Zio OLED 0.91in Display Qwiic Start Guide



Introduction

This Zio OLED Display features a whopping 128x32 pixels in a small 0.91in (diagonal) frame. That's 4,000 itsy-bitsy LEDs. [pause for effect]

Zio OLED Display Qwiic Board Specs:

- Communication Protocols: I2C
- OLED display
- 0.9 in diagonal
- 128 x 32 pixels
- Dimensions with Mounting Tab: 25.1x 50.3mm
- Dimension without Mounting Tab: 50.3x15.1mm
- Weight: 5g

Zio OLED 0.9in Qwiic Board Overview



1. OLED Display

Organic light-emitting diode (OLED) display, used in mobile devices today because they are thin, efficient, flexible and bright. Ours also has similar capabilities, if not, more awesome, in its own special way. Our little gem can display up to 3 lines of text (don't underestimate it's minute size) for a 0.9in at 128x32 pixels!

2. Qwiic Connector

Our Zio OLED display is incorporated with the <u>Qwiic Connector System</u>. Qwiic is an ecosystem of I2C sensors, actuators, shields, and cables that make prototyping faster and less prone to error.

We have a separate page dedicated to explaining what Qwiic connector is. You can learn more about it <u>here</u>.

Configuring your OLED Display with Zuino M UNO

Helpful Resources:

Before attempting this quice guide you should already read our <u>Zuino M UNO Qwiic Start</u> guide to easily configure your OLED display with Zuino board.

For this section, you should already have the following:

- 1. Zuino M UNO board
- 2. Zio OLED display 0.9in (138x32)
- 3. Qwiic Connector Cable (100mm will do)
- 4. Micro USB Cable
- 5. Arduino IDE



Congratulations! You're now a proud owner of an awesome 0.9in OLED Display by Zio. We will show you how easy it is to configure this little gem and 'Qwiic Start' your awesome project!

Installing Libraries

You need to install the following libraries to your Arduino IDE before you can start programming your Zuino board with Zio Qwiic OLED display.

Download the following libraries and save it on your local folder:

Adafruit GFX library

Adafruit SSD1306

To install the libraries open your Arduino IDE, go to Sketch tab, select Include Library -> Add .Zip Library. Select the above libraries to be included on your IDE.



It is very easy to configure your board with Zio OLED display. Follow the following steps to get started:

Step 1 Connect your OLED display to your Zuino board with Qwiic cable



Step 2 Open Arduino IDE (You should have the right board and COM selected)

And that's it, really! Easy isn't it? Next step is the coding part~

Testing Example Code

Step 3 Test your OLED display with Zuino M UNO

You will learn how to test example codes to show what your OLED display can do. To start off with some example codes, go to File on your IDE, select Examples -> Adafruit SSD1306 -> ssd1306_128x32_i2c

🥺 sketch_nov06a | Arduino 1.8.3

File Edit Sketch Tools Help

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		09.USB	>		
		10.StarterKit_BasicKit	>		
		11.ArduinoISP	>		
		Zio_Qwiic_Mux_TOF			
		Examples for any board			
		Adafruit BMP280 Library	>		
		Adafruit Circuit Playground	>		
		Adafruit INA219	>		
		Adafruit PWM Servo Driver Library	>		
		Adafruit SHT31 Library	>		
		Adafruit SSD1306	2	ssd1306_128x32_i2c	
		Adafruit SSD1351 library	2	ssd1306_128x32_spi	
		Adafruit TCS34725	2	ssd1306_128x64_i2c	
		Adafruit VEML6075 Library	2	ssd1306_128x64_spi	
		arduino-MLX90393-master	>		
		Blynk	>		
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		LiquidCrystal	>		
		Robot Control	>		
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Step 4 Run your code by clicking 💽

If you have configured your OLED and Zuino correctly you will have your OLED display the example codes. You might not understand the codes right now but to put it in simple terms, the code above will show all the things it can do on this cute little OLED screen. A rundown the code can display and print:

- Text
- Bitmaps
- Circles
- Rectangles
- Pixels
- lines

There you have it! You have configured your OLED, and have a basic understanding of what Zio OLED can do. Bravo, Younglings!