

IMPLEMENTATION OF RESOURCEWELL DISPENSER

CODE:

```
#include "HX711.h"
```

```
#define LOADCELL_DOUT_PIN 2
```

```
#define LOADCELL_SCK_PIN 3
```

```
#define relay 9
```

```
HX711 scale;
```

```
float calibration_factor = 200000; //-71000, -311000 worked for my  
440lb max scale setup //-751000
```

```
void setup() {
```

```
    Serial.begin(9600);
```

```
    pinMode(relay,OUTPUT);
```

```
    Serial.println("HX711 calibration sketch");
```

```
    Serial.println("Remove all weight from scale");
```

```
    Serial.println("After readings begin, place known weight on scale");
```

```
    Serial.println("Press + or a to increase calibration factor");
```

```
    Serial.println("Press - or z to decrease calibration factor");
```

```
scale.begin(LoadCell_DOUT_PIN, LoadCell_SCK_PIN);  
scale.set_scale();  
scale.tare(); //Reset the scale to 0
```

```
long zero_factor = scale.read_average(); //Get a baseline reading  
Serial.print("Zero factor: "); //This can be used to remove the need to  
tare the scale. Useful in permanent scale projects.  
Serial.println(zero_factor);  
}
```

```
void loop() {
```

```
scale.set_scale(calibration_factor); //Adjust to this calibration factor  
Serial.print("Reading: ");  
Serial.print(scale.get_units(), 3);
```

```
float load=scale.get_units() ;  
Serial.print(" lbs"); //Change this to kg and re-adjust the calibration  
factor if you follow SI units like a sane person  
// Serial.print(" calibration_factor: ");  
// Serial.print(calibration_factor);
```

```
Serial.println();  
delay(1000);
```

```
if(load>0.50 && load<0.100)
{
    digitalWrite(relay,HIGH);
    delay(5000);
    digitalWrite(relay,LOW);
}
else if(load>0.100 && load<0.200)
{
    digitalWrite(relay,HIGH);
    delay(10000);
    digitalWrite(relay,LOW);
}
else if(load>0.200 && load<0.400)
{
    digitalWrite(relay,HIGH);
    delay(15000);
    digitalWrite(relay,LOW);
}
else if(load>0.400 && load<0.600)
{
    digitalWrite(relay,HIGH);
    delay(20000);
    digitalWrite(relay,LOW);
}
```

```
else if(load>0.600)
{
    digitalWrite(relay,HIGH);
    delay(25000);
    digitalWrite(relay,LOW);
}
else
{
    digitalWrite(relay,LOW);
}
if(Serial.available())
{
    char temp = Serial.read();
    if(temp == '+' || temp == 'a')
        calibration_factor += 10;
    else if(temp == '-' || temp == 'z')
        calibration_factor -= 10;
}
}
```