Pico Wifi Analyzer Phase 1

Aug 2026

Introduction

There is a lot of information on this Wiki about how to build this project, but don't be fooled, it's a very simple project, and it will take you longer to read the Wiki than it will to build the project :)

The project consists of a Raspberry Pi Pico, an LCD Screen, 4 Wires and a pre-written Python script, very simple. The hardest part of this project will probably be getting a compatible LCD, if you look on Aliexpress, there are hundreds of these LCDs and they cost between £2-£3 each. Buy two in case you break one :)

Before starting this project you must complete the following four tasks, that are on this Wiki, but I will link you them, and they are:

- Using Pico with SSD1306 based I2C LCD - This will show you the wiring for the LCD, and how to do a quick test.
- Connect Pico to Wifi - This is a must, you have to have Wifi connectivity, this will let you test this.
- Find Pico MAC Address - You don't need this unless your router uses MAC Address Filtering.
- Check Device I2C Address - You need the I2C address from your LCD to put in to the Python script.

Phase 1 - Prerequisites
Phase 1 - The Wifi Analyzer Software
Phase 1 - A quick explanation around the UI and Operation
Phase 1 - The Wifi Analyzer Enlcosure.

That is it, you should now be all done and have a working Wifi monitor device. Well done :)