

# CULTIVATION SYSTEM DEVELOPMENT PH.4 COURSE

## 2 APPENDIX

First edition



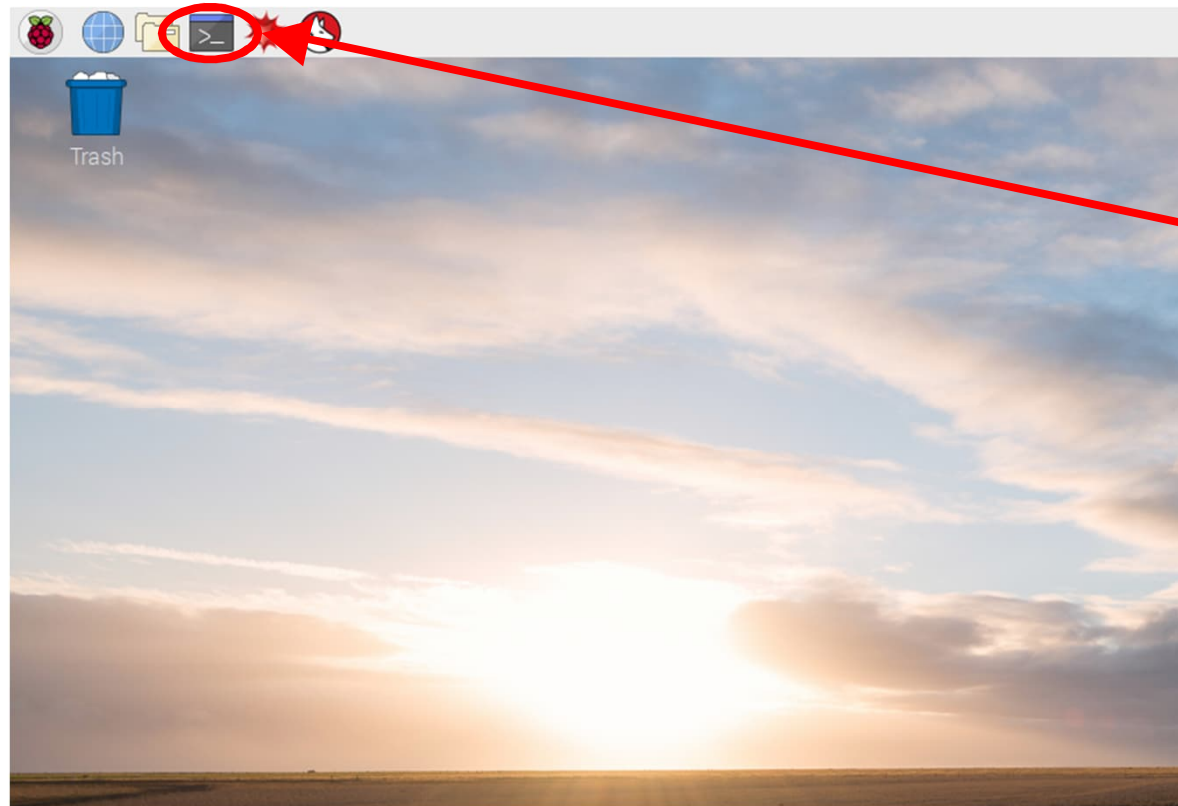
Bright Eyes Academy

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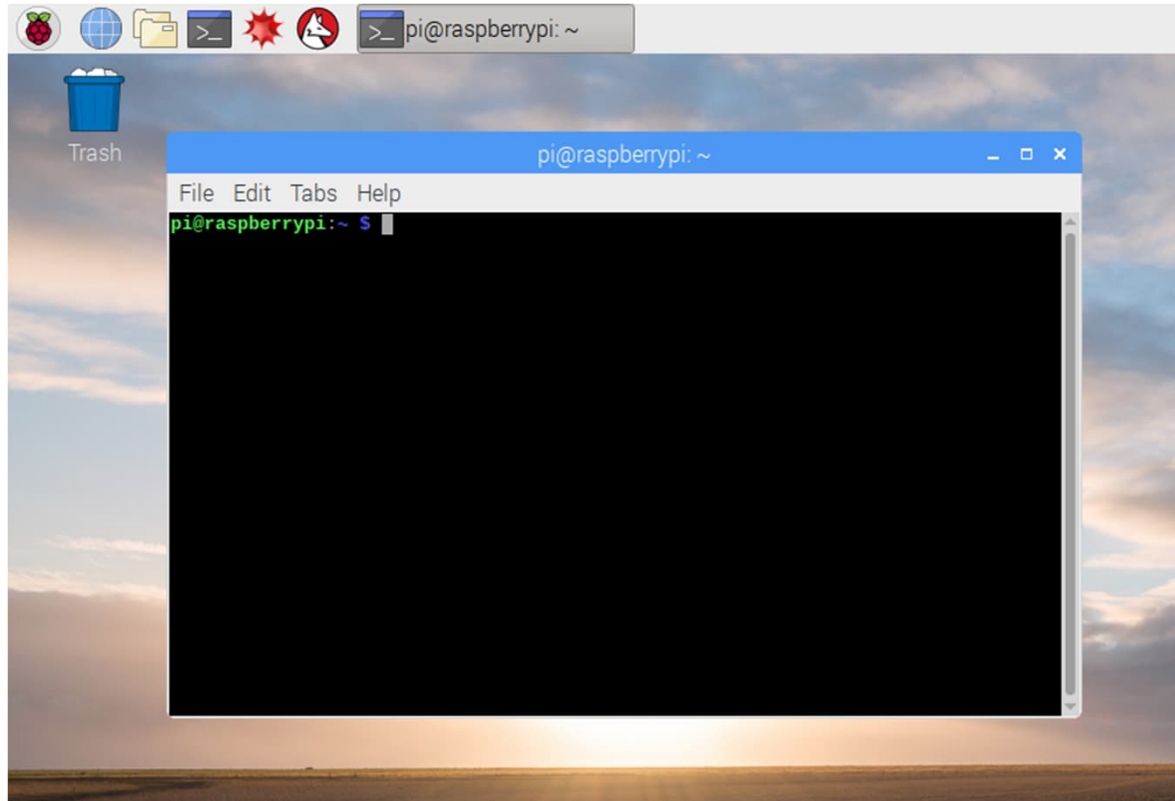
- Set up the I2C interface
- Install the I2C library for the Python

# 1. SET UP THE I2C INTERFACE

I2C interface activation procedure

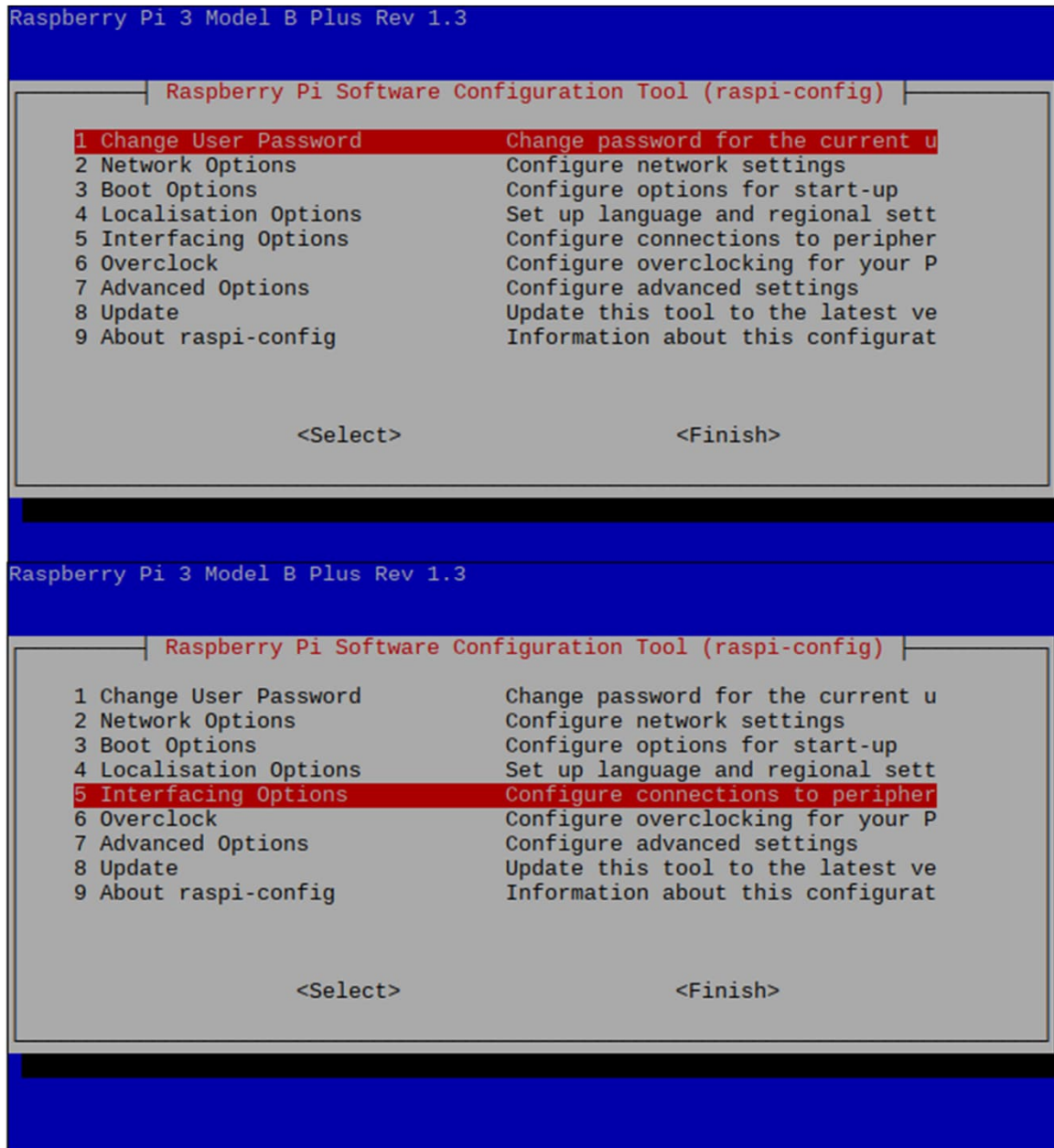


Open the terminal.

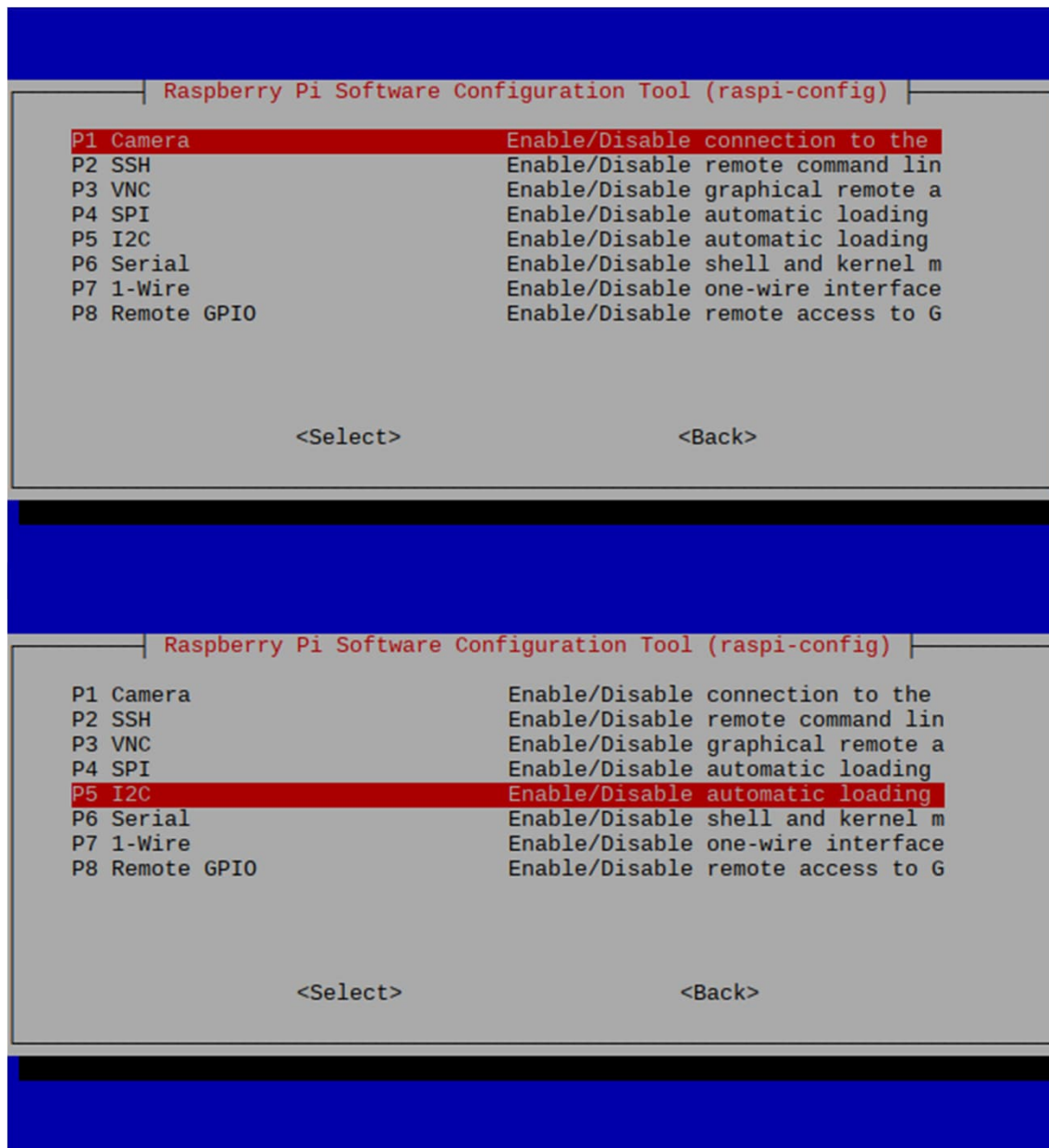


Type “sudo raspi-config” and press Enter.

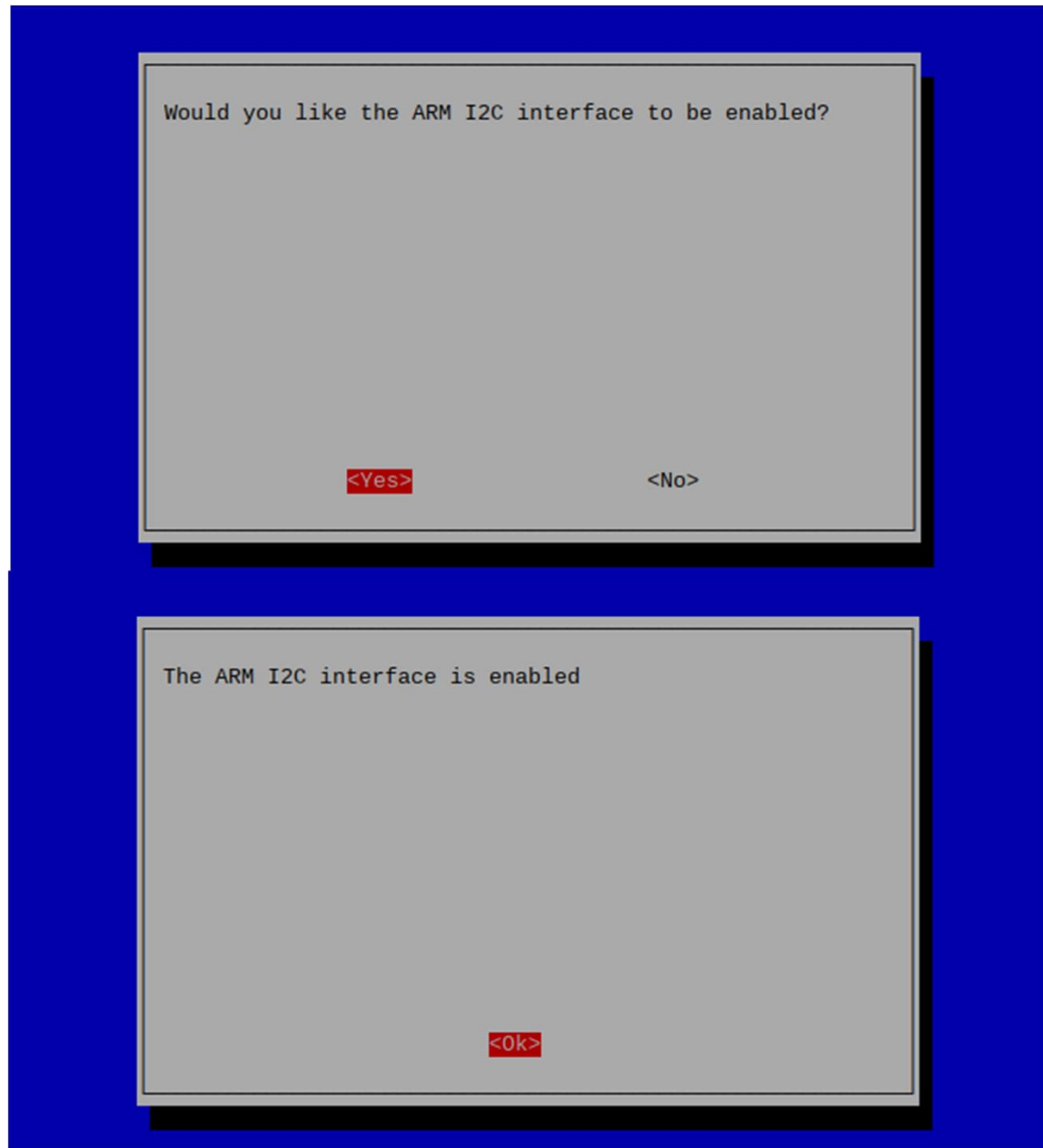
```
pi@raspberrypi:~ $  
pi@raspberrypi:~ $ sudo raspi-config
```



Select 5 Interfacing Options

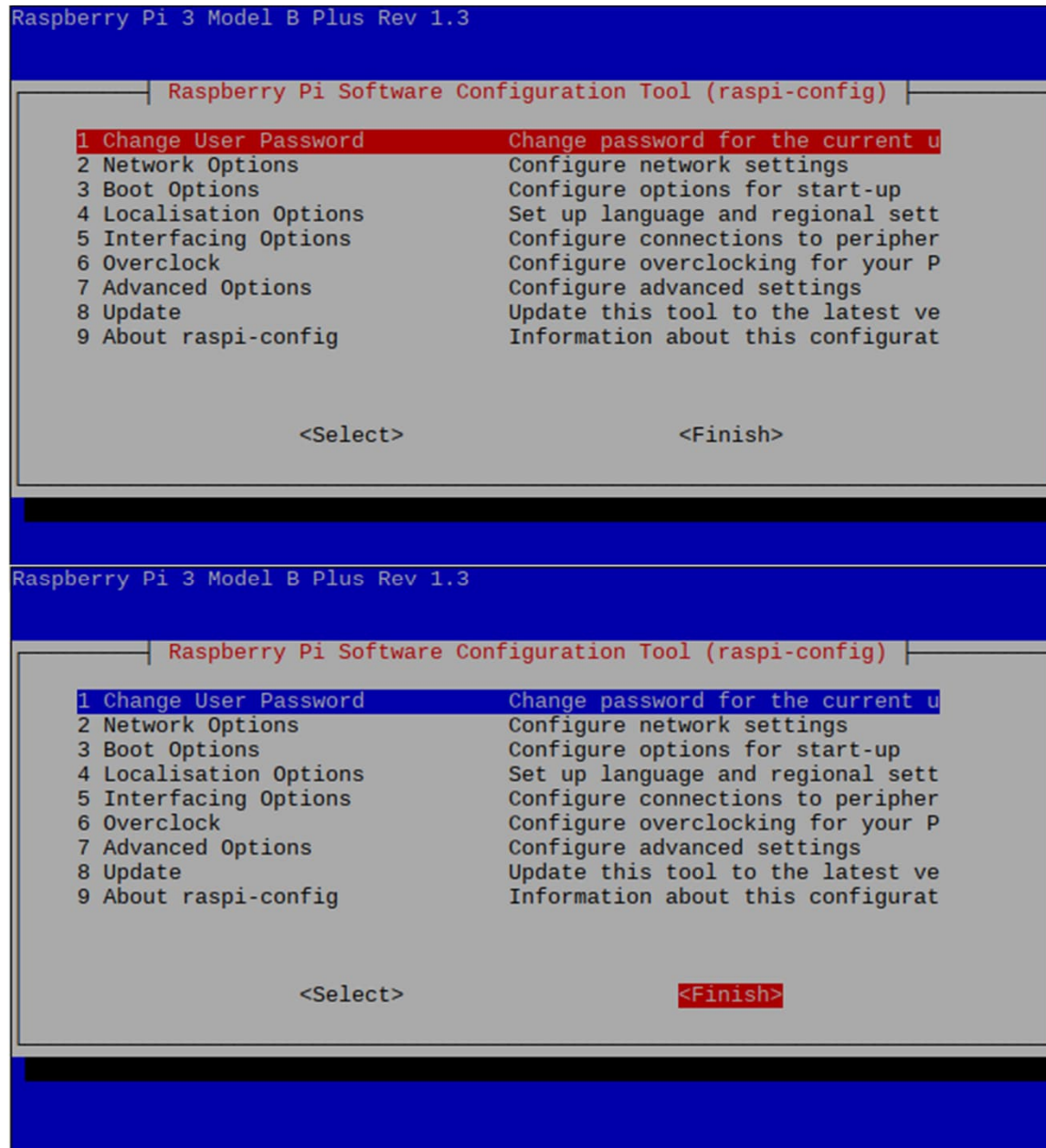


Select P5 I2C



Select <Yes>

Select <Ok>



Select <Finish> with the TAB.



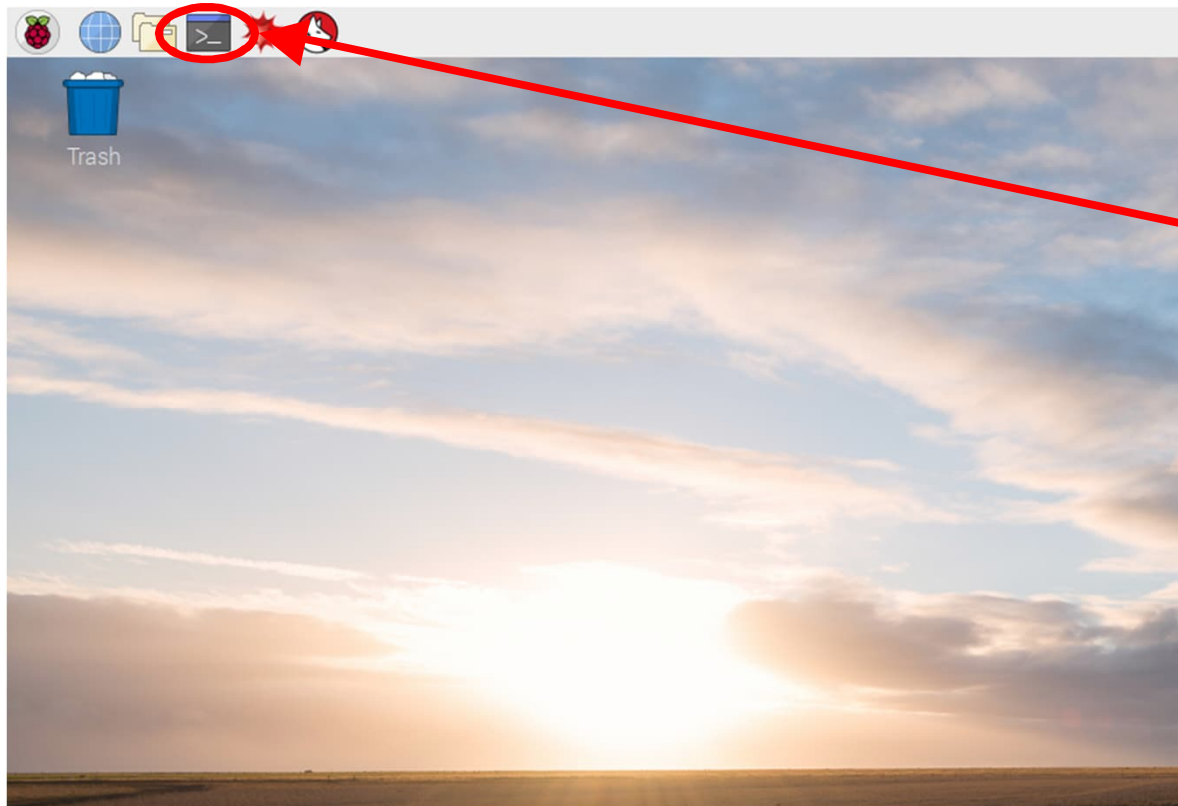
Type "sudo reboot" and press Enter.

```
pi@raspberrypi:~ $  
pi@raspberrypi:~ $ sudo raspi-config  
pi@raspberrypi:~ $  
pi@raspberrypi:~ $ sudo reboot
```

Setting completed.

## 2. INSTALL THE I2C LIBRARY FOR THE PYTHON

Library Installation procedure



Open the terminal.

File Edit Tabs Help

```
pi@raspberrypi:~ $ sudo apt update
```

Update system package list

Type "sudo apt update" and press Enter.

File Edit Tabs Help

```
pi@raspberrypi:~ $ sudo apt upgrade
```

Upgrade all installed packages to the latest version

Type "sudo apt upgrade" and press Enter.

File Edit Tabs Help

```
pi@raspberrypi:~ $ sudo apt clean
```

Clear package cache

Type "sudo apt clean" and press Enter.

```
File Edit Tabs Help
pi@raspberrypi:~ $ sudo apt install python3-smbus
```

Type "sudo apt install python3-smbus" and press Enter.

```
File Edit Tabs Help
pi@raspberrypi:~ $ sudo apt install i2c-tools
```

Type "sudo apt install i2c-tools" and press Enter.

```
File Edit Tabs Help
pi@raspberrypi:~ $ sudo i2cdetect -y 1
 0  1  2  3  4  5  6  7  8  9  a  b  c  d  e  f
00:  --  --  --  --  --  --  --  --  --  --  --  --  --  --  --
10:  --  --  --  --  --  --  --  --  --  --  --  --  --  --  --
20:  --  --  --  --  --  --  --  --  --  --  --  --  --  --  --
30:  --  --  --  --  --  --  --  --  --  --  --  --  --  --  --
40:  --  --  --  --  --  --  --  --  --  --  --  --  --  --  --
50:  --  --  --  --  --  --  --  --  --  --  --  --  --  --  --
60:  --  --  --  --  --  --  --  --  --  --  --  --  --  --  --
70:  --  --  --  --  --  --  --  --  --  --  --  --  --  --  --
pi@raspberrypi:~ $
```

Type "sudo i2cdetect -y 1" and press Enter.

If the secondary device is connected to the I2C bus, the secondary bus address will be displayed.

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## 2. APPENDIX

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Author: Dr. KAGA, Yoshitaka

Publishing company: Neo Career Promote CO., LTD.

Address: 5-1-11-202, Okusawa Setagaya-ku TOKYO 158-0083 JAPAN

Home Page: <https://www.ncp-8.com/>

Contact E-mail: [info@ncp-8.com](mailto:info@ncp-8.com)