

## Digital Force and Weight Measurement System

Arduino Code:

```
#include <HX711_ADC.h>
#include <LiquidCrystal.h>
// HX711 pins
#define DT 3
#define SCK 2
HX711_ADC LoadCell(DT, SCK);
// LCD(rs, en, d4, d5, d6, d7)
LiquidCrystal lcd(7, 6, 5, 4, 9, 8);
void setup() {
    Serial.begin(9600);
    // LCD init
    lcd.begin(16, 2);
    lcd.clear();
    lcd.print("Initializing...");
    // HX711 init
    LoadCell.begin();
    delay(500);
    // Start and tare load cell
    LoadCell.start(2000); // wait for stabilization
    LoadCell.setCalFactor(1.0); // temporary calibration
    lcd.clear();
    lcd.print("Ready");
    delay(1000);
}
void loop() {
    LoadCell.update();
    float force = LoadCell.getData(); // raw value
    lcd.setCursor(0, 0);
    lcd.print("Force: ");
    lcd.print(force, 2); // show 2 decimals
```

```
lcd.print(" N  ");
delay(200);

}
```