**Step 1:**

**Connections:**

|  |  |
| --- | --- |
| I2C Module | Raspberry Pi |
| VCC | 5V Pin (Pin2) |
| GND | GND (Pin 39 or 9) |
| SDA | SDA(Pin 3/GPIO 2) |
| SCL | SCL(Pin 5/GPIO 3) |

**Step 2:**

**Enable i2c:**

1. In terminal, type the following command:  
   sudo raspi-config
2. Select Interfaces -> I2C -> Enable I2C ->Yes -> Finish
3. Reboot Pi
4. After rebooting the Pi, we need to modify the module’s config file. Type the following command in terminal:  
   sudo nano /etc/modules
5. Add following two lines in modules file if they do not exist:  
   i2c-bcm2708i2c-dev  
   Then Type Ctrl X and Yes then Enter to save the file.

**Step 3:**

**Install Libraries:**

1. Type following command in terminal:  
   sudo apt-get update
2. After completion Type:  
   sudo apt-get install -y python-smbus i2c-tools
3. Then reboot pi.

*sudo reboot*

**Step 4:  
Testing Hardware:**

1. Type in the terminal

sudo i2cdetect -y 1orsudo i2cdetect -y 0

Graphical user interface, text

Description automatically generated

You will see this, 0x27 is my i2c address. It may be different. You need to note yours.

1. Open the code in Thonny.
2. You will see this, in line 6 change the address to your address if it is not 27. It may be 3f .
3. Graphical user interface, text, application

   Description automatically generated
4. In line 87 to 90 you can edit the string, what you want to display on the LCD.
5. Text

   Description automatically generated
6. Then Click on RUN. And you will see the text on the LCD.

Enjoy!

**Note:**

1. You can change the contrast of the LCD by the potentiometer in the i2c module.
2. For 16x2 LCD use the same code but use only LCD\_LINE\_1 and LCD\_LINE\_2.

If you have any problem in this, you can contact me anytime.

Thank you for ordering my services.

Looking forward to work with you on other projects.

Thank You

Regards

Azhar Ali Khan