

IV_BAG_Sample_code.ino

```
#include
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LiquidCrystal_I2C lcd(0x27, 20, 4);
#include "HX711.h"
#define DOUT 23
#define CLK 19
#define BUZZER 25
HX711 scale(DOUT, CLK);
#define BLYNK_PRINT Serial

char auth[] = "soumya";
char ssid[] = "soumya";
char pass[] = "soumya#123";

int liter;
int val;
float weight;
float calibration_factor = 102500; // change this value for your Load cell sensor

void setup() {
  // Set up serial monitor
  Serial.begin(115200);
  lcd.init();
  lcd.backlight();
  pinMode(BUZZER ,OUTPUT);
  Serial.println("Remove all weight from scale");
  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);
  Blynk.begin(auth, ssid, pass);
}
void loop() {
  Blynk.run();
  measureweight();
}

void measureweight(){
  scale.set_scale(calibration_factor); //Adjust to this calibration factor
  weight = scale.get_units(5);
  if(weight<0)
  {
    weight=0.00;
  }
}
```

```
liter = weight*1000;
val = liter;
val = map(val, 0, 505, 0, 100);
lcd.clear();
lcd.setCursor(1, 0);
lcd.print("IOT Based IV Bag");
lcd.setCursor(2, 1);
lcd.print("Monitering System");
Serial.print("Kilogram: ");
Serial.print(weight);
Serial.println(" Kg");
lcd.setCursor(1, 2);
lcd.print("IV Bottle = ");
lcd.print(liter);
lcd.print(" mL");
Serial.print("IV BOTTLE: ");
Serial.print(liter);
Serial.println("mL");
lcd.setCursor(1, 3);
lcd.print("IV Bag Percent=");
lcd.print(val);
lcd.print("%");
Serial.print("IV Bag Percent: ");
Serial.print(val);
Serial.println("%");
Serial.println();
delay(500);
if (val <= 50 && val >= 40){
  Blynk.logEvent("iv_alert","IV Bottle is 50%");
  digitalWrite(BUZZER, HIGH);
  delay(50);
  digitalWrite(BUZZER, LOW);
  delay(50);
}
else if (val <= 20){
  Blynk.logEvent("iv_alert","IV Bottle is too LOW");
  digitalWrite(BUZZER, HIGH);
}
else{
  digitalWrite(BUZZER, LOW);
}
Blynk.virtualWrite(V0,liter);
Blynk.virtualWrite(V1,val);
}
```