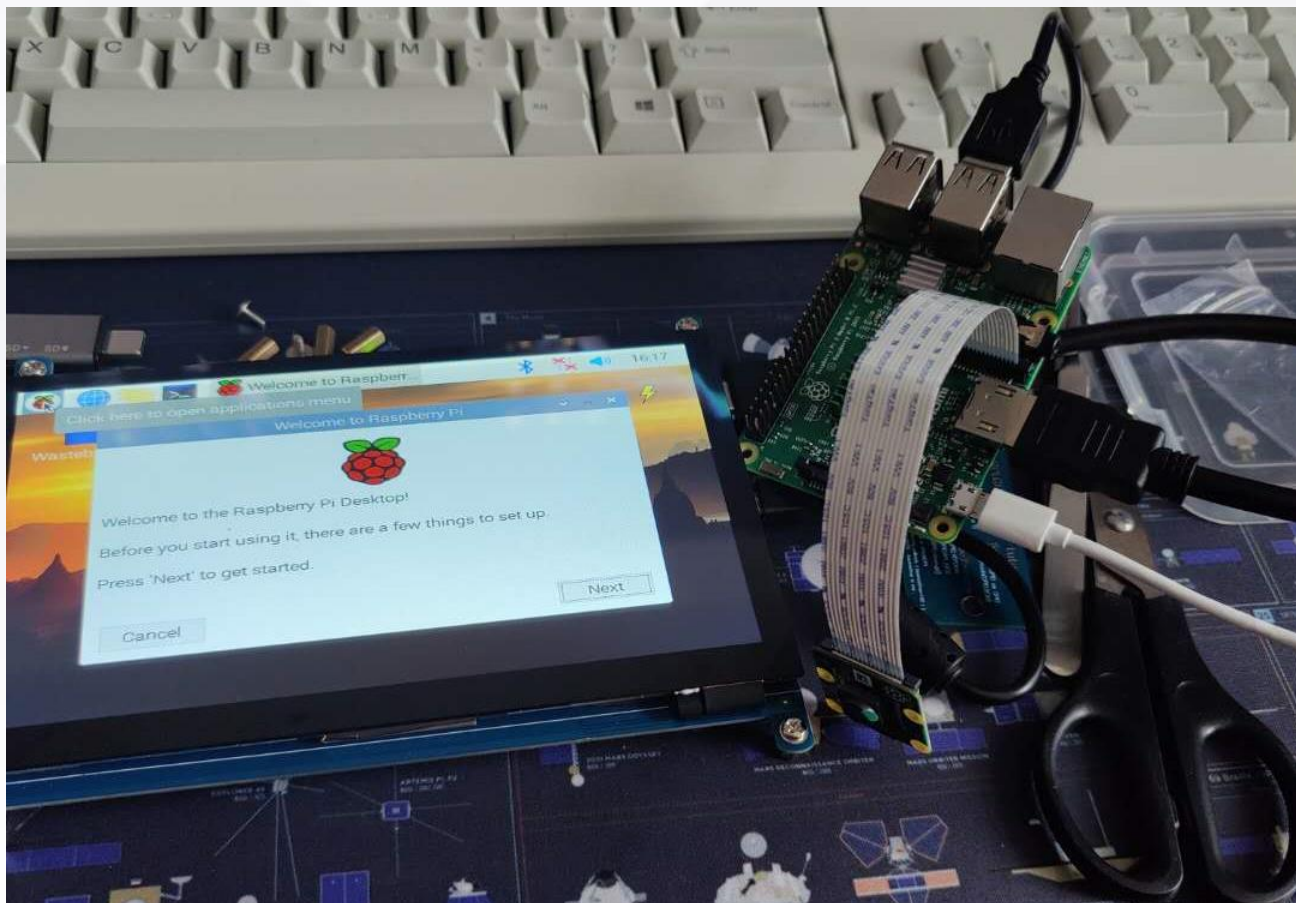# Assessment 3
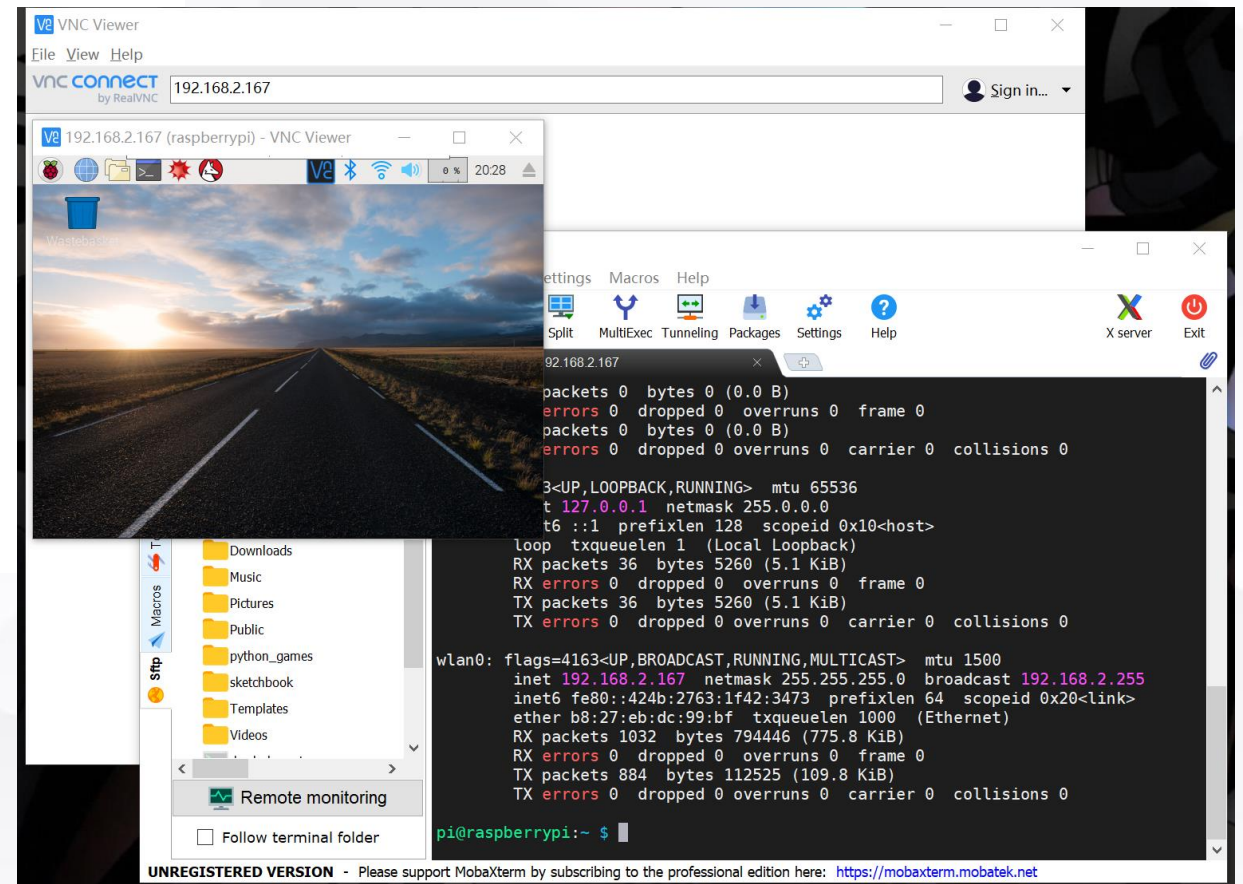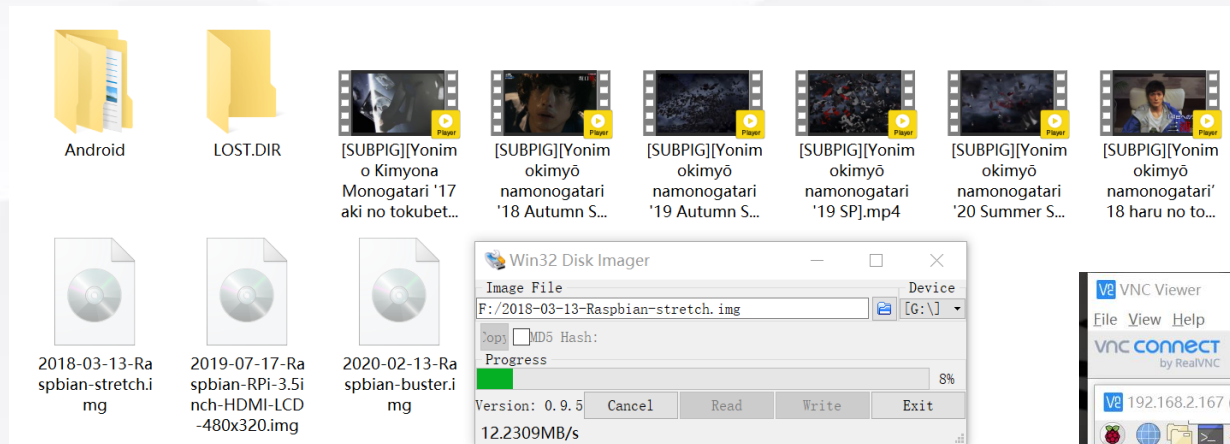
ADAD3402 Interactive Generative Visualisations
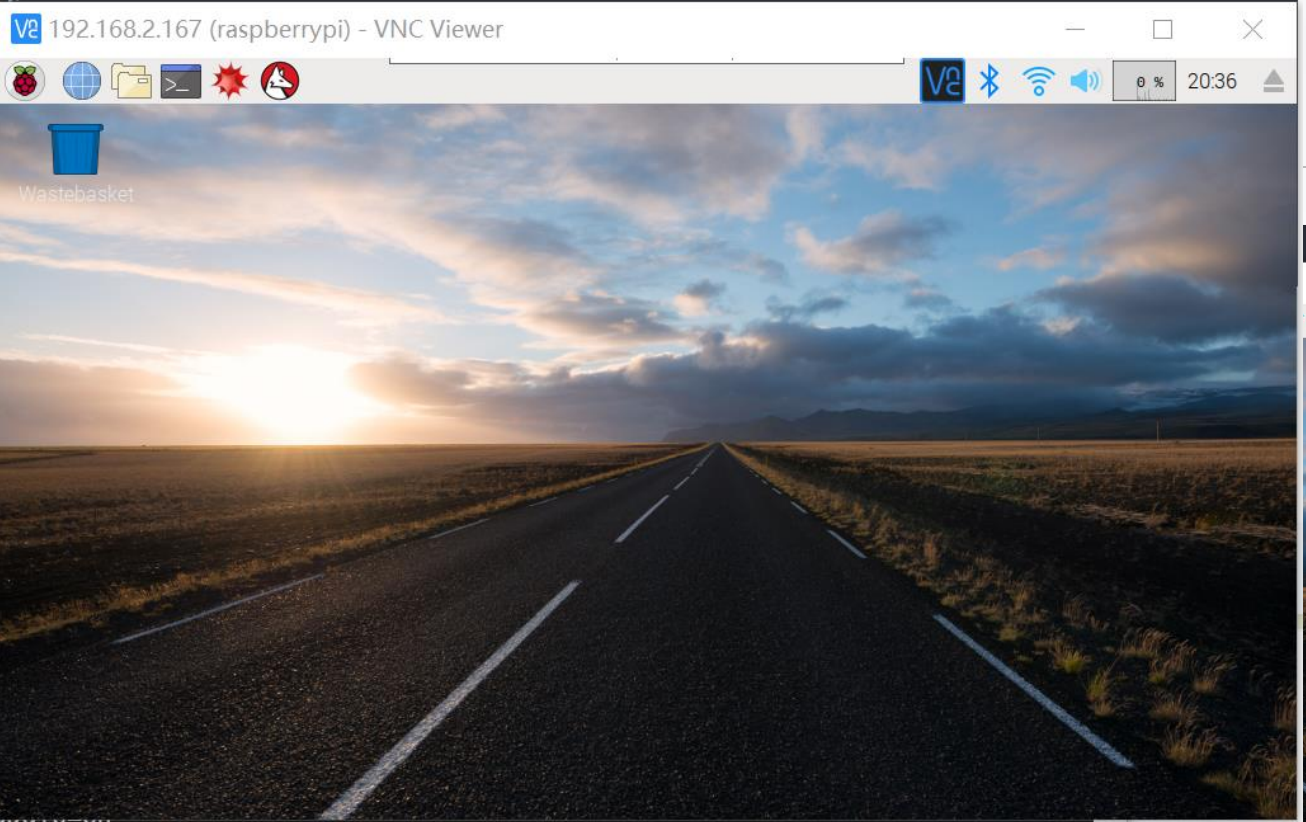
■ z5158177 | ■ Yicheng PAN

```
1  hdmi_cvt=<width> <height> <framerate> <aspect> <margins> <interlace> <rb>
2  width       width in pixels
3  height      height in pixe
4  framerate   framerate in H
5  aspect      aspect ratio 1
6  margins     0=margins disa
7  interlace   0=progressive
8  rb          0=normal, 1=re
```

192.168.2.167 (raspberrypi) - VNC Viewer

Wastebasket

192.168.2.167

Terminal   Sessions   View   X server   Tools   Games

Session   Servers   Tools   Games   Sessions   View

Quick connect...

GNU na

/home/pi/

Name
..
.cache
.config
.gnupg
.local
.processing
.themes
.vnc
Desktop
Documents
Downloads

```
#dtoverl
# Additi
# Enable
dtparam=audio-on

gpu_mem_256=64
gpu_mem_512=128
gpu_mem_1024=256
start_x=1
gpu_mem=128

#
max_usb_current=1
hdmi_group=2
hdmi_mode=1
hdmi_mode=87
hdmi_drive=1
```

^G Get Help   ^O Write Out   ^W Where Is   ^K Cut Text   ^J Justify
^X Exit   ^R Read File   ^\ Replace   ^U Uncut Text ^T To Spell

Remote monitoring

Follow terminal folder

Wastebasket

Documents

12-15

12-15

评论

评论

博客 ◎ 1671

一下自己买...

博客 ◎ 1671

一下自己买...

博客 ◎ 1009

按Ctrl+O保...

Raspberry Pi

Terminal   Sessions   View   X server   Tools   Games   Settings   Macros   Help

Session | Servers | Tools | Games | Sessions | View | Split | MultiExec | Tunneling | Packages | Settings | Help   X server | Exit

Quick connect...

/etc/

Name
..
.java
alternatives
apache2
apparmor.d
apt
avahi
bash_completion.d
binfmt.d
bluetooth
ca-certificates
calendar
chromium-browser
cifs-utils

Remote monitoring

☐ Follow terminal folder

3. Raspberry Pi

```
f buffers are being dropped.
Additional debug info:
gstbasesink.c(2834): gst_base_sink_is_too_late (): /GstPipeline:pipeline0/GstXI
mageSink:ximagesink0:
There may be a timestamping problem, or this computer is too slow.
WARNING: from element /GstPipeline:pipeline0/GstXImageSink:ximagesink0: A lot o
f buffers are being dropped.
Additional debug info:
gstbasesink.c(2834): gst_base_sink_i                    stXI
mageSink:ximagesink0:
There may be a timestamping problem,
ERROR: from element /GstPipeline:pip                    wi
ndow was closed
Additional debug info:
ximagesink.c(700): gst_x_image_sink_                    e0/G
stXImageSink:ximagesink0
Execution ended after 0:00:31.540675
Setting pipeline to PAUSED ...
Setting pipeline to READY ...
Setting pipeline to NULL ...
Freeing pipeline ...
pi@raspberrypi:~ $ gst-launch-1.0 v4l2src device=/dev/video0 ! ximagesink
Setting pipeline to PAUSED ...
Pipeline is live and does not need PREROLL ...
Setting pipeline to PLAYING ...
New clock: GstSystemClock
```

gst-launch-1.0
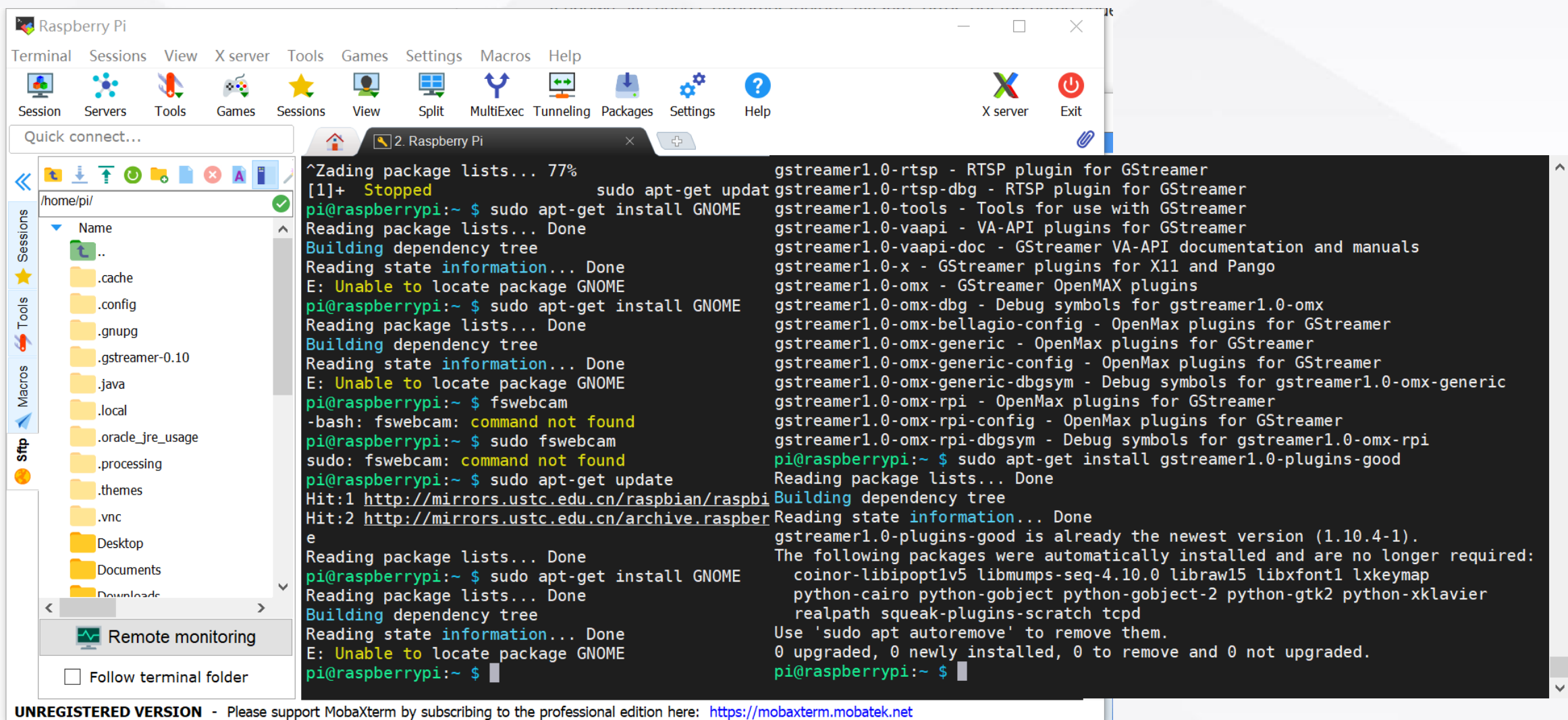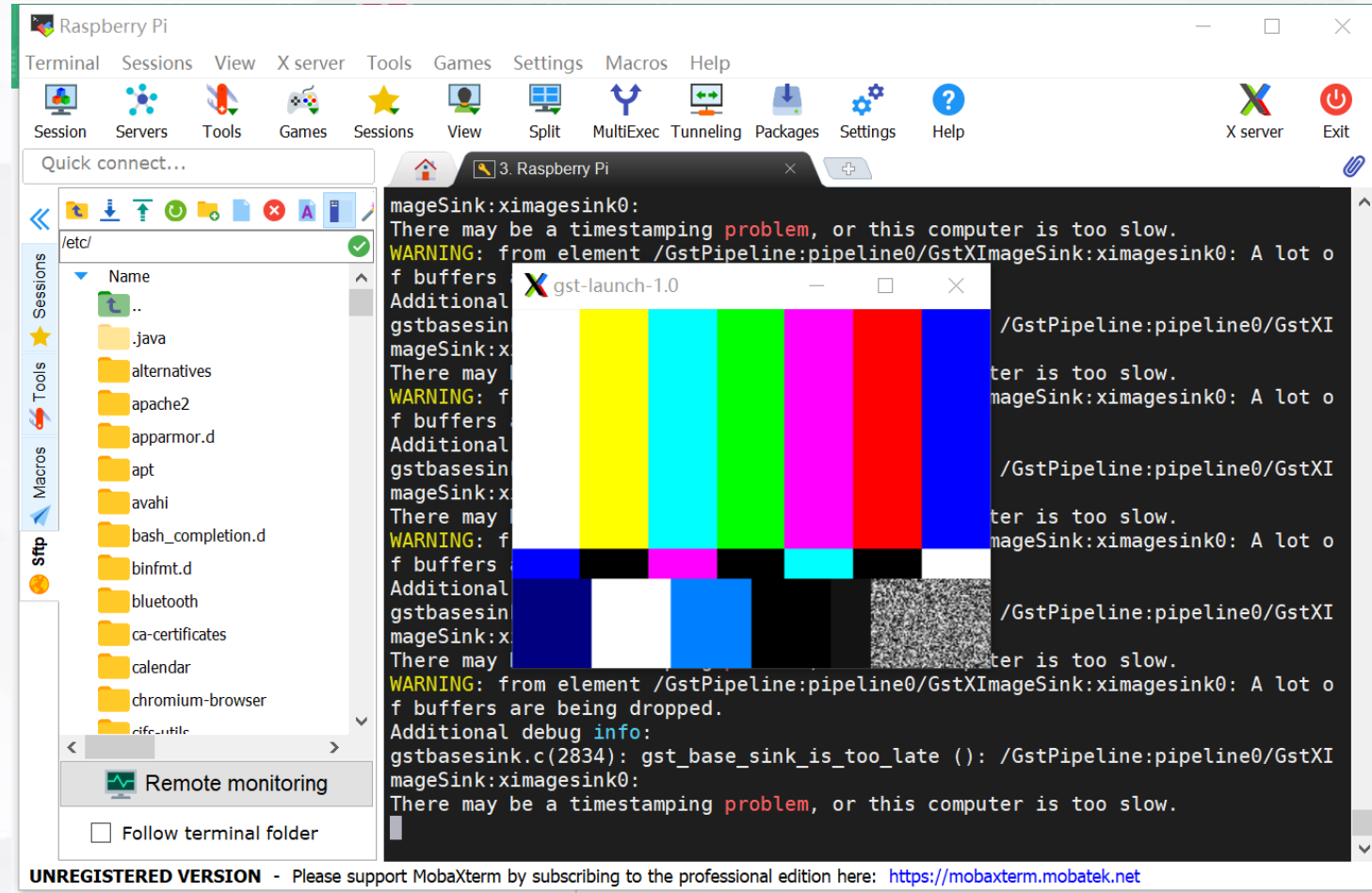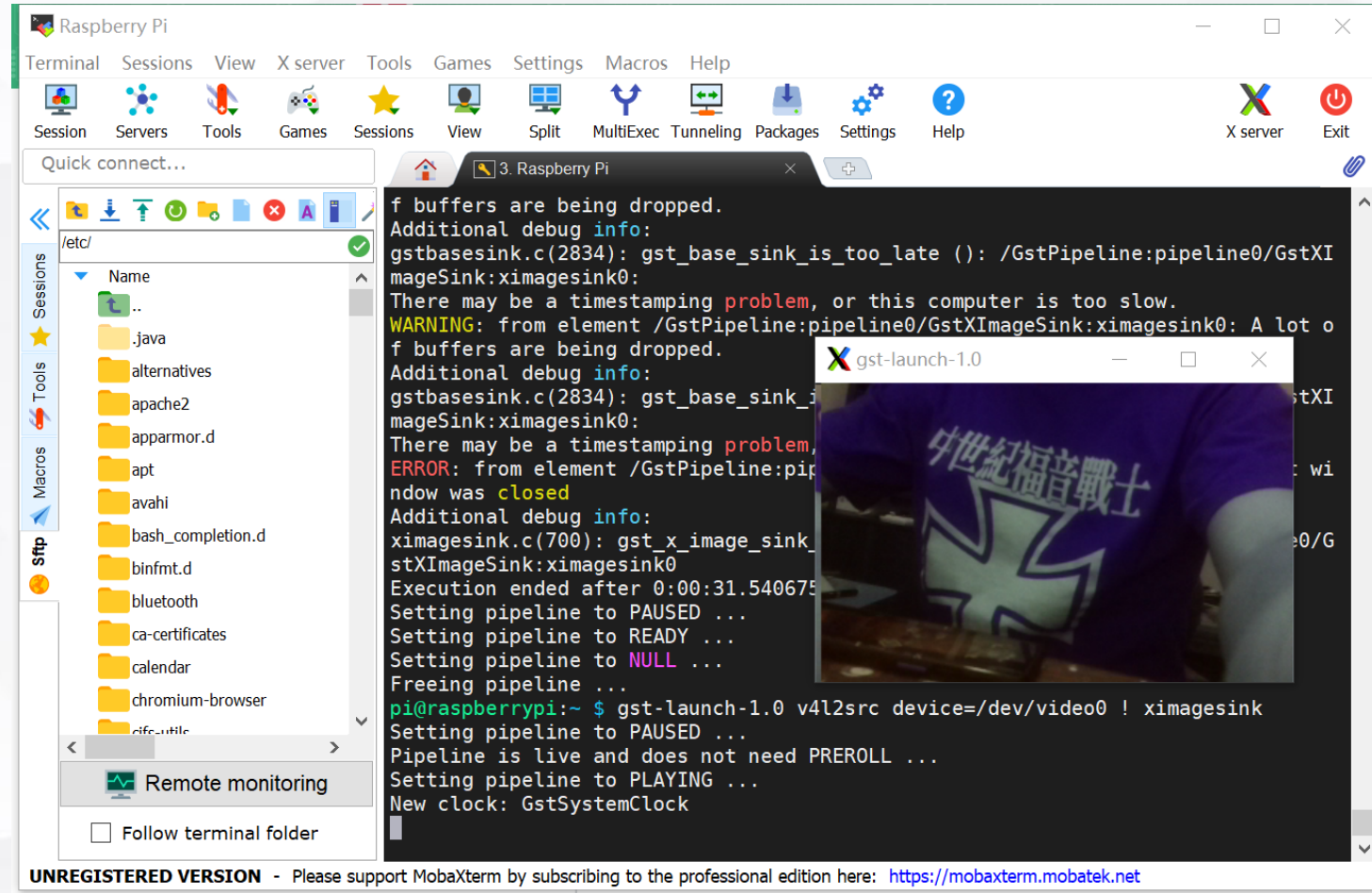
Home
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Libraries
Technical
Social
Imprint

```
import gohai.glvideo.*;

GLCapture video;

void setup() {
  size(320, 240, P2D);

  // Get the list of ca
  String[] devices = GL
  println("Devices:");
  printArray(devices);

  // Get the resolution
  if (0 < devices.lengt
    String[] configs =
    println("Configs:"
    printArray(configs)
  }

  // this will use the
  video = new GLCapture

  // you could be more
  //video = new GLCaptu
  //video = new GLCaptu
  //video = new GLCapture(this, de

  video.start();
}

void draw() {
  background(0);
  // If the camera is sending new
  if (video.available()) {
    video.read();
  }
  // Copy pixels into a PImage obj
  image(video, 0, 0, width, height
```

copy

There are a few important parts of

192.168.2.167 (raspberrypi) - VNC Viewer

sketch_200813a | Processing 3.4

File Edit Sketch Debug Tools Help

Java ▼

Java ▼

Add Examples

sketch_200813a

Libraries
- DXF Export
- Hardware I/O
- Network
- PDF Export
- Serial
- Video
  - Capture
    - AsciiVideo
    - BackgroundSu
    - BrightnessThre
    - BrightnessTrac
    - ColorSorting
    - FrameDifferen

Java ▼

Help   X server   Exit

```
Final caps: video/x-raw(memory:GLMemory), width=(int)320, height=(int)200,
framerate=(fraction)100/1, format=(string)RGBA, pixel-aspect-ratio=(fraction)1/1,
interlace-mode=(string)progressive, texture-target=(string)2D
```

Console   Errors

.2 ?
networking tools)

..255)

ay is forwarded through SSH)
y set on remote server)

▸ For more info, ctrl+click on help or visit our website

modes
MouseParticle
sketch_200813a
sketch_200813B
sketch_200814a
sketch_200814b
sketch_200814c
templates
tools

```
Linux raspberrypi 5.4.51-v7+ #1327 SMP Thu Jul 23 10:58:46 BST 2020 armv7l

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Thu Aug 13 19:09:17 2020 from 192.168.2.179

SSH is enabled and the default password for the 'pi' user has not been changed.
This is a security risk - please login as the 'pi' user and type 'passwd' to se
t a new password.

pi@raspberrypi:~ $
```

Remote monitoring
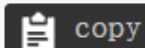
☐ Follow terminal folder

Macros

Sftp

Video library: Capture

If you're receiving the error `IllegalArgumentException: No such Gstreamer factory: v4l2src` with the (regular) Video library, try installing the necessary packages by executing `sudo aptitude install gstreamer0.10-plugins-good` in a terminal.

Alternatively, the GL Video library also contains some (very limited) functionality for using capture hardware. See this example for details.
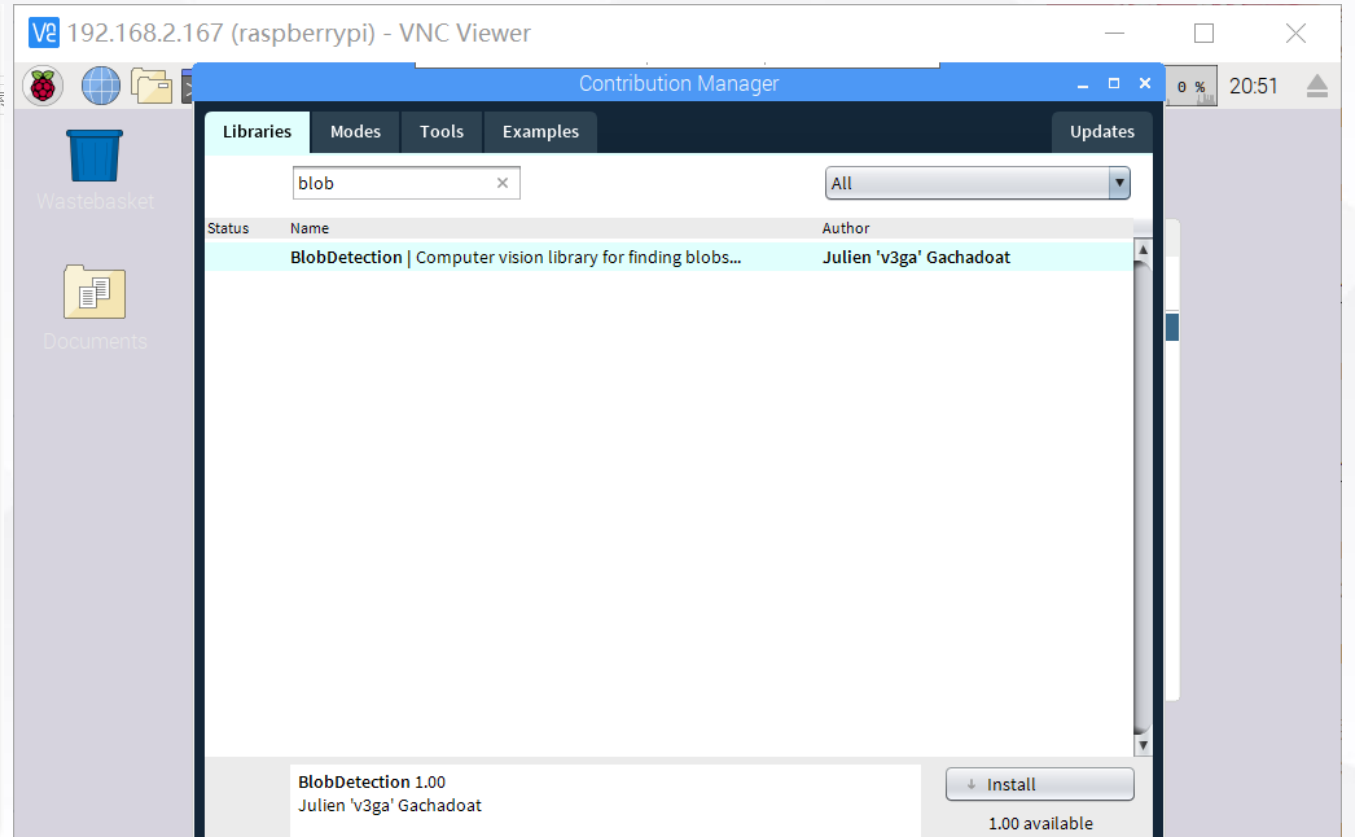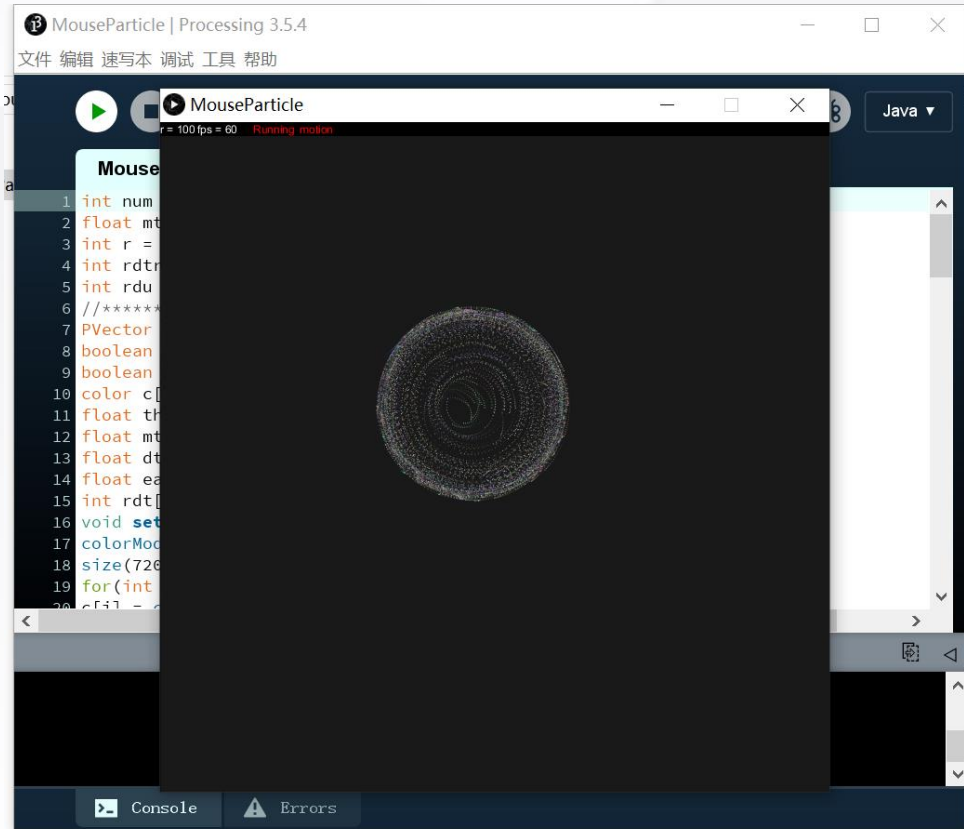
If you want to use the Raspberry Pi camera with the GL Video library, add the following line to your `/etc/modules` file and reboot:
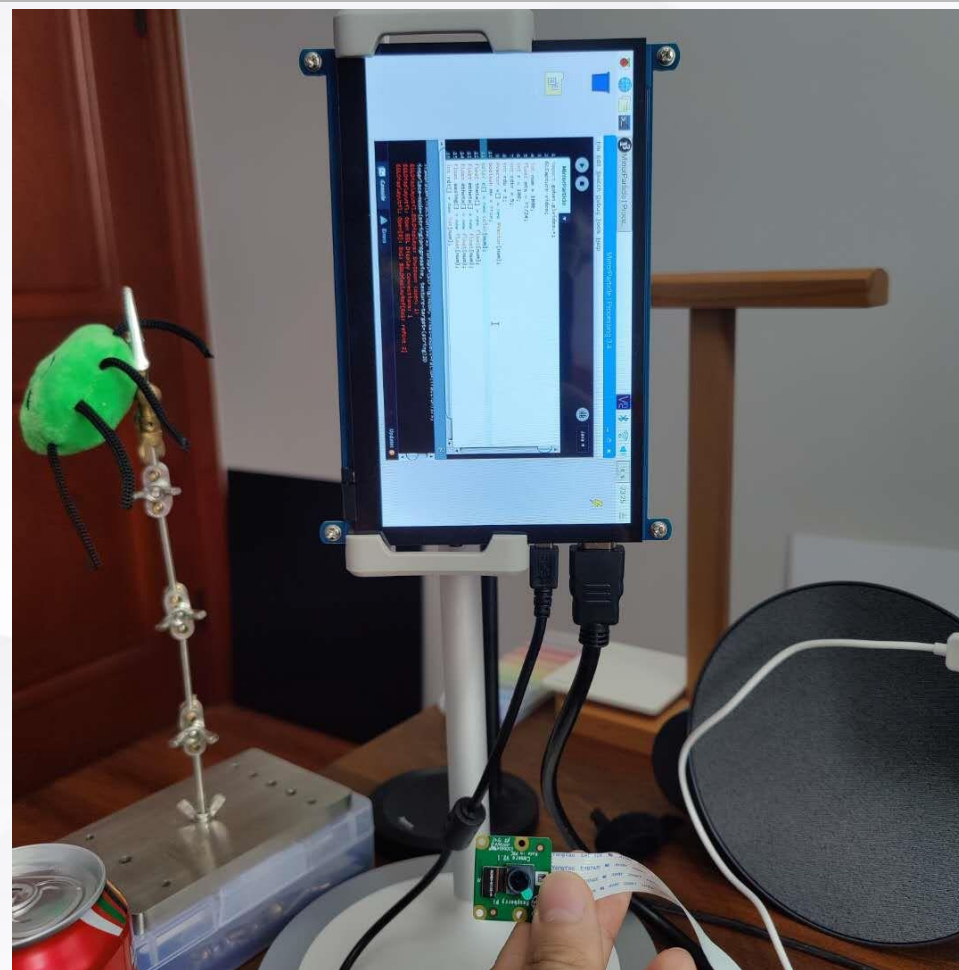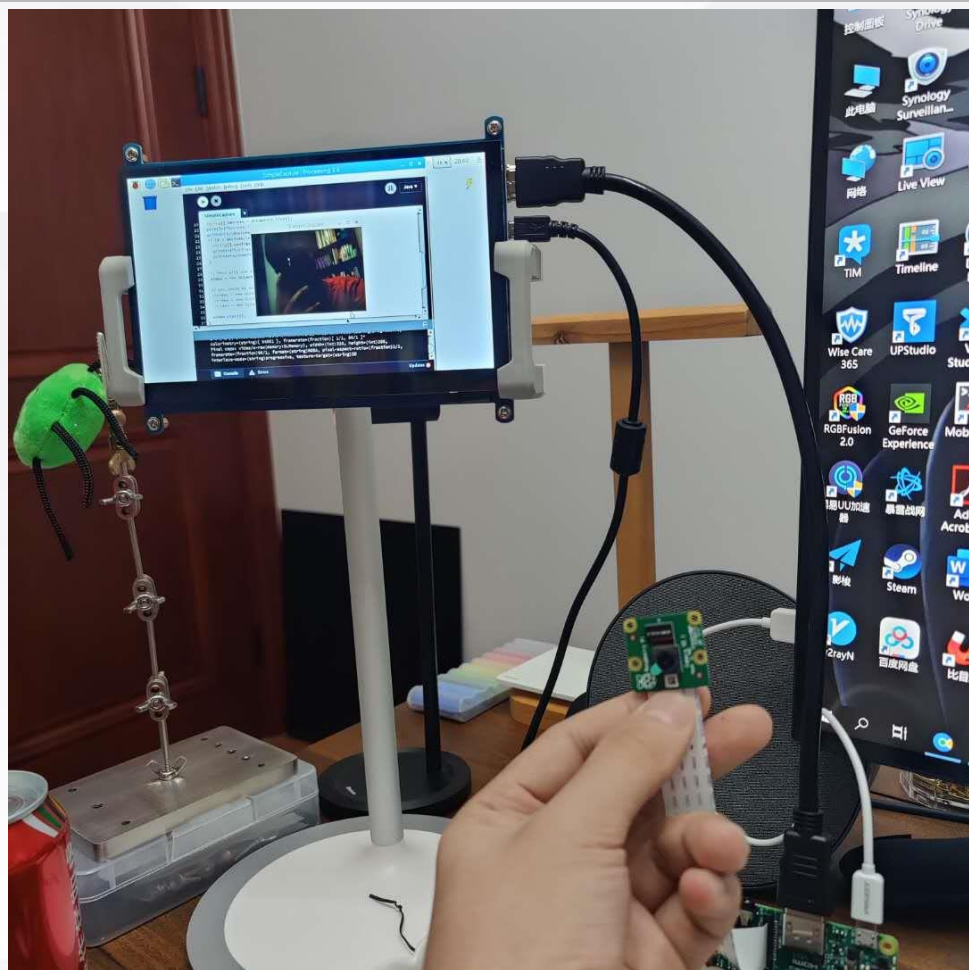
```
bcm2835_v4l2                                                    copy
```
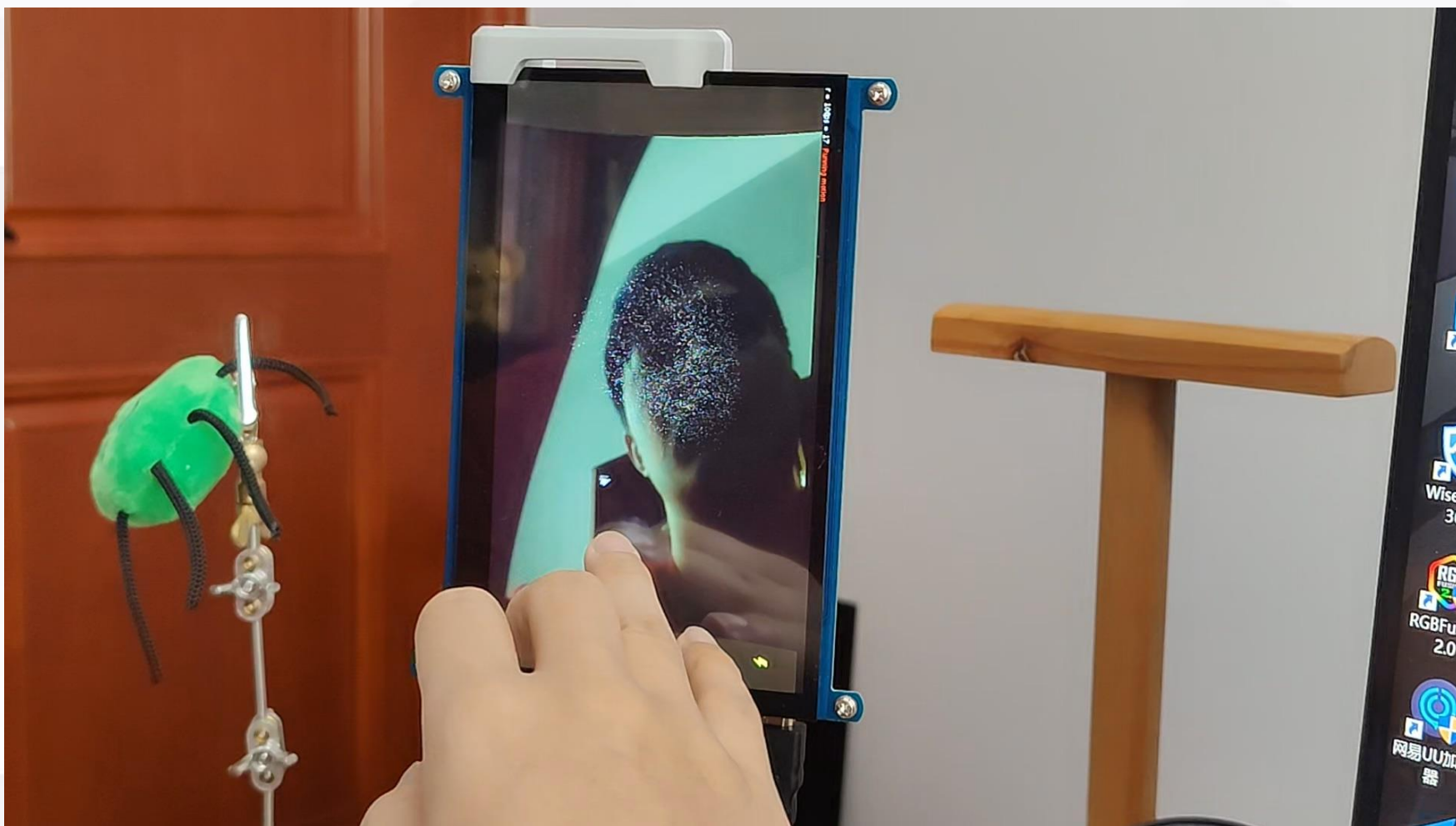
(Note this is a lowercase `L` not a number one.) After the reboot your camera should show up as `/dev/video0`.

THANKS

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