrad.be/nl/p/joy-it-sen-hx711-05-weegcel-1-stuk-s-2475884.html>

**Joy-it SEN-HX711-10 Weegcel Geschikt voor Arduino, Raspberry Pi® 1 stuk(s)**

5 kg

M4 gaten

<https://www.conrad.be/nl/p/joy-it-sen-hx711-10-weegcel-geschikt-voor-arduino-raspberry-pi-1-stuk-s-2475885.html>

**Joy-it SEN-HX711-20 Weegcel 1 stuk(s)**

20 kg

<https://www.conrad.be/nl/p/joy-it-sen-hx711-20-weegcel-1-stuk-s-2475886.html>

**Iduino TC-9520292 Sensor-module 1 stuk(s) Geschikt voor serie: Arduino**

0-0.5 kg

<https://www.conrad.be/nl/p/iduino-tc-9520292-sensor-module-1-stuk-s-geschikt-voor-serie-arduino-2380073.html>

**How to control that the load cell still works:**

Ohm measurement should give 1 k Ω on two wire sets and around 770 Ω on any other combination

Black and red = 980 Ω

Green and white = 980 Ω

Black and white = 770 Ω

Green and red = 770 Ω

**How to calibrate and how to use:**

Indrek:

<https://www.youtube.com/watch?v=sxzoAGf1kOo&t=189s>

code and written explanation

**Prototype 2:**

Table 20mm x 150mm x 100mm

Spacer

Load cell 5kg

Spacer

Tableblock 20mm x 150mm x 100mm (connected with M4 and M5)

**connections from load cell to arduino:**

Afbeelding met tekst, gereedschap, Elektronische engineering, stroomkring

Automatisch gegenereerde beschrijving

<https://www.youtube.com/watch?v=sxzoAGf1kOo&t=189s>

Afbeelding met elektronica, stroomkring, Elektronische engineering, Stroomkringonderdeel

Automatisch gegenereerde beschrijving

DT to D5

SCK to D4

Code update load cell: 2023-06-20

Do not use the old method of : Download the HX711 library: <https://github.com/olkal/HX711_ADC>

unpack

upload to: C:\Users\smeu542\OneDrive - Hogeschool Gent\Documenten\Arduino\libraries

This will let you run into trouble

In the new Arduino IDE, libraries have to be uploaded using the menu>tools>manage libraries function. There search for HX711\_ADC and download latest version

If you want to run the examples from HX711\_ADC goto:

menu>file>examples>HX711\_ADC>Callibration

See also code for raspberry pi or python in :

pj2-sen-hx711-manual-2021-10-13-2718.pdf

<https://www.joy-it.net/files/files/Produkte/SEN-HX711-01/SEN-HX711_Manual_2021-10-13.pdf>

**code:**

"C:\Users\smeu542\OneDrive - Hogeschool Gent\PROJECTEN\2017-20XX faagexperimenten\toestellen en producten\2023-05-05 pressure system arduino TTPventus\2023-10-15 load cell 5 kg for ram 2\Calibration\_5kg"

"C:\Users\smeu542\OneDrive - Hogeschool Gent\PROJECTEN\2017-20XX faagexperimenten\toestellen en producten\2023-05-05 pressure system arduino TTPventus\2023-10-15 load cell 5 kg for ram 2\Read\_1x\_load\_cell\_5kg"

**Maak dat de pins correct zijn genummerd. Er zijn veel scripten waar pinnen 2 3 4 5 random door elkaar gebruikt worden waardoor de codes niet eenduidig zijn en waardoor de metingen niet kunnen worden uitgevoerd**

const int HX711\_dout = 5; //mcu > HX711 dout pin

const int HX711\_sck = 4; //mcu > HX711 sck pin

**code for callibration:**

After running Arduino script: file/examples/HX711\_ADC/callibration

**Calibrating a new load cell:**

Load sketch calibration

The sketch works on 57600 baud rate

Start serial monitor

Start tara function with t

Send 't' from serial monitor to set the tare offset.

Tare complete

Now, place your known mass on the loadcell.

Then send the weight of this mass (i.e. 100.0) from serial monitor.

Known mass is: 500.00

New calibration value has been set to: XXXX.XX

, use this as calibration value (~~calFactor~~) (calibrationValue) in your project sketch.

Save this value to EEPROM adress 0? y/n

**Change rule around 44 in script:** Read\_1x\_load\_cell\_5kg

See rule 44 where the value was set:

44   calibrationValue = XXX.XX; // uncomment this if you want to set the calibration value in the sketch

44 calibrationValue = 429.88; // uncomment this if you want to set the calibration value in the sketch

For loadcell 5kg in setting with big slabs: