

# Tinker Board

IoT를 위한 최선의 엣지 단말기



MAKER SPACE  
**G·CAMP**

# Contents

- Wfi
- Bluetooth
- Git
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# Debian Tinker 기본 설정(Wi-Fi)



1. Tinker Board 에서 Wi-Fi 모듈과 안테나 연결  
(main만 연결해도 지장 없음)

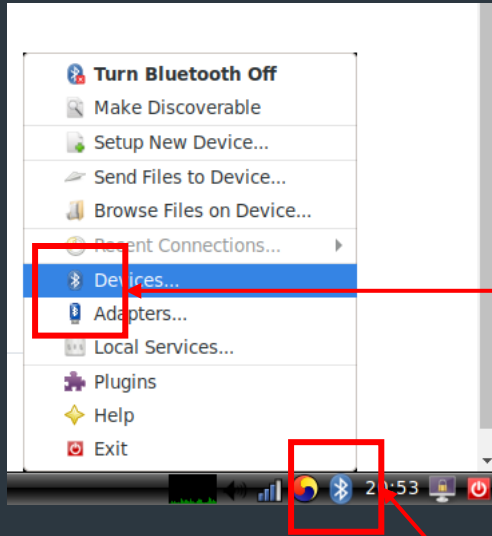
# Debian Tinker 기본 설정(Wi-Fi)



3. 자신이 원하는 Wi-Fi 선택 및 암호 입력 후 연결 상태 확인

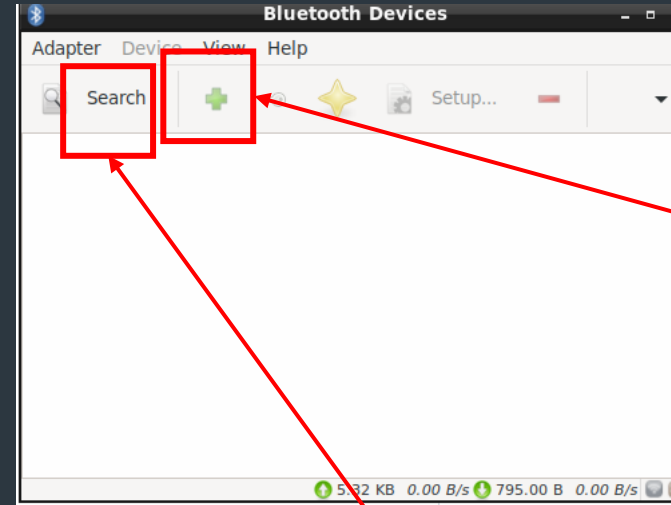
2. Wi-Fi 아이콘 더블 클릭  
(이더넷 연결 시 별도의 설정 필요 없음)

# Debian Tinker 기본 설정(blueetooth)



2. Device 아이콘 더블 클릭

1. bluetooth 아이콘 더블 클릭



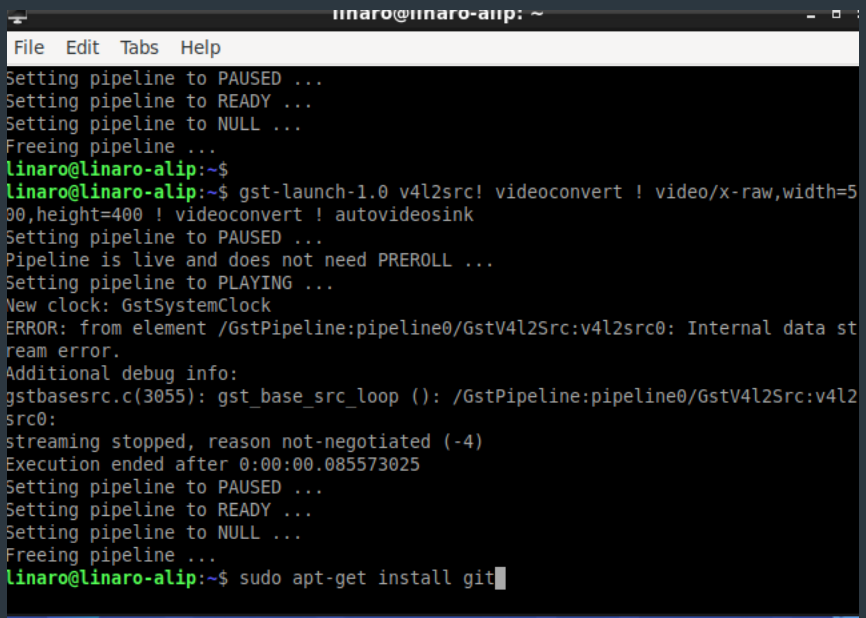
4. +아이콘 클릭 후 자신의 기기와 pairing

3. Search 아이콘 더블 클릭 후 자신이 찾는 디바이스 찾기

# Debian Tinker 기본 설정(Git)

- GPIO를 사용 하고 GIT에서 Clone을 가져오기 위해 Git 설치

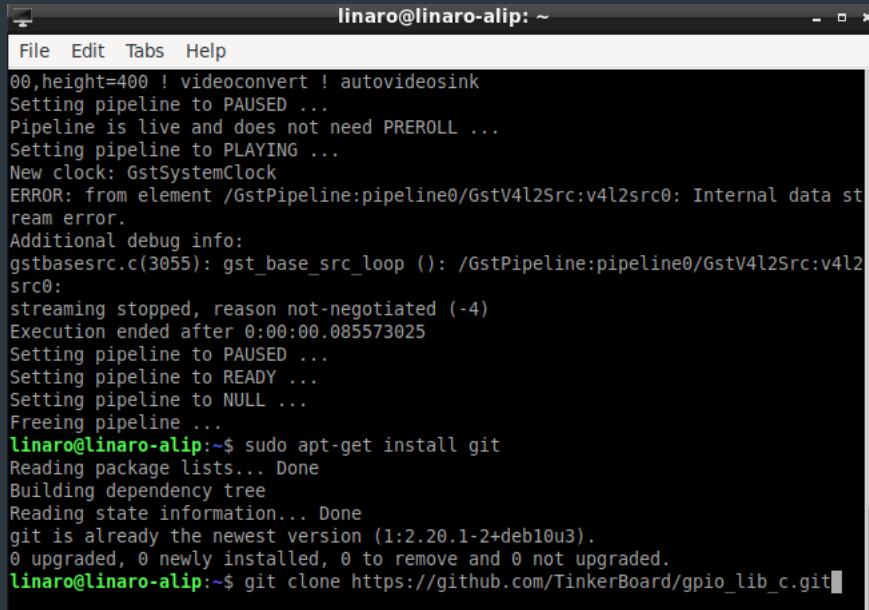
1. 하단 Bar에서 System Tools - LXTerminal 클릭
2. Sudo apt-get install git 입력 후 엔터



```
linaro@linaro-alip: ~  
File Edit Tabs Help  
Setting pipeline to PAUSED ...  
Setting pipeline to READY ...  
Setting pipeline to NULL ...  
Freeing pipeline ...  
linaro@linaro-alip:~$  
linaro@linaro-alip:~$ gst-launch-1.0 v4l2src! videoconvert ! video/x-raw,width=5  
90,height=400 ! videoconvert ! autovideosink  
Setting pipeline to PAUSED ...  
Pipeline is live and does not need PREROLL ...  
Setting pipeline to PLAYING ...  
New clock: GstSystemClock  
ERROR: from element /GstPipeline:pipeline0/GstV4l2Src:v4l2src0: Internal data st  
ream error.  
Additional debug info:  
gstbasesrc.c(3055): gst_base_src_loop (): /GstPipeline:pipeline0/GstV4l2Src:v4l2  
src0:  
streaming stopped, reason not-negotiated (-4)  
Execution ended after 0:00:00.085573025  
Setting pipeline to PAUSED ...  
Setting pipeline to READY ...  
Setting pipeline to NULL ...  
Freeing pipeline ...  
linaro@linaro-alip:~$ sudo apt-get install git
```

# Debian Tinker 기본 설정(Git Clone)

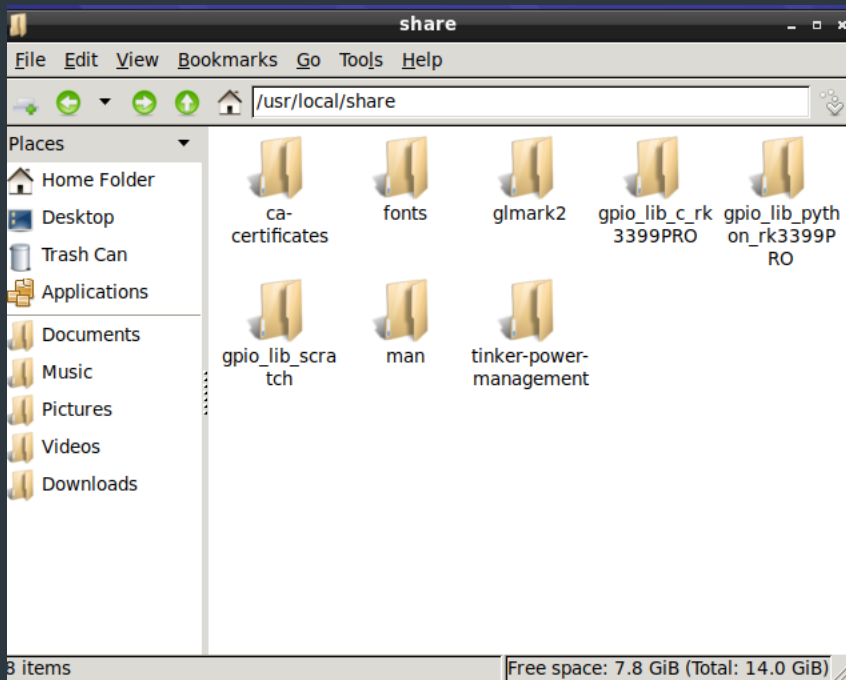
1. Sudo apt-get install git 로 Git 설치 후 진행 가능
2. git clone [https://github.com/TinkerBoard/gpio\\_lib\\_python.git](https://github.com/TinkerBoard/gpio_lib_python.git) 입력 후 엔터



```
linaro@linaro-alip: ~  
File Edit Tabs Help  
00,height=400 ! videoconvert ! autovideosink  
Setting pipeline to PAUSED ...  
Pipeline is live and does not need PREROLL ...  
Setting pipeline to PLAYING ...  
New clock: GstSystemClock  
ERROR: from element /GstPipeline:pipeline0/GstV4l2Src:v4l2src0: Internal data stream error.  
Additional debug info:  
gstbasesrc.c(3055): gst_base_src_loop (): /GstPipeline:pipeline0/GstV4l2Src:v4l2src0:  
streaming stopped, reason not-negotiated (-4)  
Execution ended after 0:00:00.085573025  
Setting pipeline to PAUSED ...  
Setting pipeline to READY ...  
Setting pipeline to NULL ...  
Freeing pipeline ...  
linaro@linaro-alip:~$ sudo apt-get install git  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
git is already the newest version (1:2.20.1-2+deb10u3).  
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.  
linaro@linaro-alip:~$ git clone https://github.com/TinkerBoard/gpio_lib_c.git
```

# Debian Tinker 기본 설정(Git Clone)

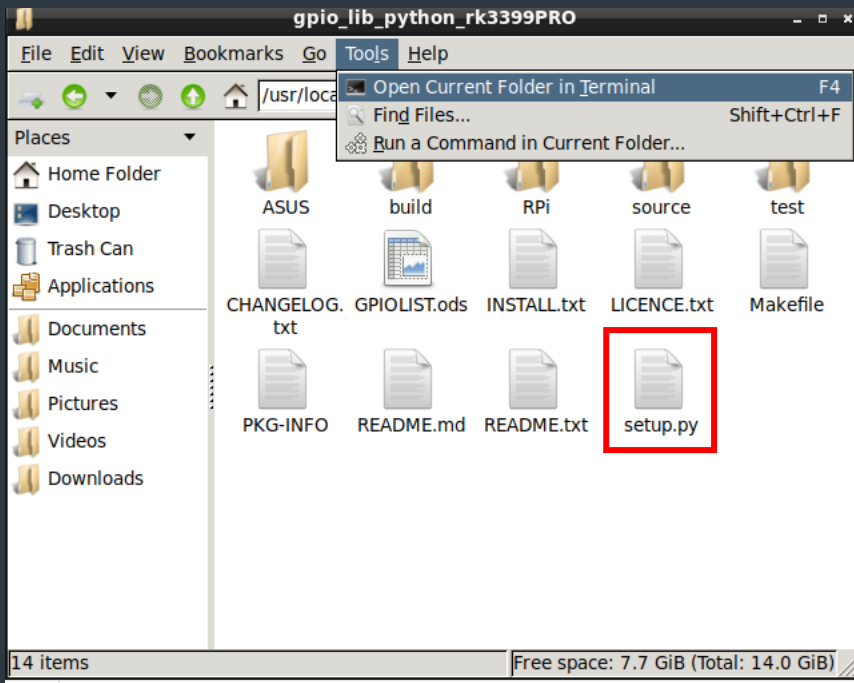
3. 정상적으로 설치가 완료되면 /usr/local/share 경로에 아래 이미지와 같은 하위 폴더가 생성됨





# Debian Tinker 기본 설정(Git Clone python build)

1. 경로 지정의 편의를 위해 /usr/local/share/gpio\_lib\_python\_rk3399pro 폴더 진입
2. Setup.py 파일 확인
3. Tools-Open Current Folder in Terminal 클릭



# Debian Tinker 기본 설정(Git Clone python build)

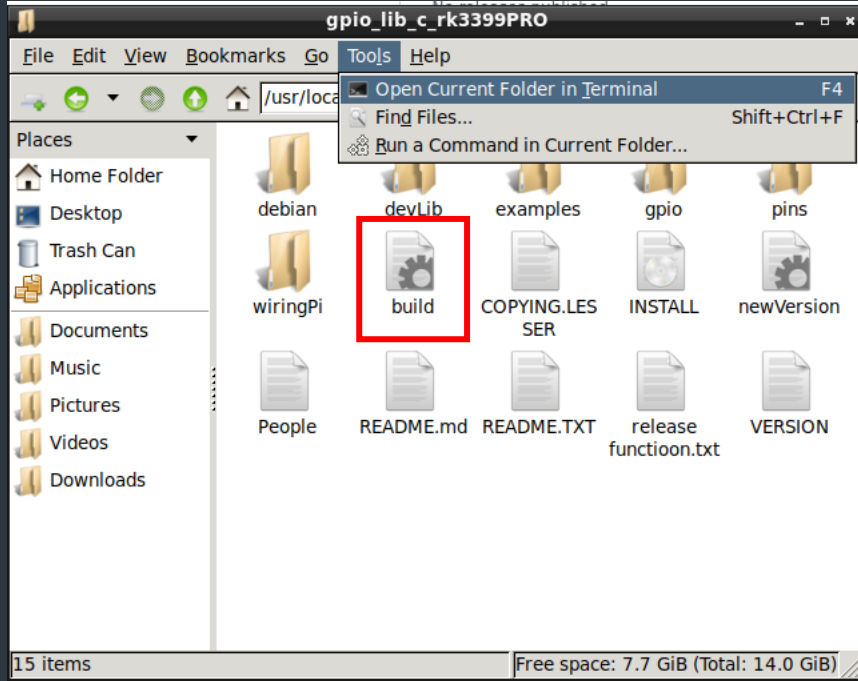
1. Terminal이 gpio\_lib\_python\_rk3399pro로 디렉토리가 설정 되었는지 확인
2. sudo python3 setup.py install 입력

```
linaro@linaro-alip: /usr...lib_python_rk3399PRO - □ ▸
or: setup.py --help [cmd1 cmd2 ...]
or: setup.py --help-commands
or: setup.py cmd --help

error: no commands supplied
linaro@linaro-alip:/usr/local/share/gpio_lib_python_rk3399PRO$ sudo python3 set
p.py install
running install
running build
running build_py
running build_ext
running install_lib
running install_egg_info
Removing /usr/local/lib/python3.7/dist-packages/ASUS.GPIO-0.1.egg-info
Writing /usr/local/lib/python3.7/dist-packages/ASUS.GPIO-0.1.egg-info
running install
running build
running build_py
running build_ext
running install_lib
running install_egg_info
Removing /usr/local/lib/python3.7/dist-packages/RPi.GPIO-0.1.egg-info
Writing /usr/local/lib/python3.7/dist-packages/RPi.GPIO-0.1.egg-info
linaro@linaro-alip:/usr/local/share/gpio_lib_python_rk3399PRO$
```

# Debian Tinker 기본 설정(Git Clone C build)

1. 경로 지정의 편의를 위해 /usr/local/share/gpio\_lib\_c\_rk3399pro 폴더 진입
2. build 파일 확인
3. Tools-Open Current Folder in Terminal 클릭



# Debian Tinker 기본 설정(Git Clone C build)

1. Terminal이 gpio\_lib\_c\_rk3399pro로 디렉토리가 설정 되었는지 확인
2. sudo ./build 입력

```
linaro@linaro-alip: /usr.../gpio_lib_c_rk3399PRO - □ ×  
  
ldconfig: file /usr/lib/mali/libmali-midgard-t86x-r18p0-x11.so is truncated  
ldconfig: file /usr/lib/mali/libmali.so.1 is truncated  
ldconfig: file /usr/lib/mali/libmali.so.1.9.0 is truncated  
ldconfig: file /usr/lib/libmali.so.1 is truncated  
  
GPIO Utility  
make: Nothing to be done for 'all'.  
[Install]  
  
All Done.  
  
NOTE: To compile programs with wiringPi, you need to add:  
-lwiringPi  
to your compile line(s) To use the Gertboard, MaxDetect, etc,  
code (the devLib), you need to also add:  
-lwiringPiDev  
to your compile line(s).  
  
linaro@linaro-alip:/usr/local/share/gpio_lib_c_rk3399PRO$ sudo ./build
```