Tutorial: Connecting Raspberry Pi 400 to 1602 I2C LCD Display

🧰 What You Need

Raspberry Pi 400

LCD 1602 with I2C module

4 Female-to-Female jumper wires

🔌 Wiring (I2C LCD)

LCD Pin Connect to Raspberry Pi GPIO

GND Pin 6 (GND)

VCC Pin 4 (5V)

SDA Pin 3 (GPIO2 - SDA)

SCL Pin 5 (GPIO3 - SCL)

Diagram:

LCD Pi 400 GPIO

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GND --> GND (Pin 6)

VCC --> 5V (Pin 4)

SDA --> SDA (GPIO 2 / Pin 3)

SCL --> SCL (GPIO 3 / Pin 5)

🖥️ Step 1: Enable I2C on Raspberry Pi

sudo raspi-config

Go to Interface Options → I2C → Enable

Reboot your Pi

📦 Step 2: Install Required Packages

sudo apt update

sudo apt install i2c-tools python3-smbus python3-pip

pip3 install RPLCD

Check if the LCD is detected:

i2cdetect -y 1

You’ll see something like:

0 1 2 3 4 5 6 7 8 9 A B C D E F

00: -- -- -- -- -- -- -- --

10: -- -- -- -- -- -- -- -- -- -- -- --

20: -- -- -- -- -- -- -- -- -- 27 -- --

Note down the address (usually 0x27 or 0x3F).

🧪 Step 3: Test LCD with Python

from RPLCD.i2c import CharLCD

from time import sleep

lcd = CharLCD('PCF8574', 0x27) # Change 0x27 if needed

lcd.write\_string("Hello from Pi 400!")

sleep(3)

lcd.clear()

Save this as lcd\_test.py and run:

python3 lcd\_test.py

✅ Your LCD should now display the message!