**Libraries:**

HX711

Serial

Servo

**Arduino:**

Units: Standard\Metric ->Boolean

Stop Value: measure or control -> Float (Read from Serial)

S: Stop

T: Tare

F: Forward

B: Backward

\*\*: Value to measure to

Read Value: Raw value from hx711 ->Float (Written to Serial)

Offset: tare() ->Boolean

Run Forward: Interrupt ->Boolean

Run Back: Interrupt ->Boolean

Stop: Interrupt ->Boolean

Output: Messages to user -> String (Written to Serial)

**Processing:**

Output: Messages to user -> String (Read from Serial)

Input: value, measure or control -> Float (Written to Serial)

S: Stop

T: Tare

F: Forward

B: Backward

\*\*: Value to measure to

Run Forward: ->Boolean

Run back: -> Boolean

Stop: -> Boolean

Tare: -> Boolean

Output: Label

Input: Text Box

Forward: Button

Backward: Button

Stop: Button

Tare: Button

Units Standard: Stateful Button

Units Metric: Stateful Button

“You need to just use a bit of math, so it will depend on how good your inner child is at math.  
You use the standard formula for slope and intersection: y = mx + b ... or m = (y - b)/x  
Here

* y is the actual weight in whatever units you want (g, kg, oz, etc)
* x is the raw value from the HX711 - from scale.read\_average()
* m is your slope (multiplier)
* b is your intersection (offset) - also from scale.read\_average() but with no weight, or using scale.tare()

So say you have a raw value of 10000 for 0 weight (tare) and 20000 for 1000g, and want readings in g  
First, your offset (b) is 10000  
To calculate your multiplier (m) just substitute into the formula  
1000 = m \* 20000 + 10000 ... or m = (1000 - 10000) / 20000  
Thus m = -0.45

Your numbers will be completely different, but the method is the same.  
You then put these values into your sketch via scale.set\_scale(m) and scale.set\_offset(b)  
Even better if you don't hard-code them but allow them to be calculated/updated on demand, as they may change over time due to various reasons.  
The example sketch that comes with the library partially shows this process.”