

# Environment Setup

## Environment Setup

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Using our system image does not require installing or updating any software, just run the camera startup command!

## References

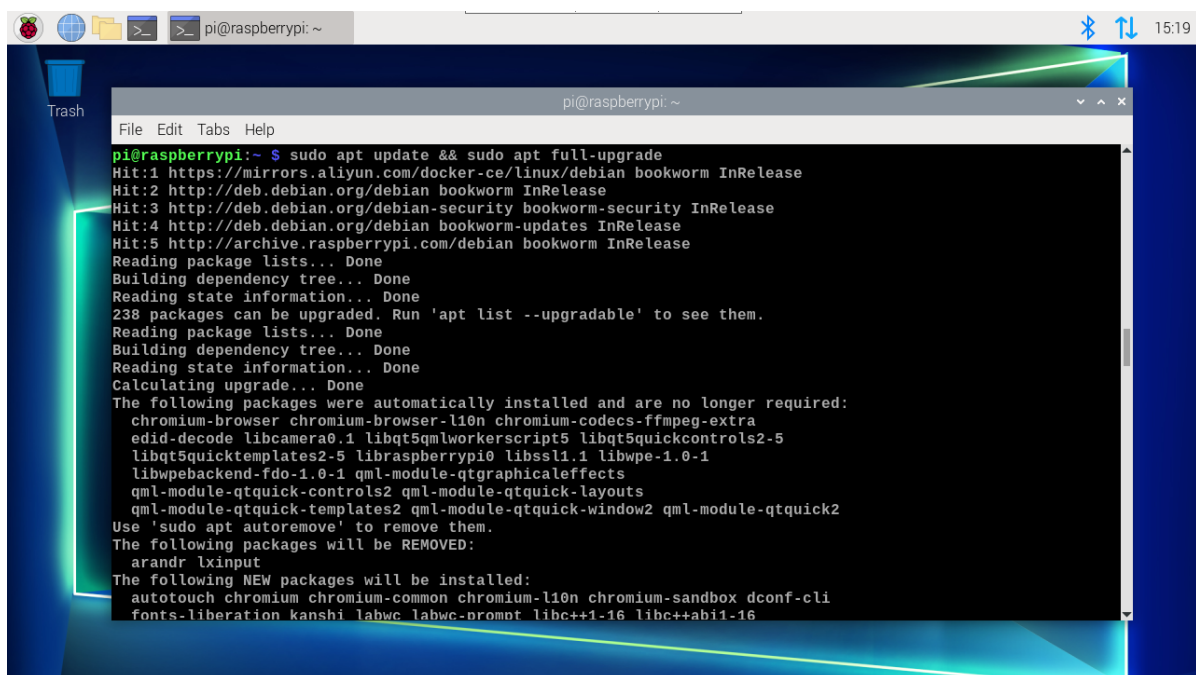
Official website of Raspberry Pi AI Camera

<https://www.raspberrypi.com/documentation/accessories/ai-camera.html>

## Update system environment

Make sure Raspberry Pi runs the latest software:

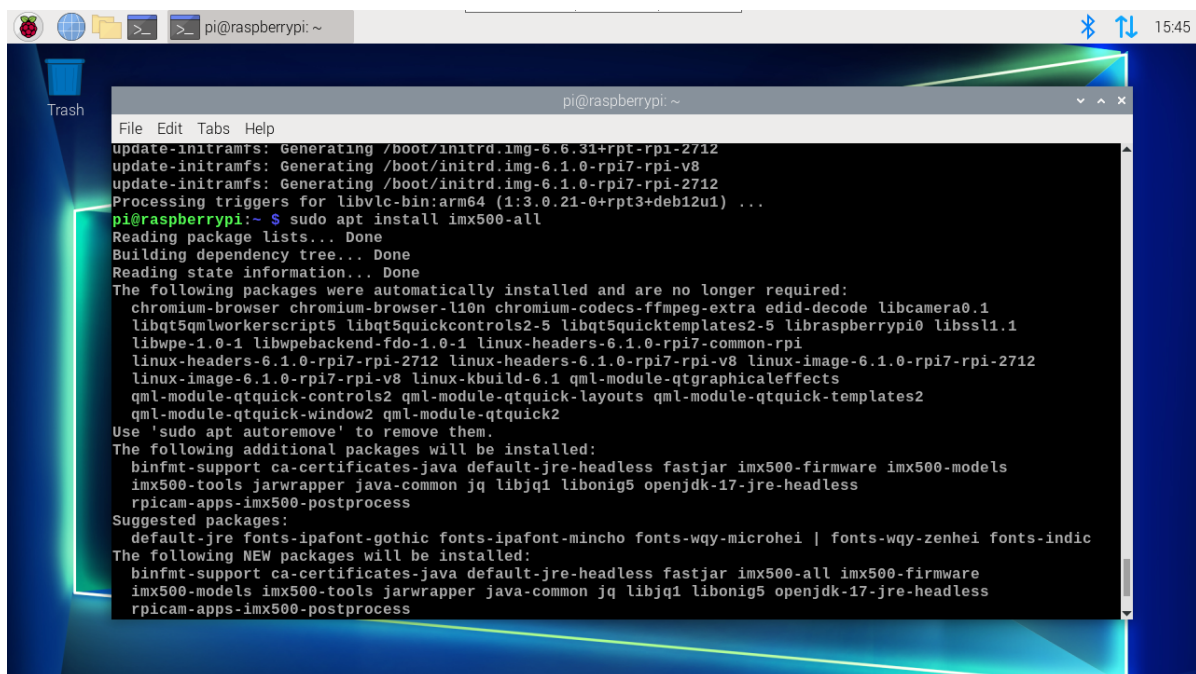
```
sudo apt update && sudo apt full-upgrade
```

A screenshot of a terminal window on a Raspberry Pi. The terminal shows the output of the command 'sudo apt update && sudo apt full-upgrade'. The output includes several 'Hit' messages for various repositories, followed by 'Reading package lists... Done', 'Building dependency tree... Done', and 'Reading state information... Done'. It then states '238 packages can be upgraded. Run 'apt list --upgradable' to see them.' and lists several packages that will be removed and new packages that will be installed. The terminal window is titled 'pi@raspberrypi: ~' and has a menu bar with 'File', 'Edit', 'Tabs', and 'Help'. The background of the terminal window shows a desktop environment with a trash icon and a taskbar at the bottom.

## Install IMX500 firmware

Firmware is required to start the camera:

```
sudo apt install imx500-all
```



## Restart the system

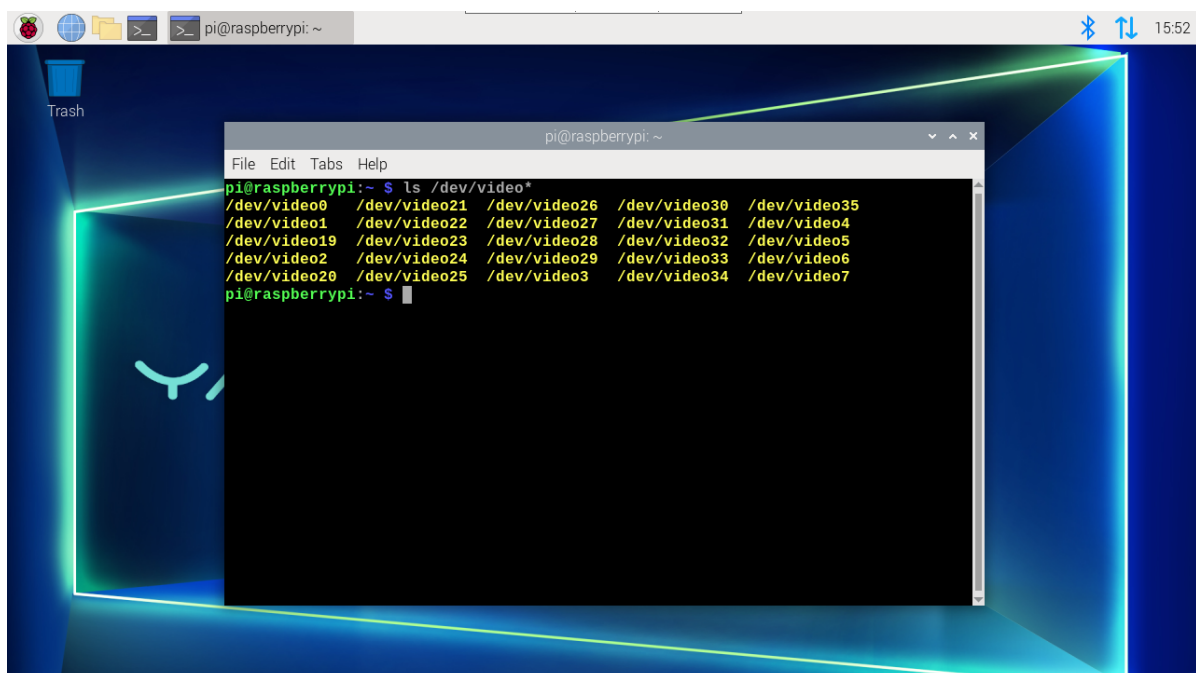
Restart the system, and the previous operations will take effect:

```
sudo reboot
```

## Camera preview

- Check the camera device number

```
ls /dev/video*
```



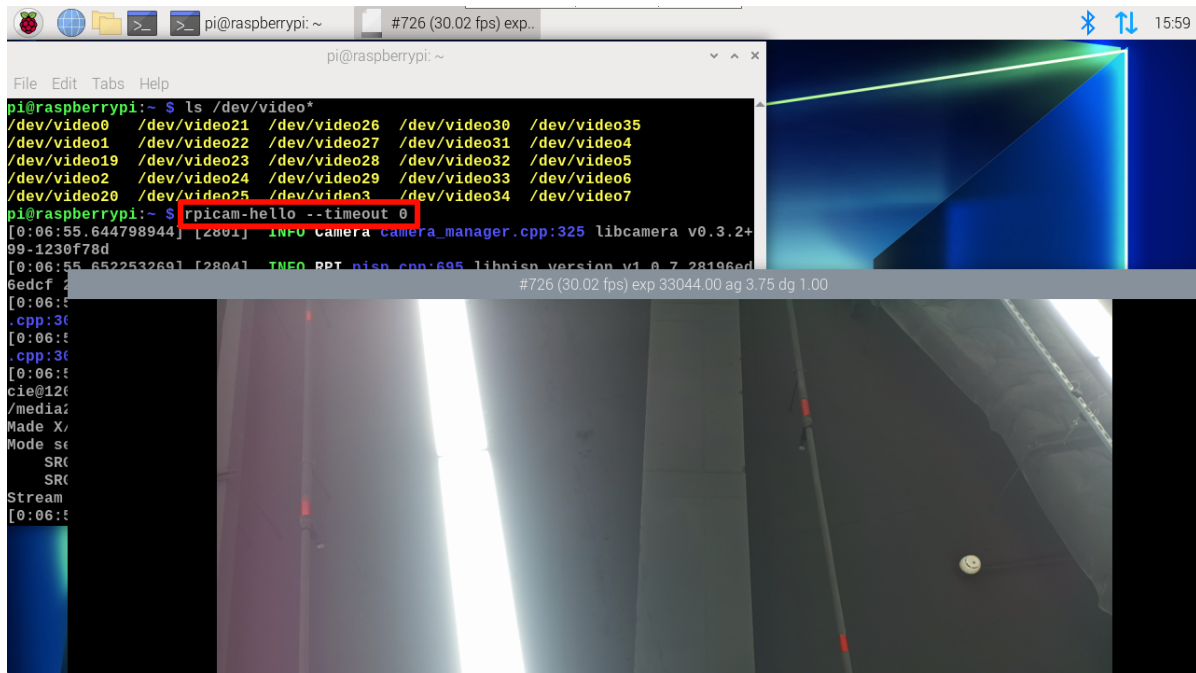
- Check the camera screen

Preview the screen for 5 seconds:

```
rpicam-hello
```

Continue to preview the screen:

```
rpicam-hello --timeout 0
```



Press Ctrl+c in the terminal or click the x in the upper right corner of the screen to close the program.