

```
#include <Wire.h>

#include <Adafruit_GFX.h>

#include <Adafruit_SSD1306.h>


#define SCREEN_WIDTH 128

#define SCREEN_HEIGHT 64

#define OLED_RESET -1


Adafruit_SSD1306 display(SCREEN_WIDTH, SCREEN_HEIGHT, &Wire, OLED_RESET);


int supercapPin = A0; // Voltage from supercapacitor


void setup() {

  Serial.begin(9600);


  // OLED Init

  if (!display.begin(SSD1306_SWITCHCAPVCC, 0x3C)) {

    Serial.println("OLED not found!");

    while (1);

  }


  display.clearDisplay();

  display.setTextSize(1);

  display.setTextColor(WHITE);

}


void loop() {

  int raw = analogRead(supercapPin);
```

```
// Convert ADC reading to voltage
float voltage = (raw / 1023.0) * 5.0;

// Percent (max 2.7V)
float percent = (voltage / 2.7) * 100;
if (percent > 100) percent = 100;

// Display on OLED
display.clearDisplay();
display.setCursor(0, 10);
display.print("Supercap: ");
display.print(voltage, 2);
display.println(" V");

display.setCursor(0, 30);
display.print("Energy: ");
display.print(percent, 0);
display.println(" %");

display.display();

delay(500);
}
```