Creality Sonic Pad

User-defined model firmware compilation guide

1、Download and install VirtualBox

2、Download Ubuntu

3、Create a new virtual machine and install Ubuntu system

4、System upgrade and install git

5、Download Klipper firmware

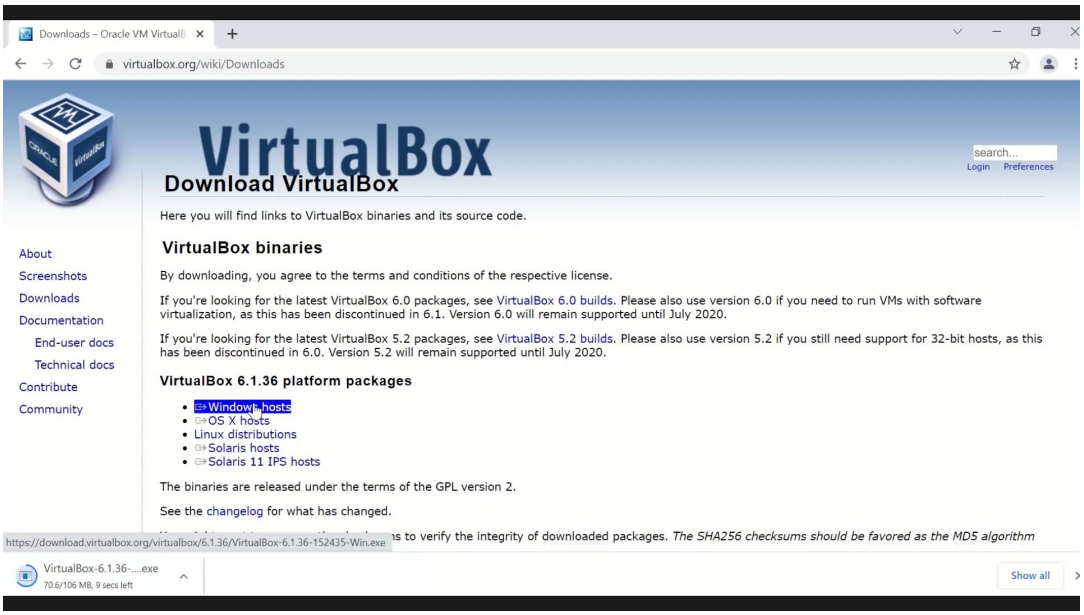
6、Configure printer firmware

7、Upgrade printer firmware via SD/TF card

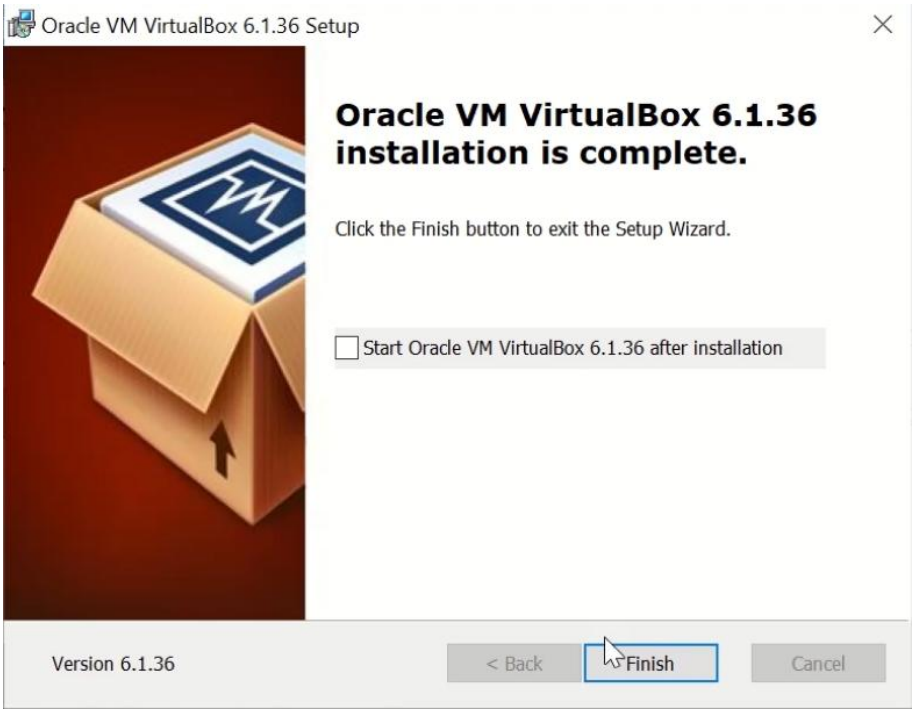
8、Upgrade printer firmware via USB

1、Download and install VirtualBox

Download VirtualBox from www.VirtualBox.org

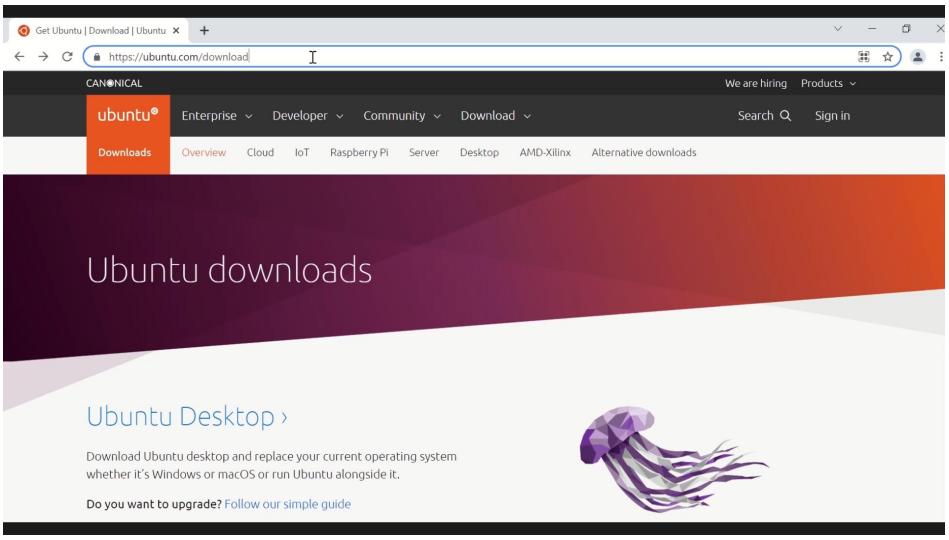


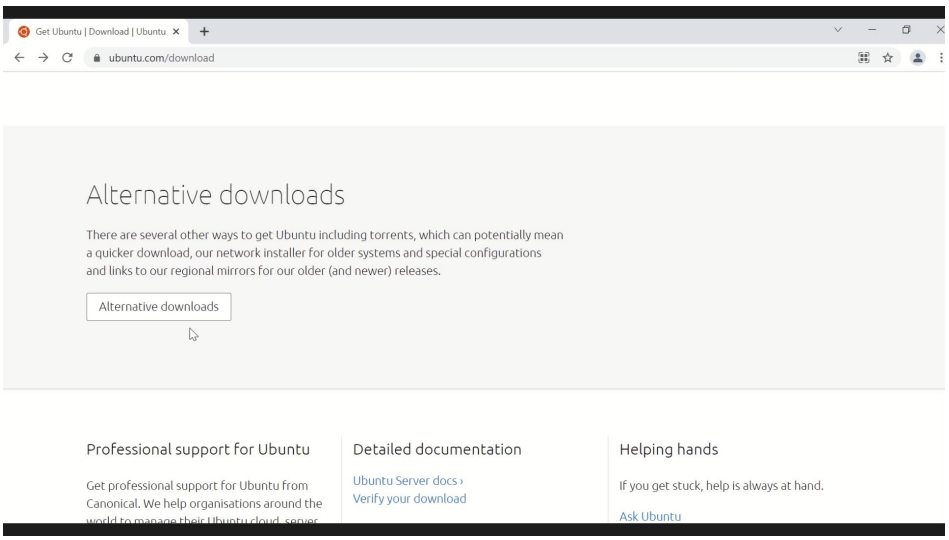
Download and install VirtualBox（Do not open it yet after installation）

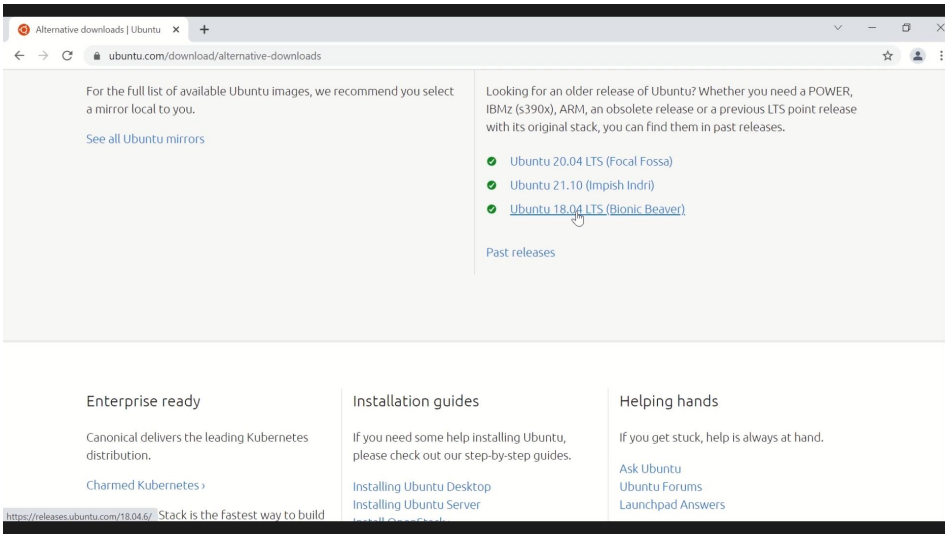


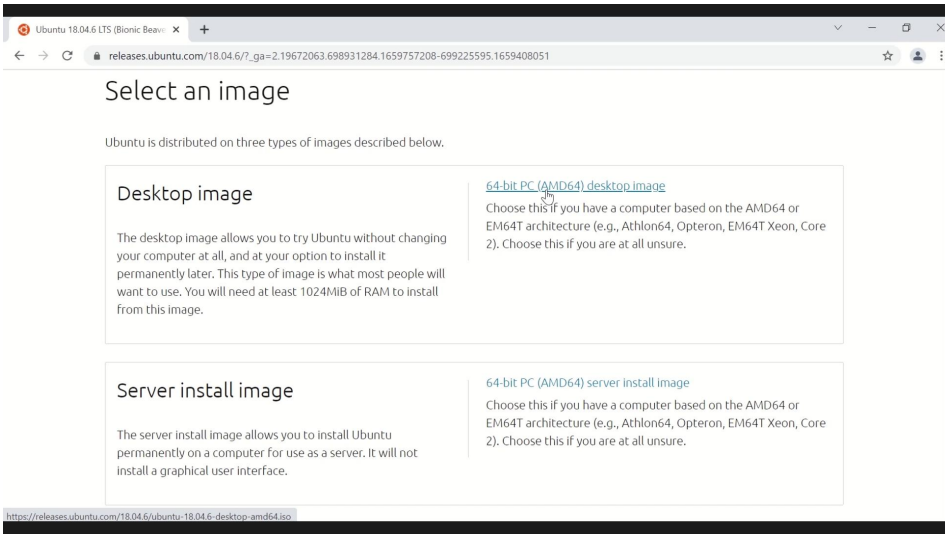
2、Download Ubuntu

Download Ubuntu 18.04.LTS from www.ubuntu.com/download






Alternative downloads | Ubuntu
ubuntu.com/download/alternative-downloads
For the full list of available Ubuntu images, we recommend you select a mirror local to you.
See all Ubuntu mirrors
Looking for an older release of Ubuntu? Whether you need a POWER, IBMz (s390x), ARM, an obsolete release or a previous LTS point release with its original stack, you can find them in past releases.
Ubuntu 20.04 LTS (Focal Fossa)
Ubuntu 21.10 (Impish Indri)
Ubuntu 18.04 LTS (Bionic Beaver)
Past releases
Enterprise ready
Canonical delivers the leading Kubernetes distribution.
Charmed Kubernetes ›
Installation guides
If you need some help installing Ubuntu, please check out our step-by-step guides.
Installing Ubuntu Desktop
Installing Ubuntu Server
Helping hands
If you get stuck, help is always at hand.
Ask Ubuntu
Ubuntu Forums
Launchpad Answers
https://releases.ubuntu.com/18.04.6/
Stack is the fastest way to build

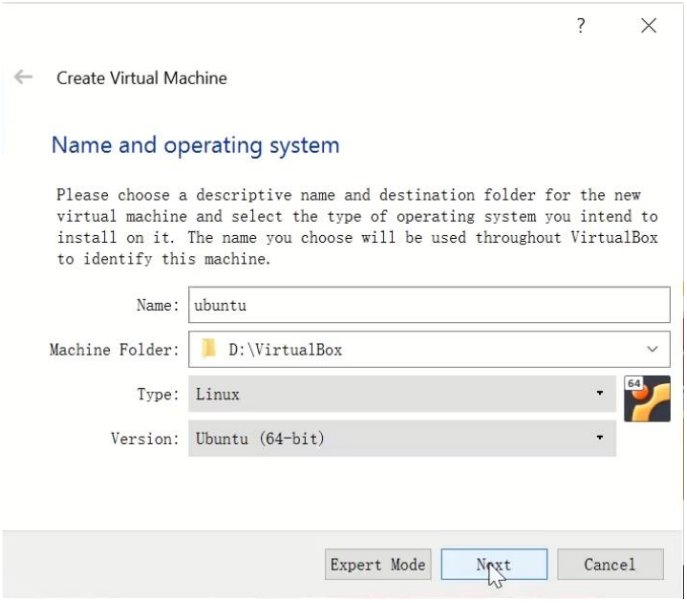

Ubuntu 18.04.6 LTS (Bionic Beaver)
releases.ubuntu.com/18.04.6/?_ga=2.19672063.698931284.1659757208-699225595.1659408051
Select an image
Ubuntu is distributed on three types of images described below.
Desktop image
The desktop image allows you to try Ubuntu without changing your computer at all, and at your option to install it permanently later. This type of image is what most people will want to use. You will need at least 1024MiB of RAM to install from this image.
64-bit PC (AMD64) desktop image
Choose this if you have a computer based on the AMD64 or EM64T architecture (e.g., Athlon64, Opteron, EM64T Xeon, Core 2). Choose this if you are at all unsure.
Server install image
The server install image allows you to install Ubuntu permanently on a computer for use as a server. It will not install a graphical user interface.
64-bit PC (AMD64) server install image
Choose this if you have a computer based on the AMD64 or EM64T architecture (e.g., Athlon64, Opteron, EM64T Xeon, Core 2). Choose this if you are at all unsure.
https://releases.ubuntu.com/18.04.6/ubuntu-18.04.6-desktop-amd64.iso

3、Create a new virtual machine and install Ubuntu system

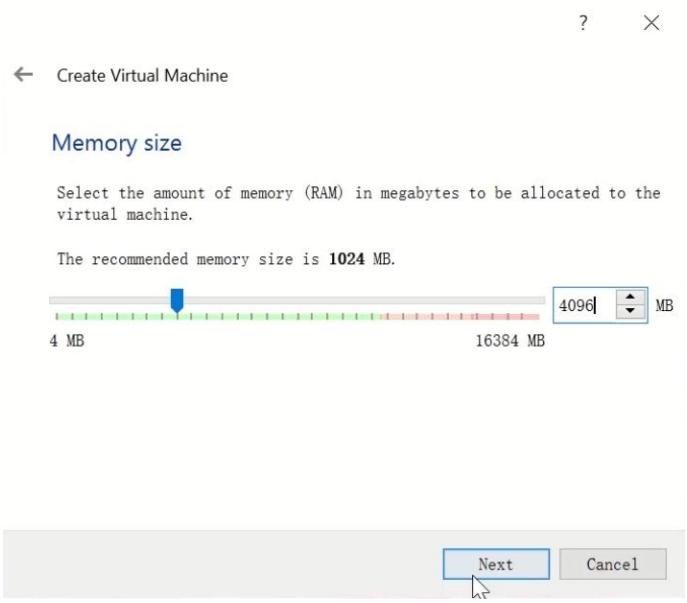
Open VirtuslBox and create a new virtual machine

Select destination folder、Enter a name,

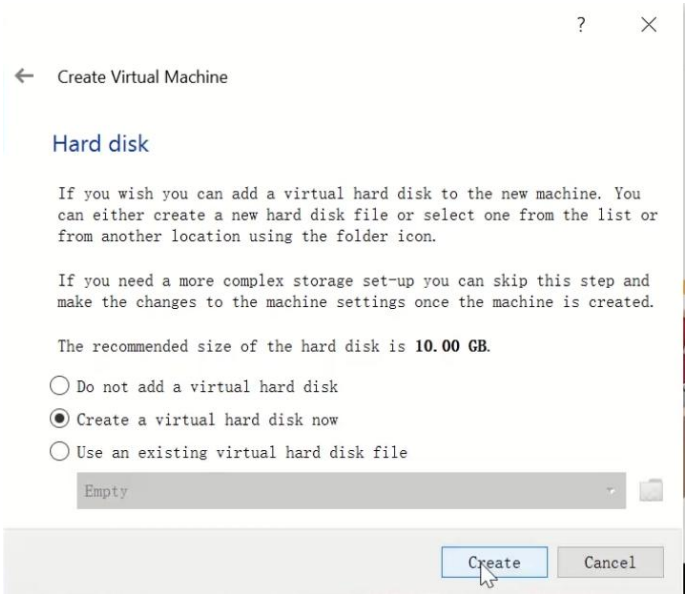
Type: Select Linux、Version: Select Ubuntu（64-bit）



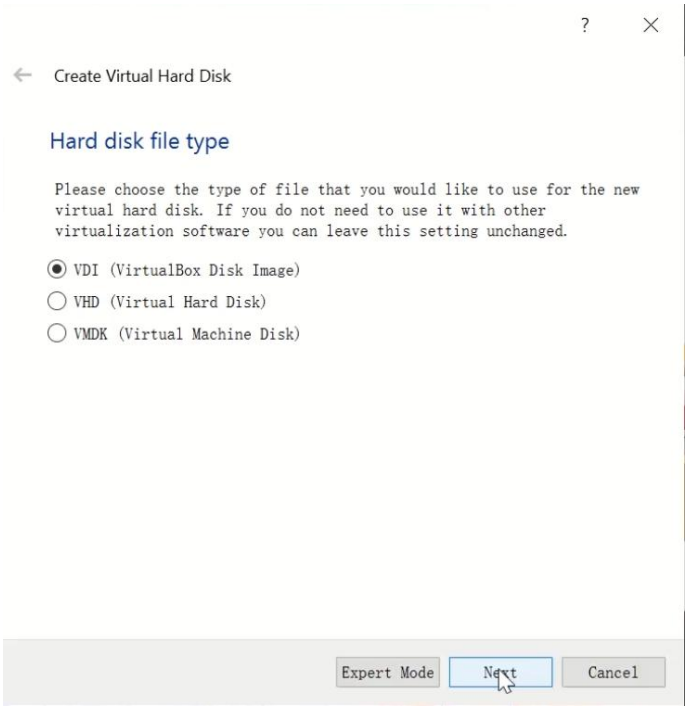
Resize memory to 4096MB



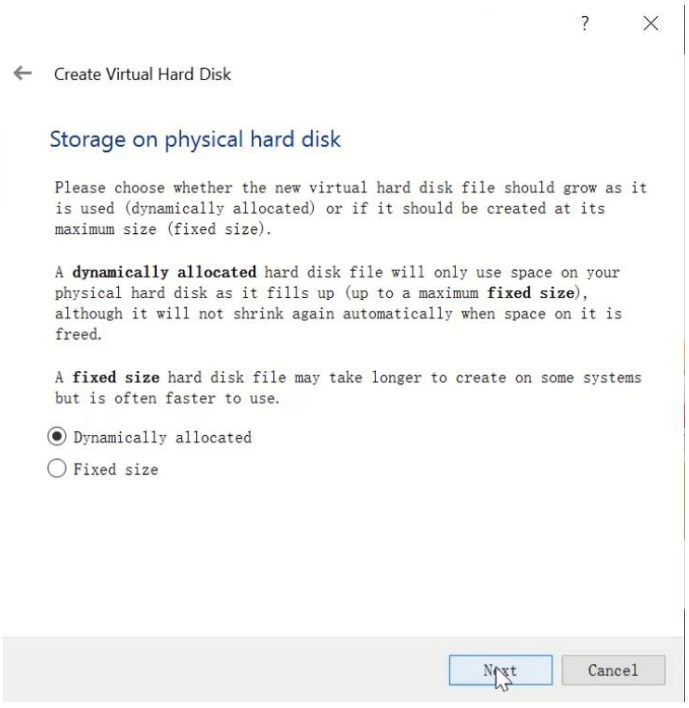
Create a virtual hard disk



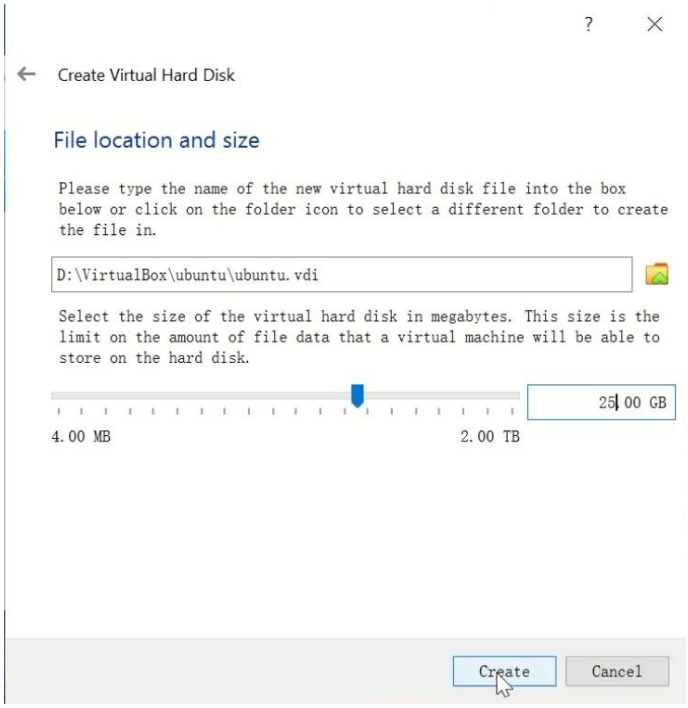
Select VDI



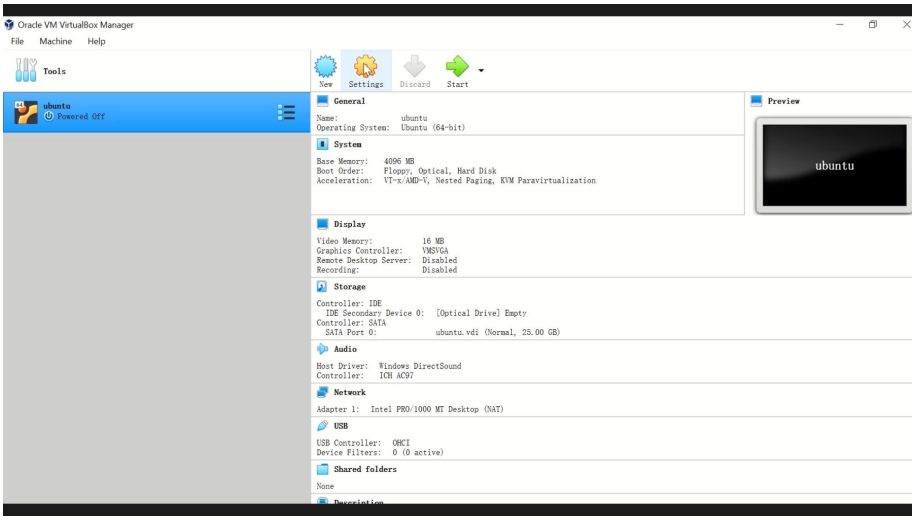
Select dynamic allocation



Resize the virtual hard disk to 25GB

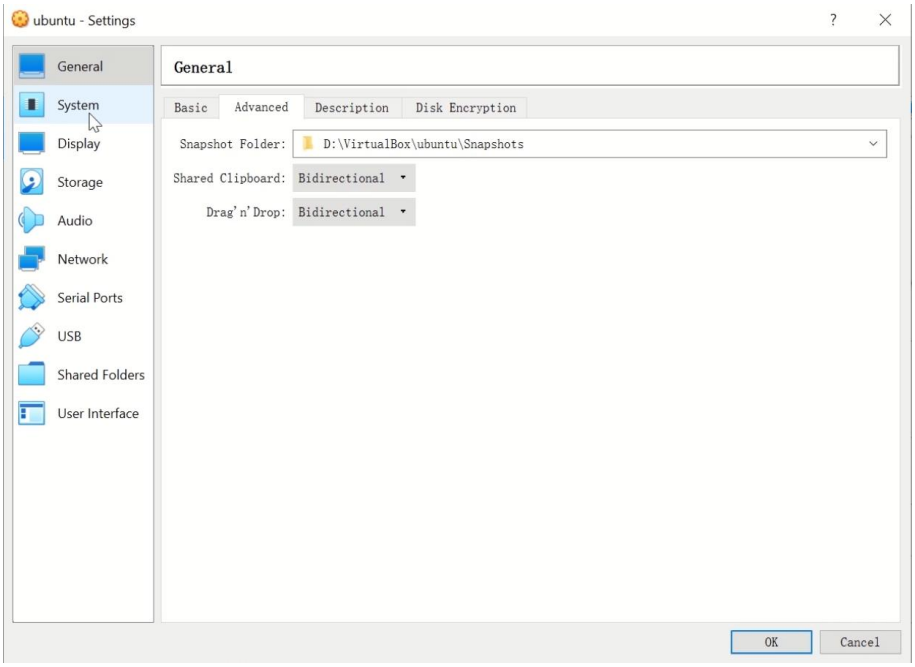


Open the settings

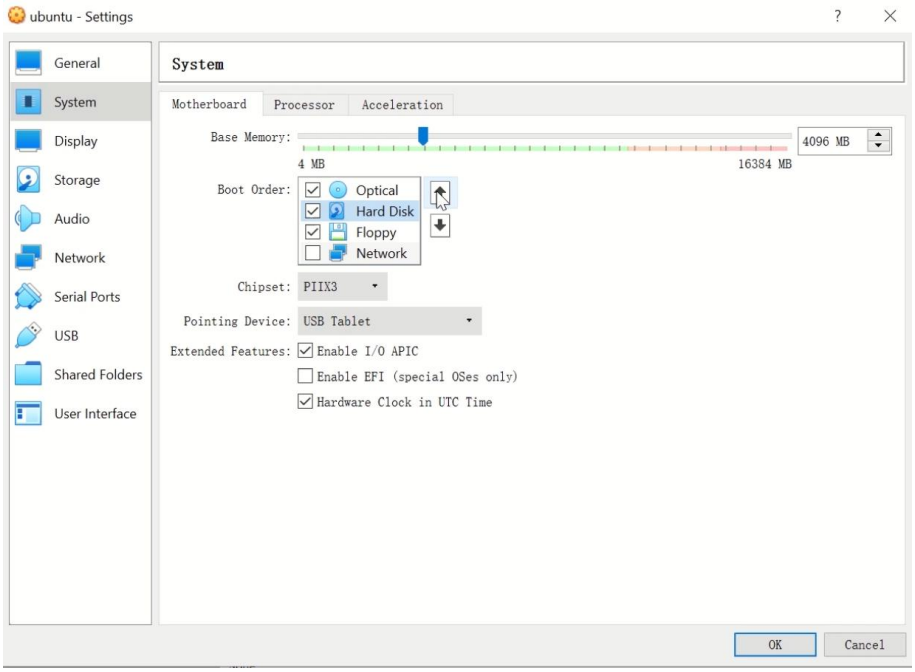


General Settings – Advanced,

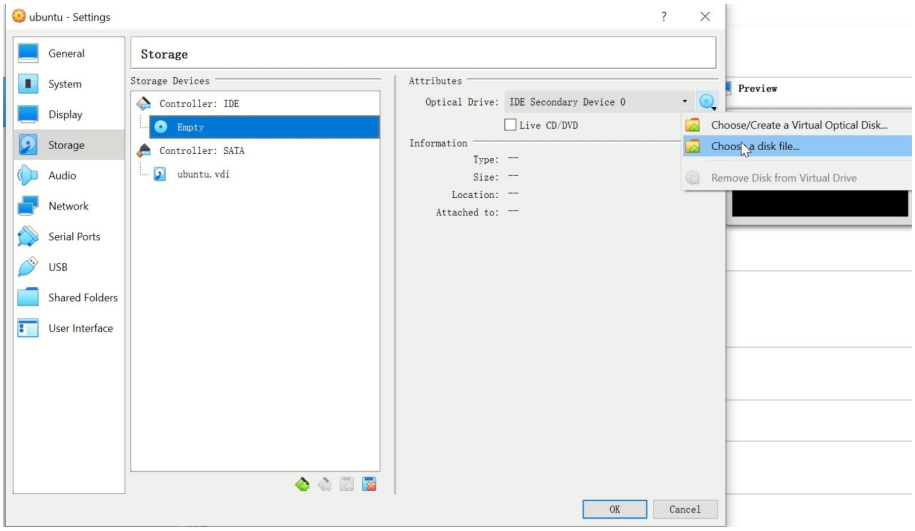
Change the shared clipboard and the drag and drop to bidirectional

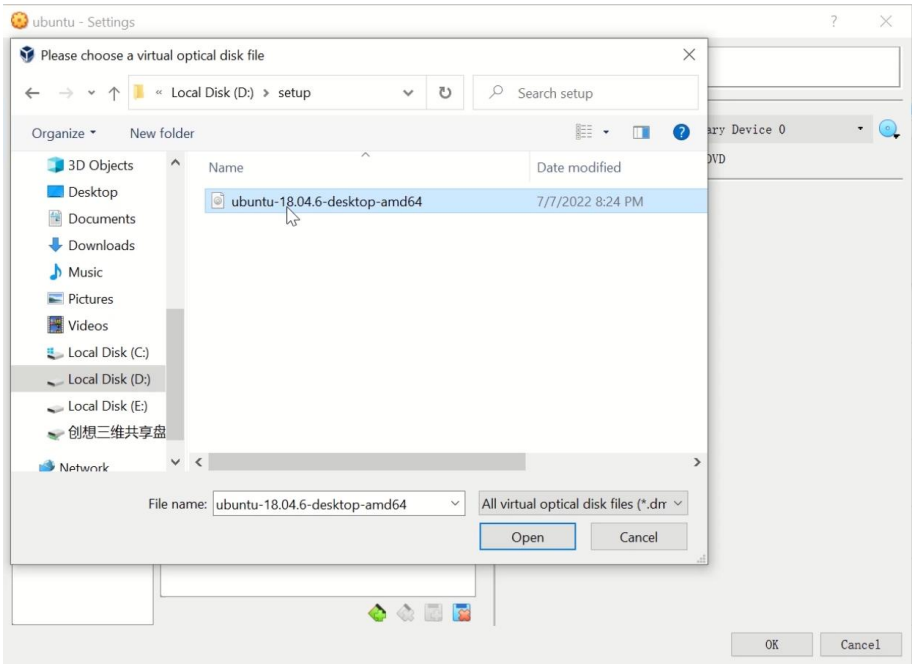


System settings - adjust the boot order to optical drive - hard disk - floppy drive

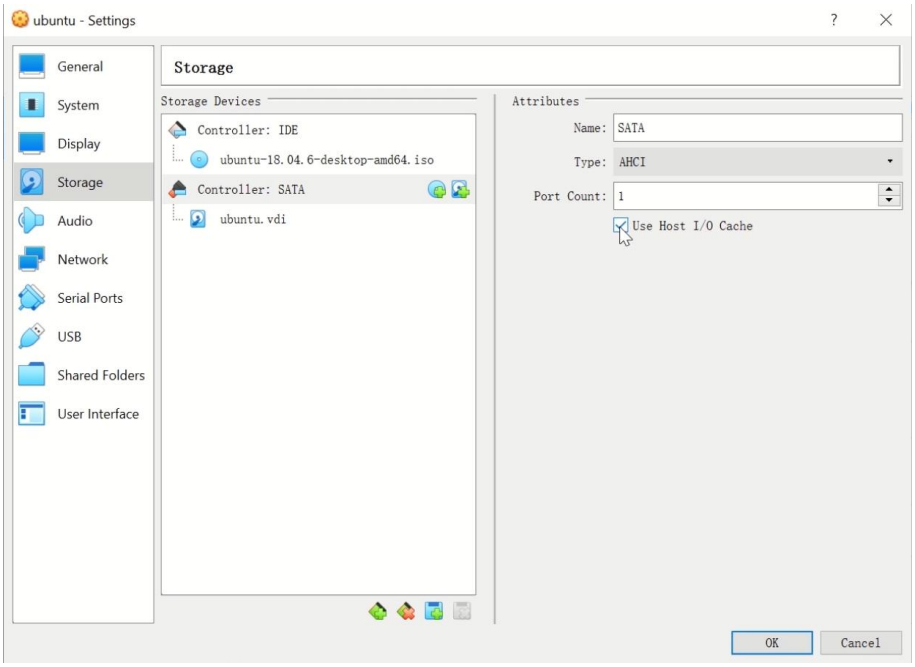


Storage Settings--IDE--Select Downloaded Ubuntu 18.04.6LTS

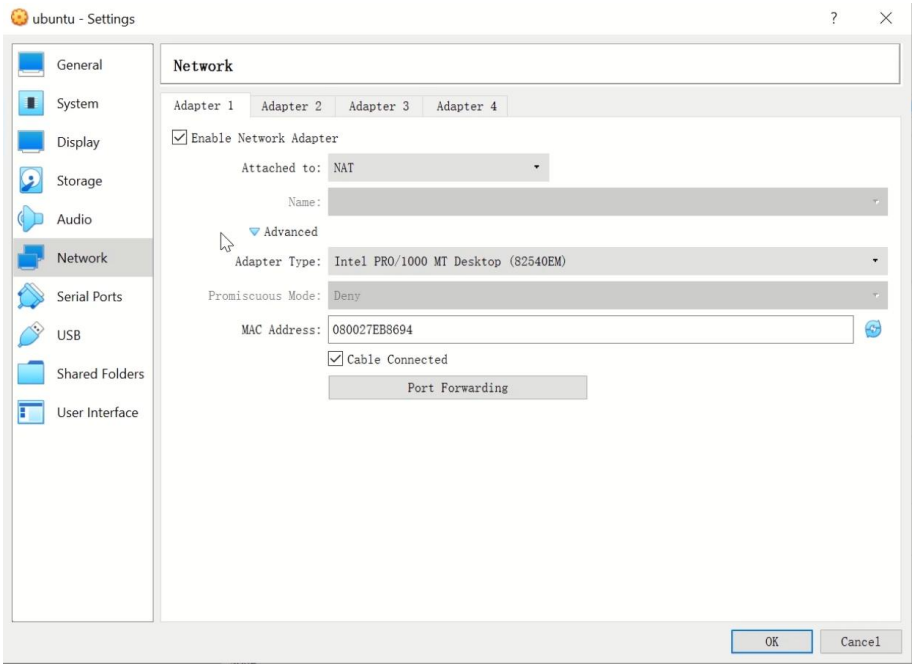




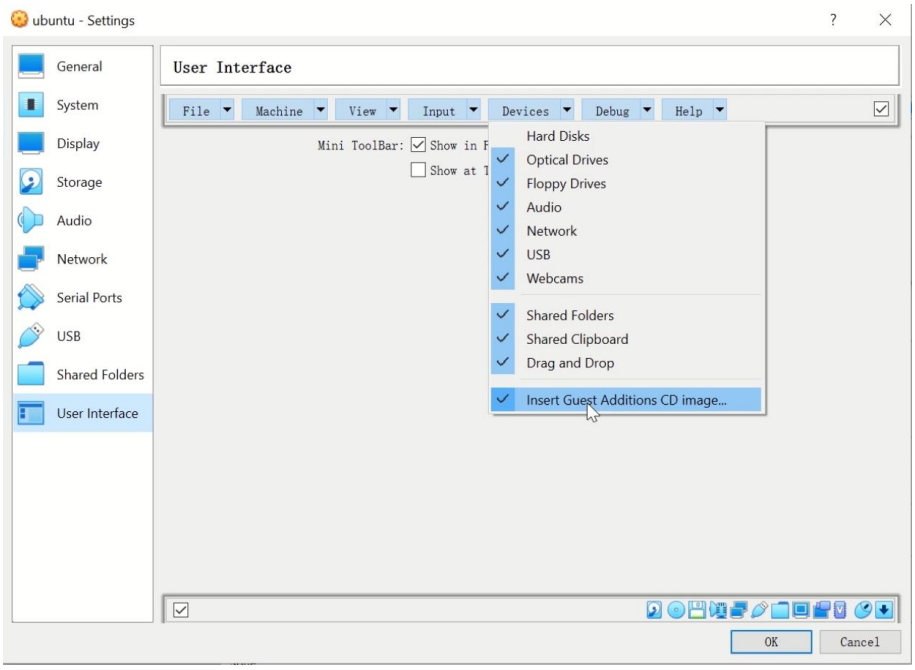
SATA--tick Use Host I/0 Cache



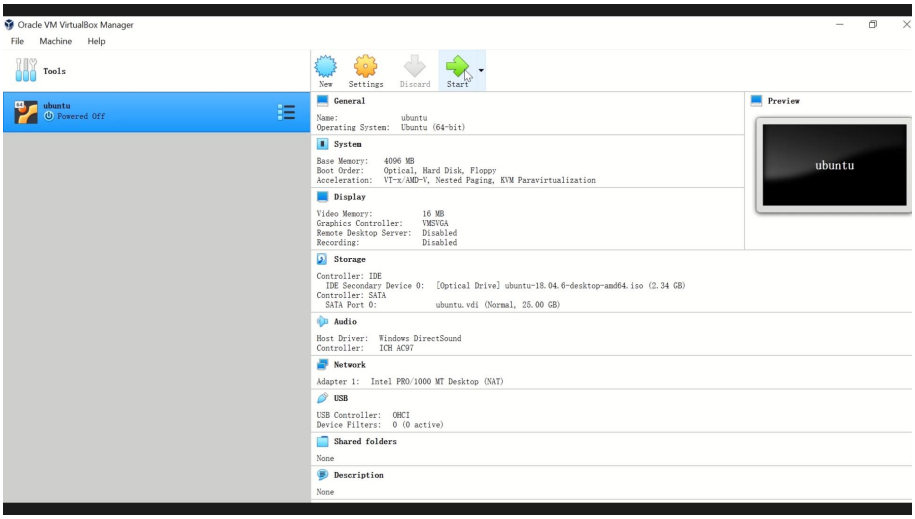
Network Settings - Advanced - Make sure the network is connected



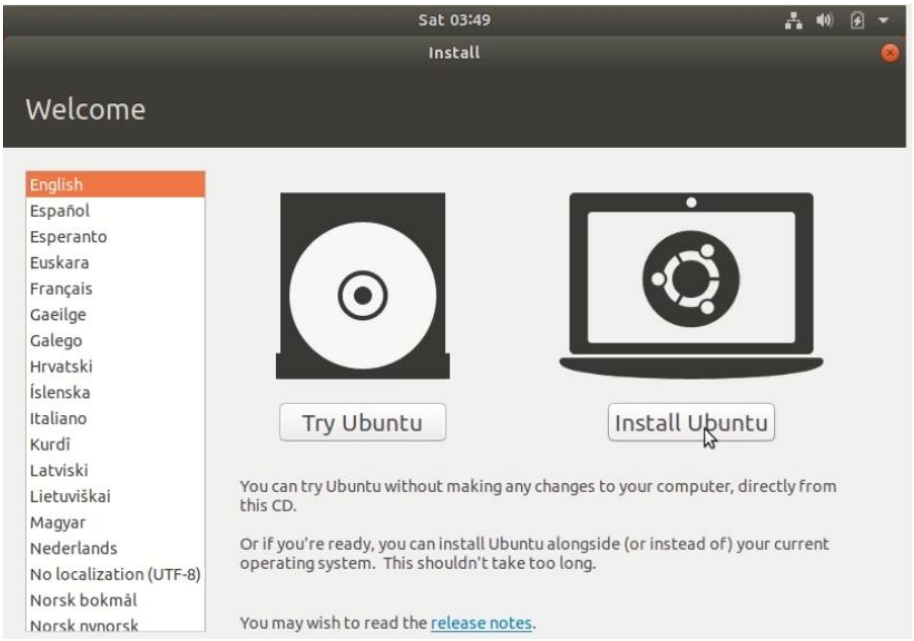
User Interface -Device-Tick Insert Guest additions CD image



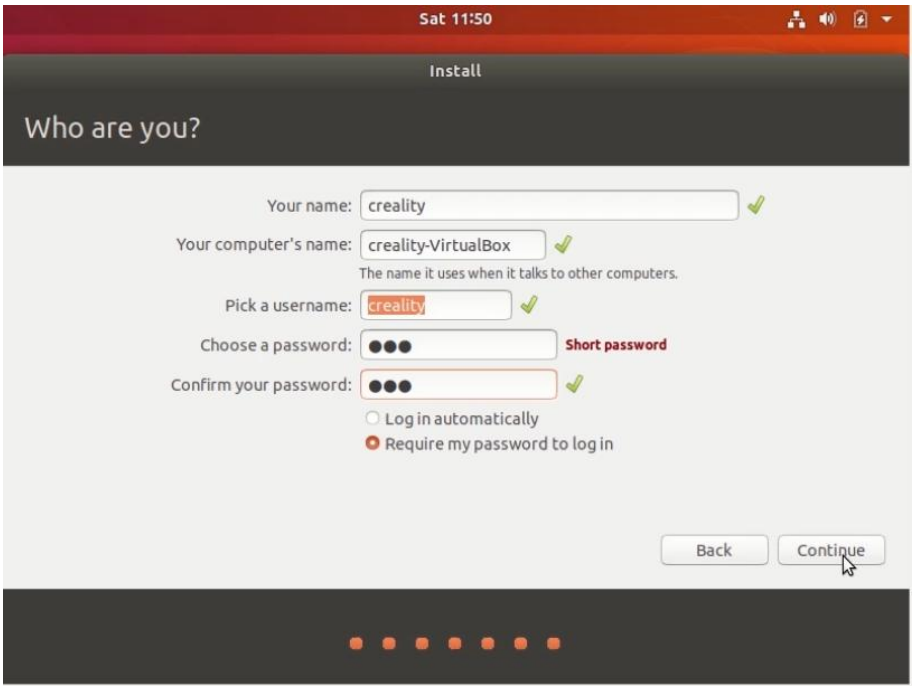
Start the virtual machine after confirmation



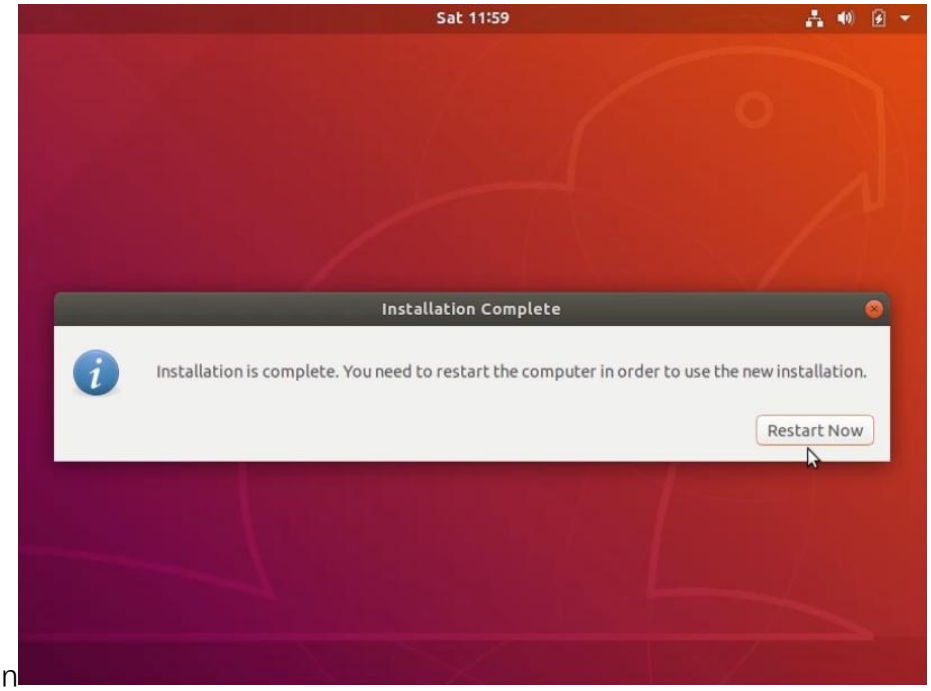
Install Ubuntu



Add username and system password

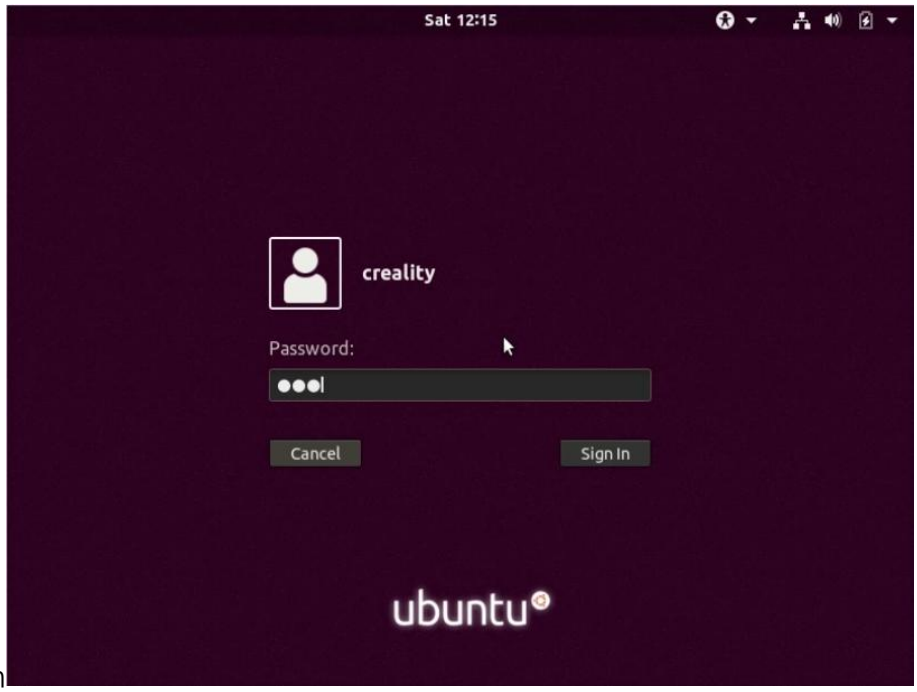


Wait for the restart after confirmation

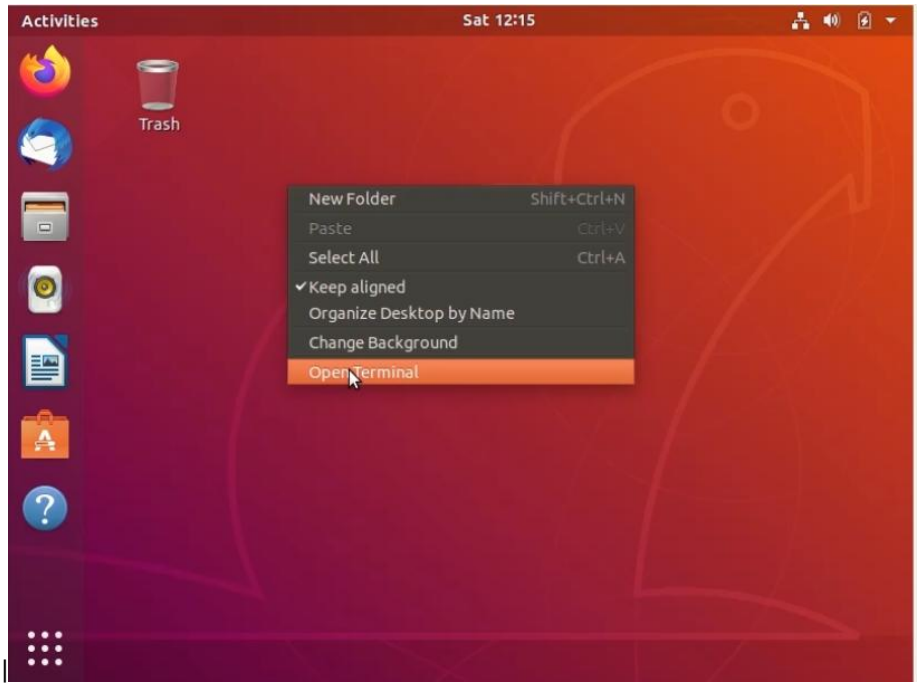


4、System upgrade and install git

Enter the system password you just set to enter the system

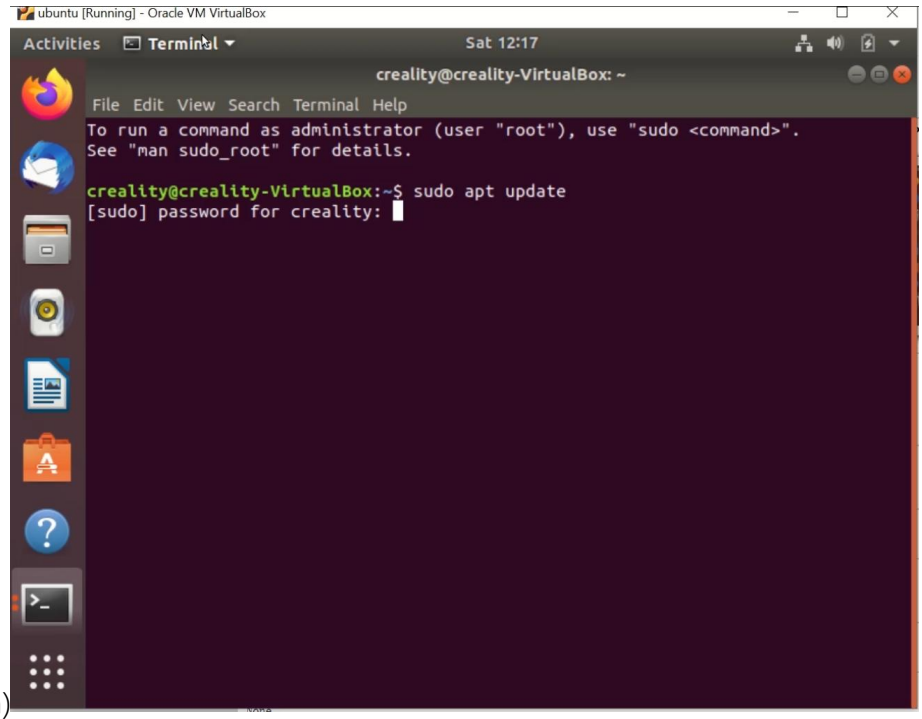


Desktop - right click - open terminal

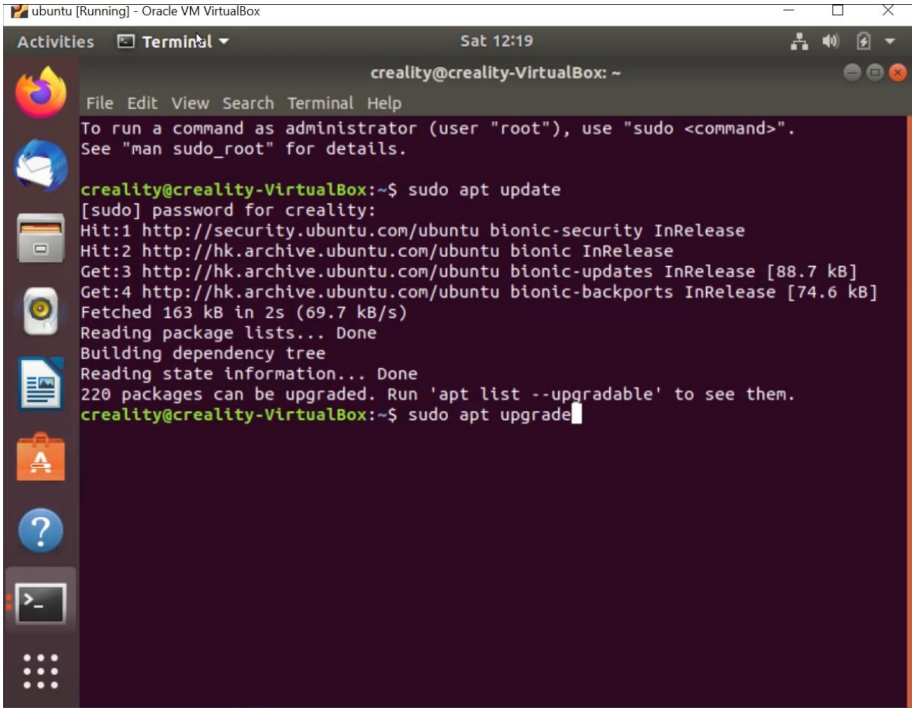


Enter "sudo apt update" and press Enter (list all updatable software)

Enter the system password and press Enter (the password is automatically hidden)

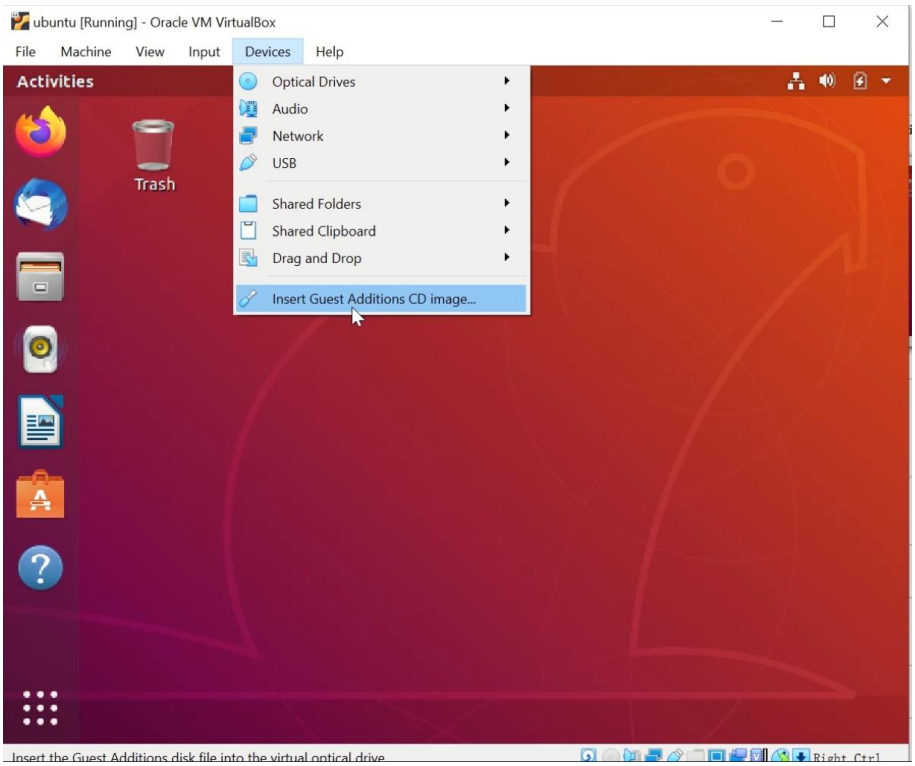


Enter "sudo apt upgrade" and press Enter（upgrade the package）

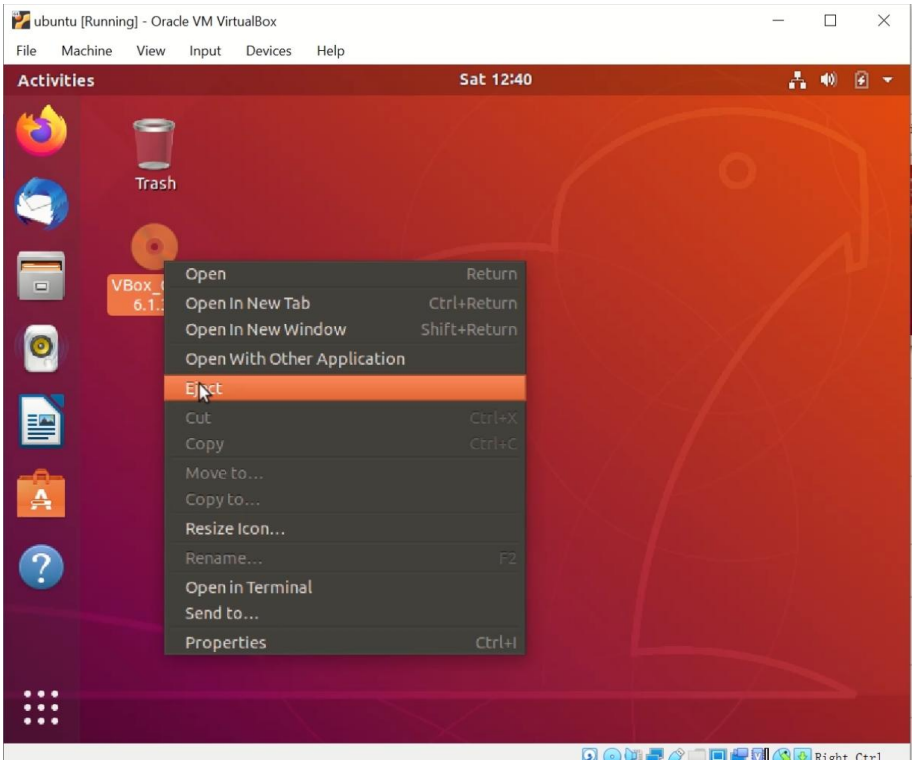


Close the terminal window when completed,

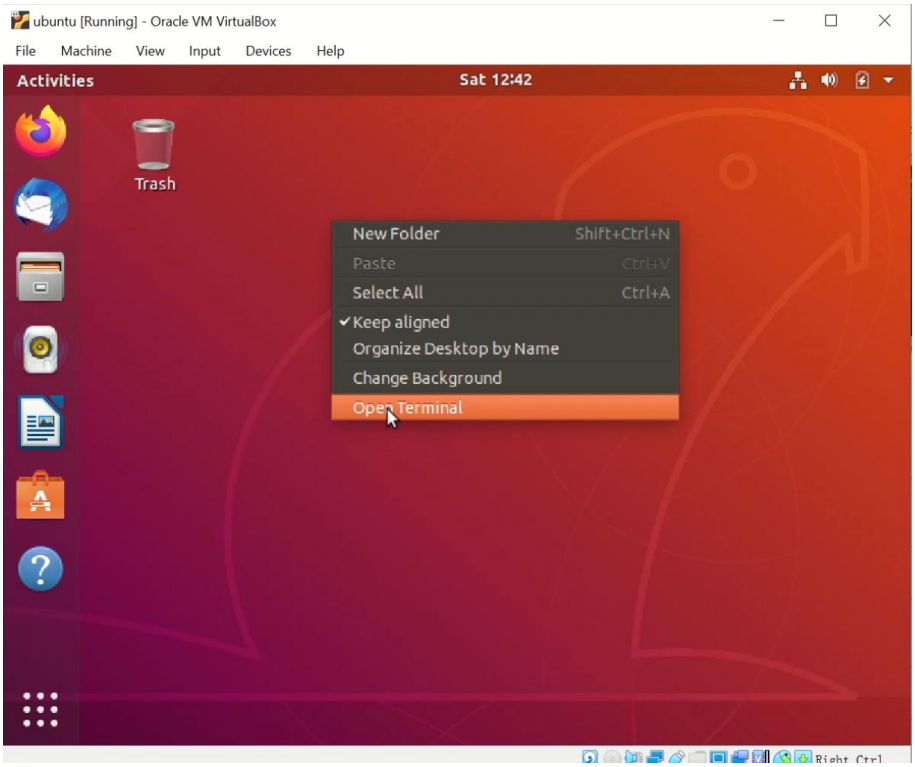
Devices -- Install Insert Guest additions CD image



Eject VBox_Gas after installation is completed

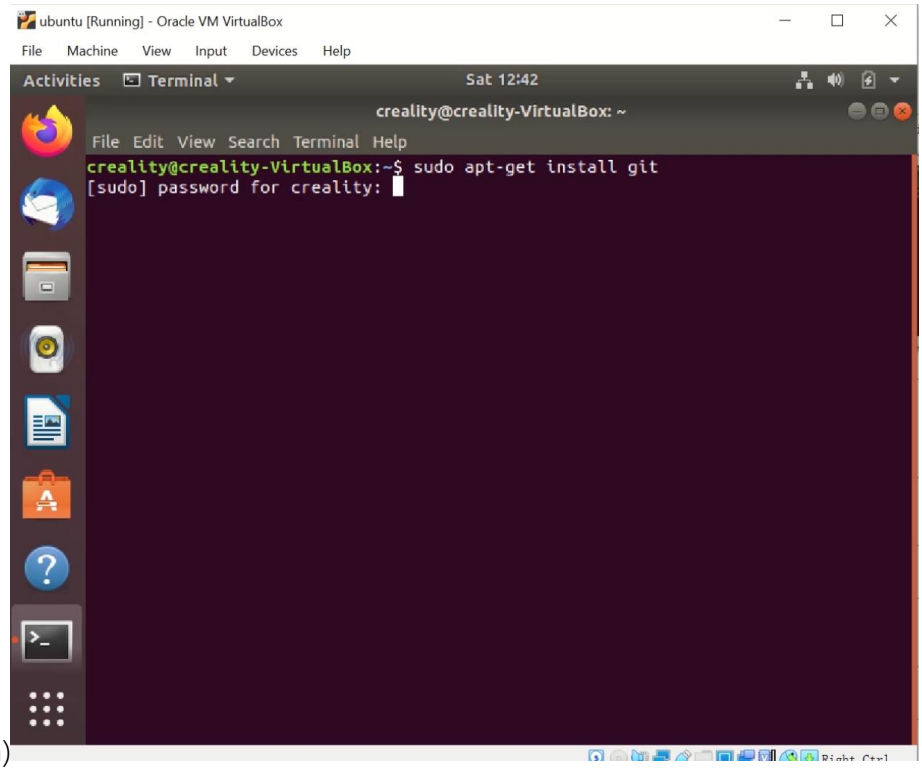


Desktop--right-click--open terminal

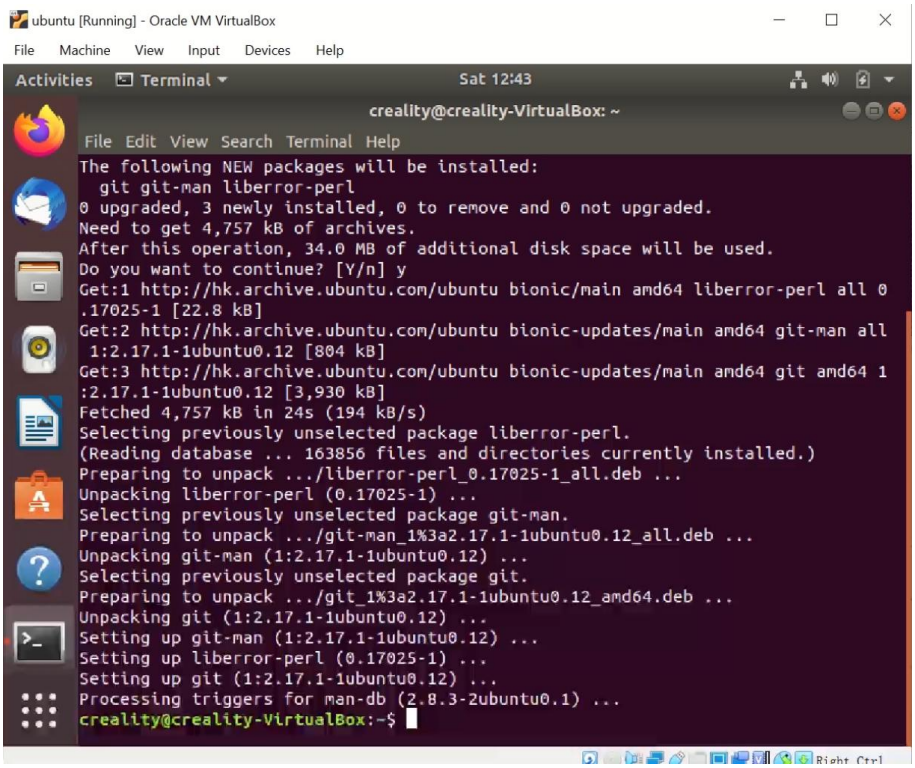


Enter "sudo apt-get install git" and press Enter （install git)

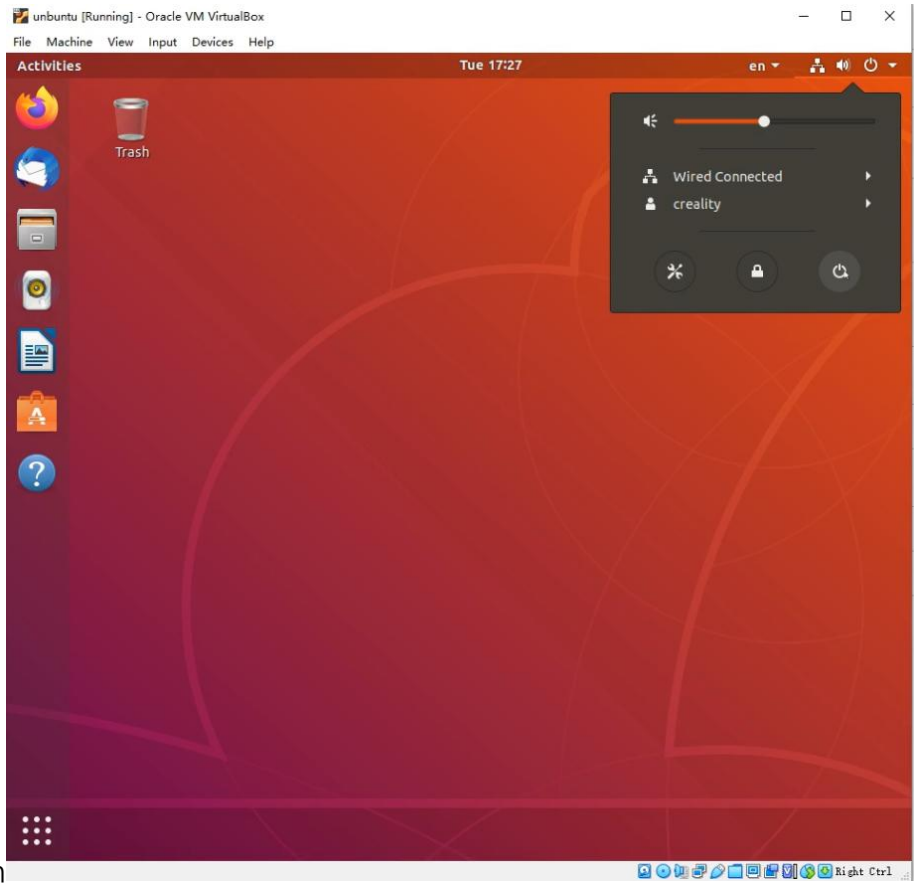
Enter the system password and press Enter (the password is automatically hidden)



Installation is completed



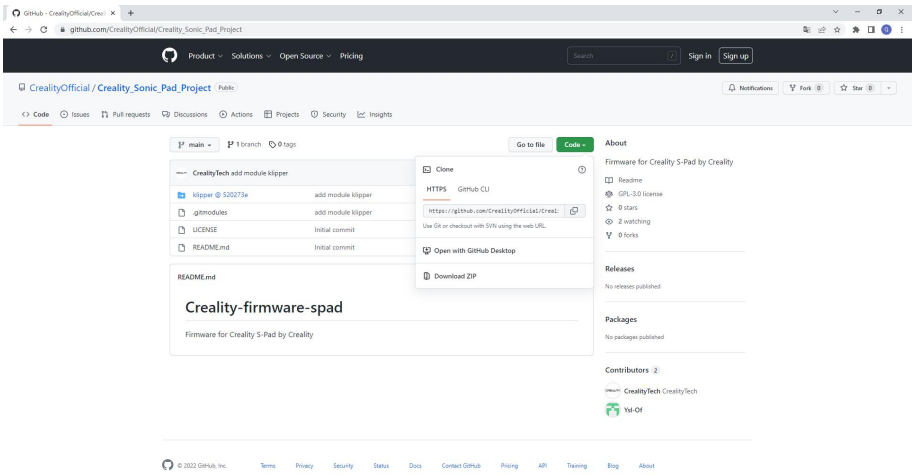
Restart the



system

5、Download Klipper firmware

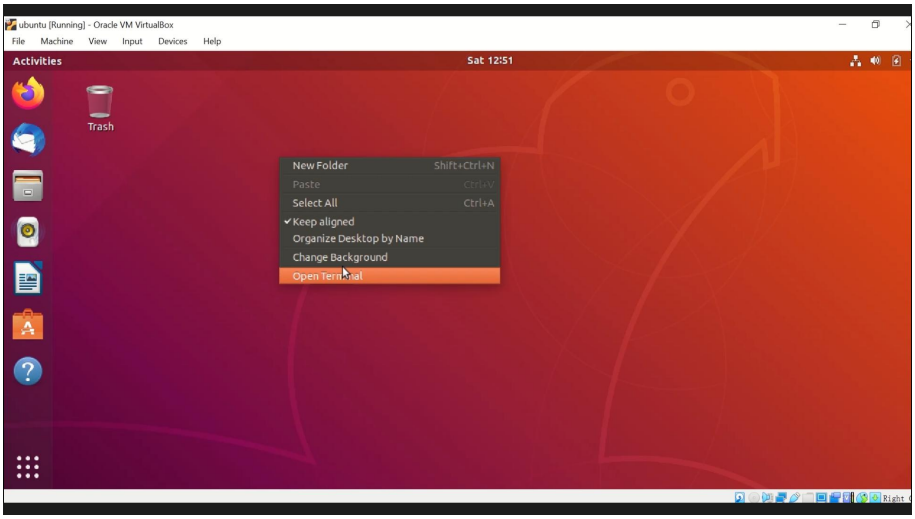
Copy the Klipper firmware address link at www.github.com/CrealityOfficial



Klipper firmware address

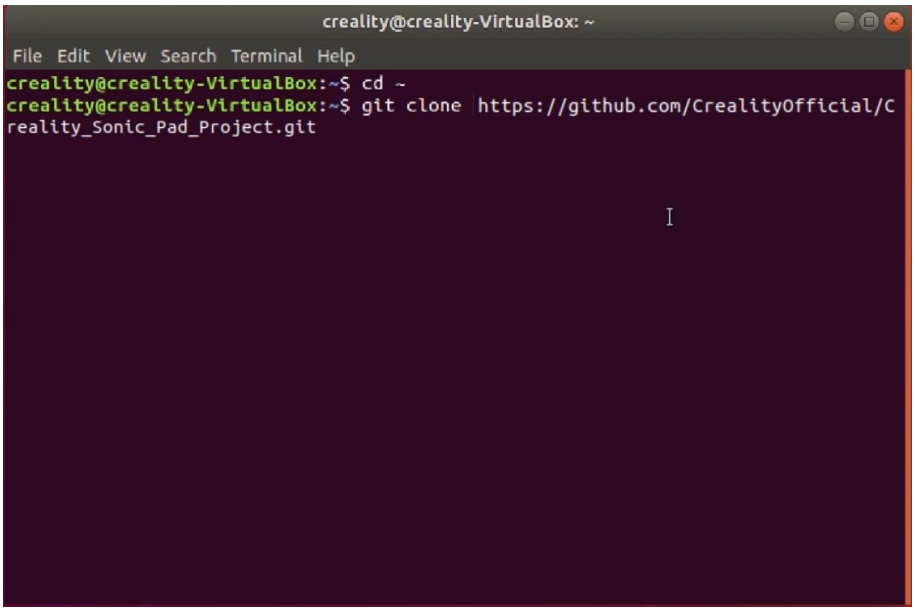
https://github.com/CrealityOfficial/Creality_Sonic_Pad_Project.git

Desktop--right-click--open terminal



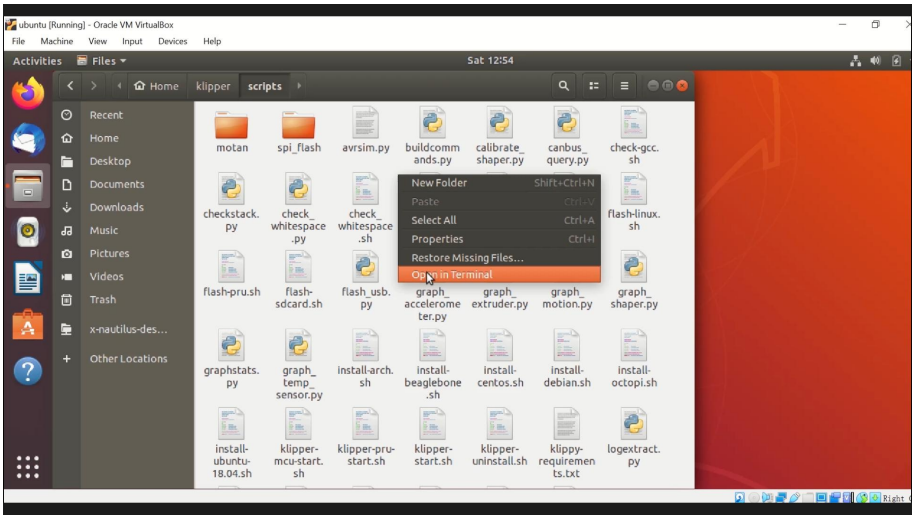
Enter "cd ~" and press Enter (switch the working directory to the home directory)

Enter "git clone" and paste the Klipper firmware address link -- Enter



6、Configure printer firmware

Open the file manager-Klipper folder-scripts folder-Right click-open in terminal

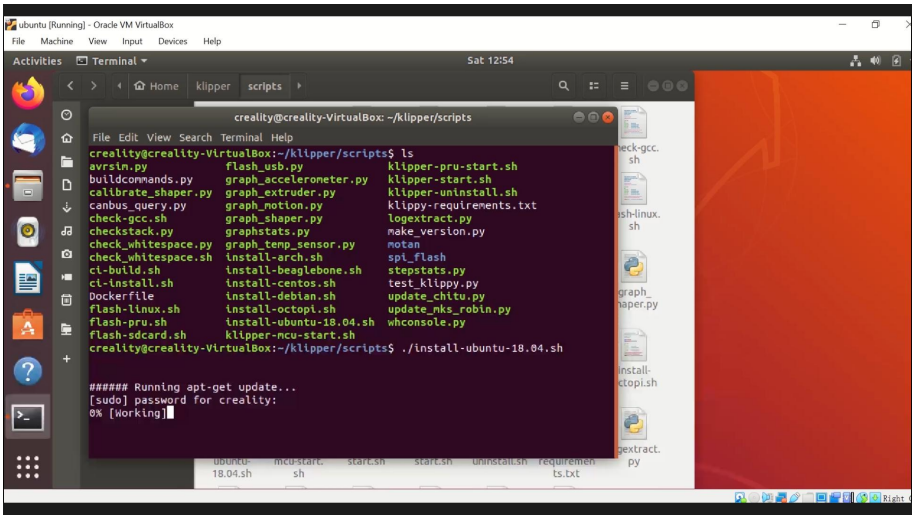


Enter "ls" and press Enter

(confirm that the content in the current directory is consistent with that in the folder)

Enter "./install-ubuntu-18.04.sh" and press Enter（install ubuntu）

Enter the system password and press Enter (the password is automatically hidden)

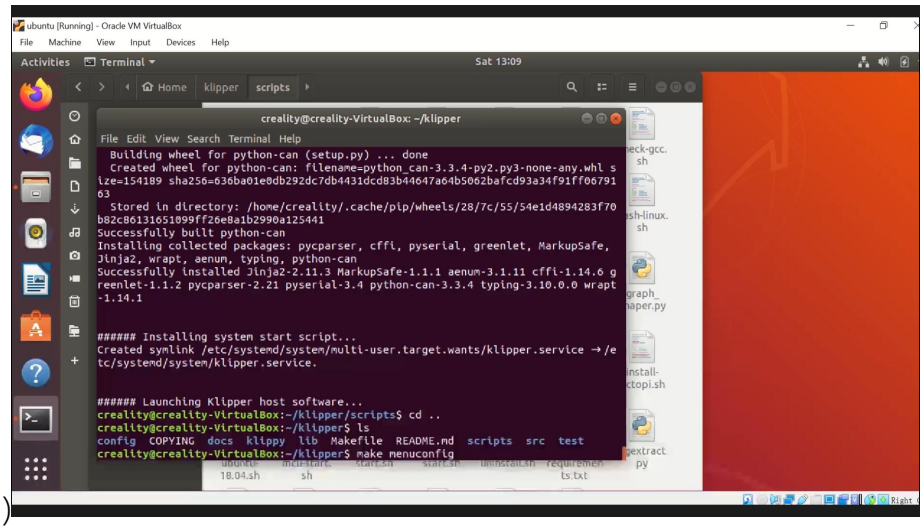


Enter "cd .." and then press Enter (switch to the upper directory)

Enter "ls" and press Enter

(confirm that the content in the current directory is consistent with that in the folder)

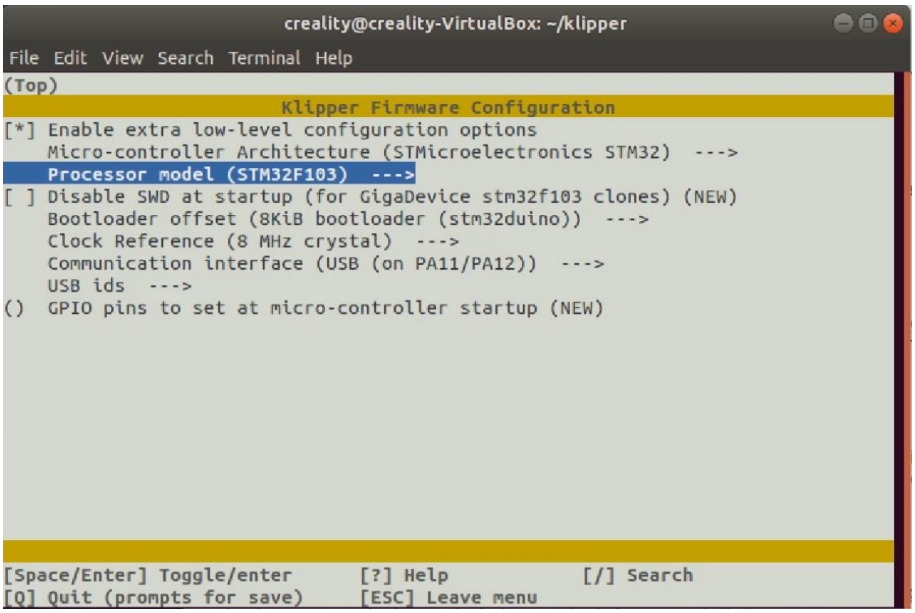
Enter "make menuconfig" and press Enter (configure the printer



motherboard)

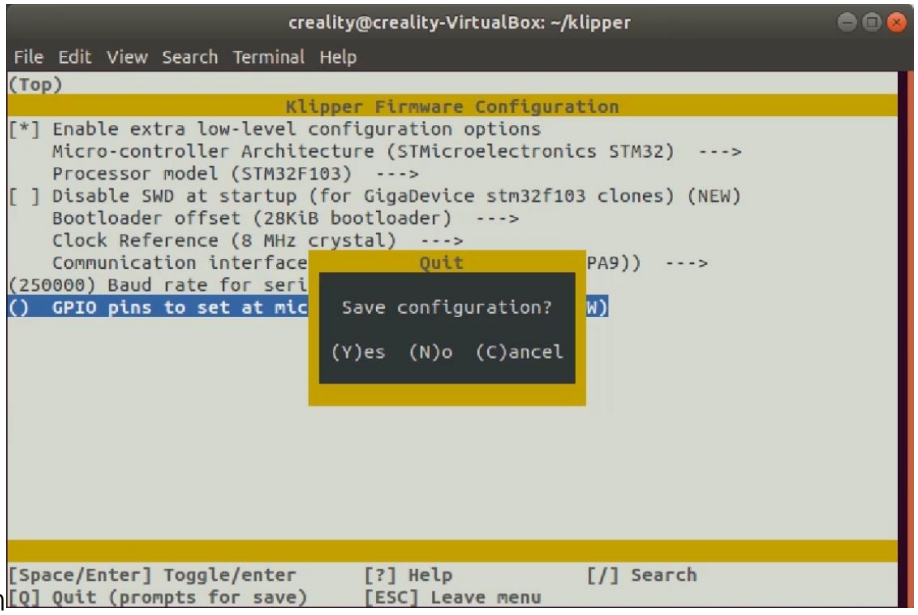
Select the Micro-controller Architecture、Processor model、Bootloader Offset、Clock Reference、Communication interface etc. parameters

(Example, please configure it according to the motherboard)

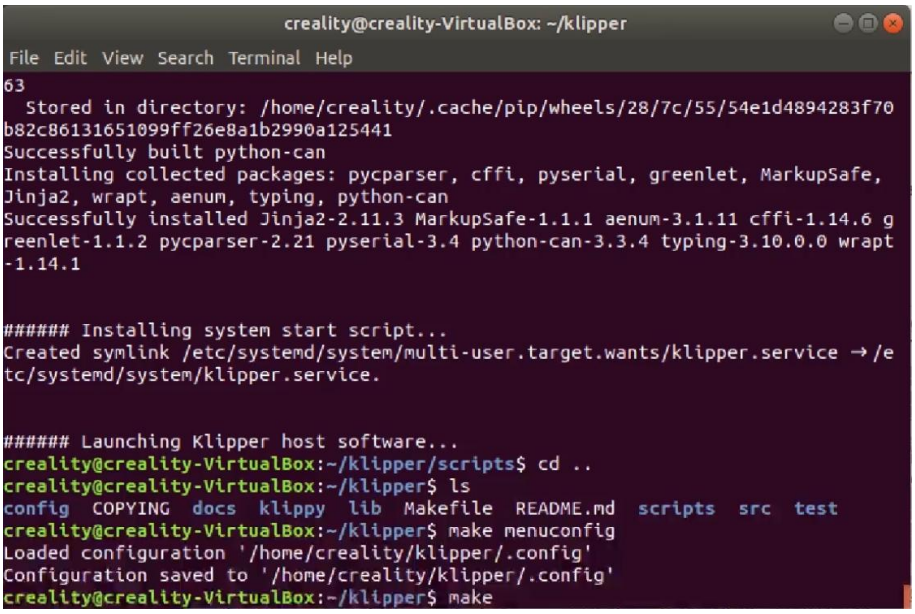


After the parameter configuration is completed, press "Q" to save,

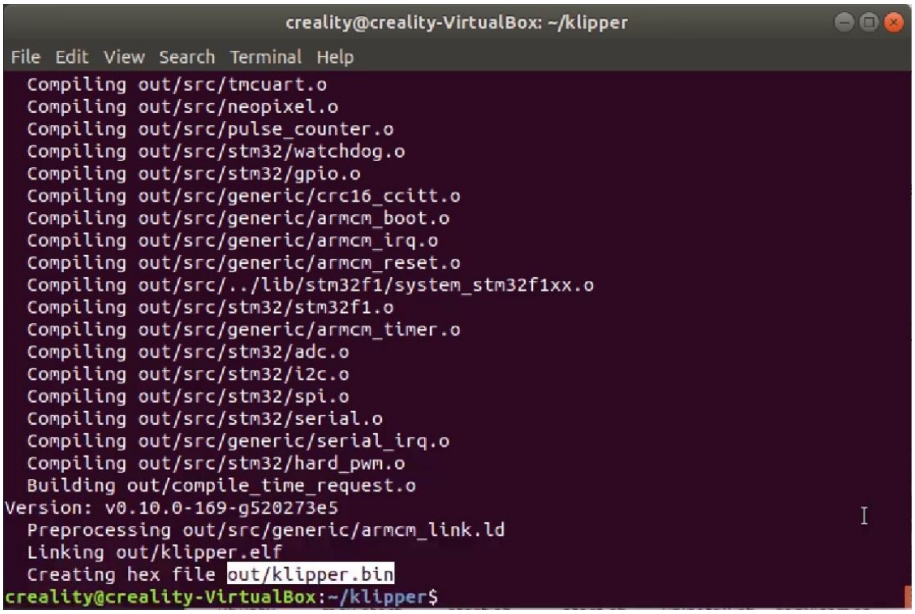
Press "Y" to confirm



Enter "make" and press Enter（generate firmware）

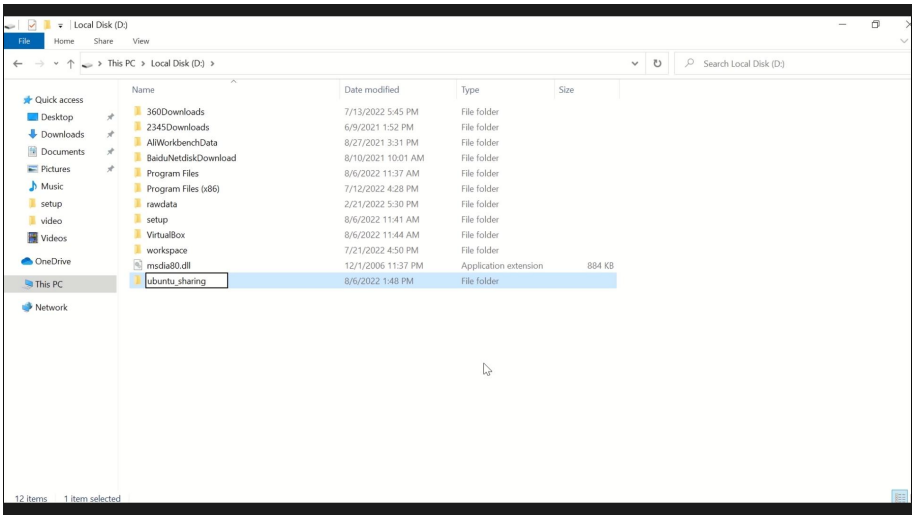


Find the firmware storage location



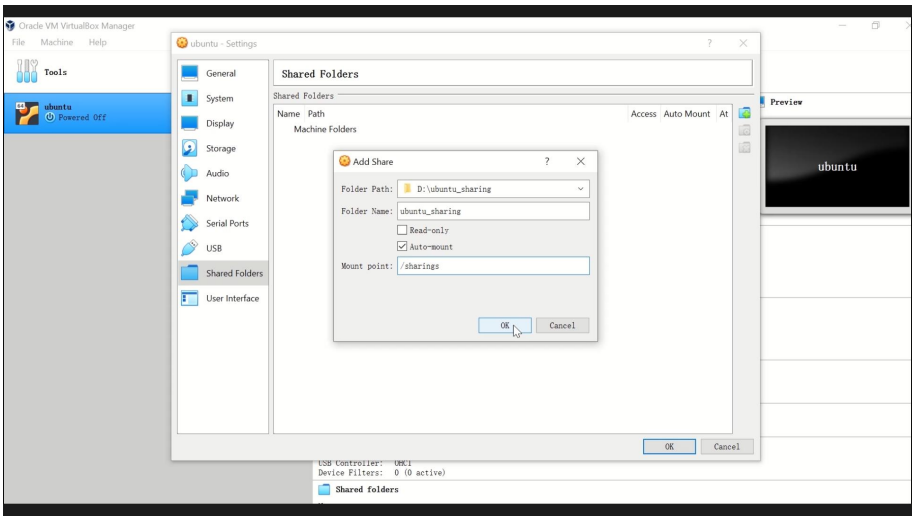
7、Upgrade printer firmware via SD/TF card

Create a new "ubuntu_sharing" on the computer disk

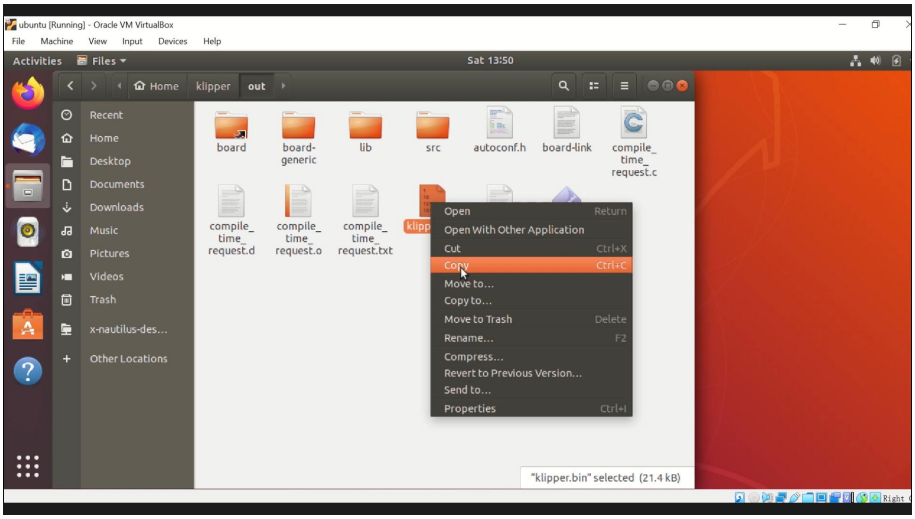


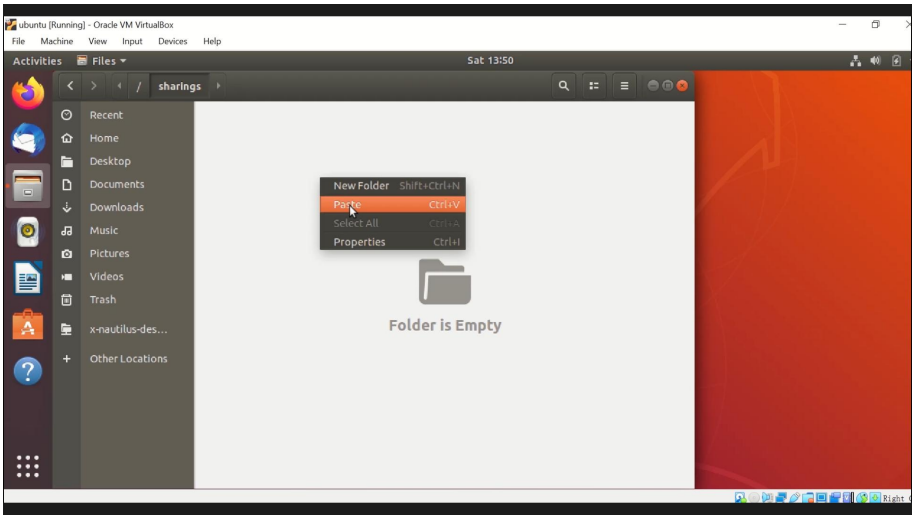
Open VirtualBox--Settings--Shared Folders

Add a shared folder (tick auto mount), Mount point type "/sharings"

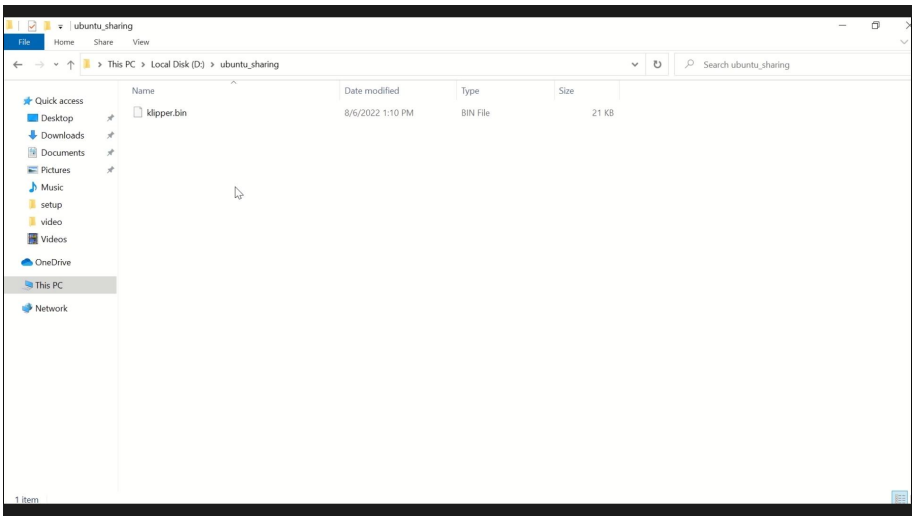


Copy the klipper.bin file just generated to the sharings folder





Copy klipper.bin in the ubuntu_sharing folder of the computer disk to the TF/SD



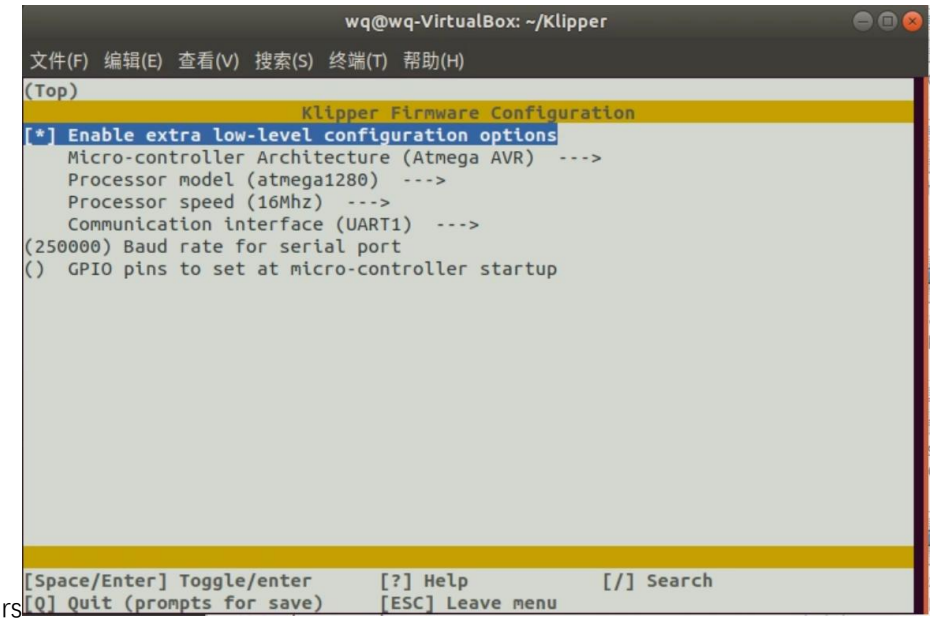
8、Upgrade printer firmware via USB

(The motherboard has no Bootloader and does not support SD card upgrades)

Please use a USB cable to connect the printer to the computer where the virtual machine is located. Please keep the connection during the firmware upgrade process

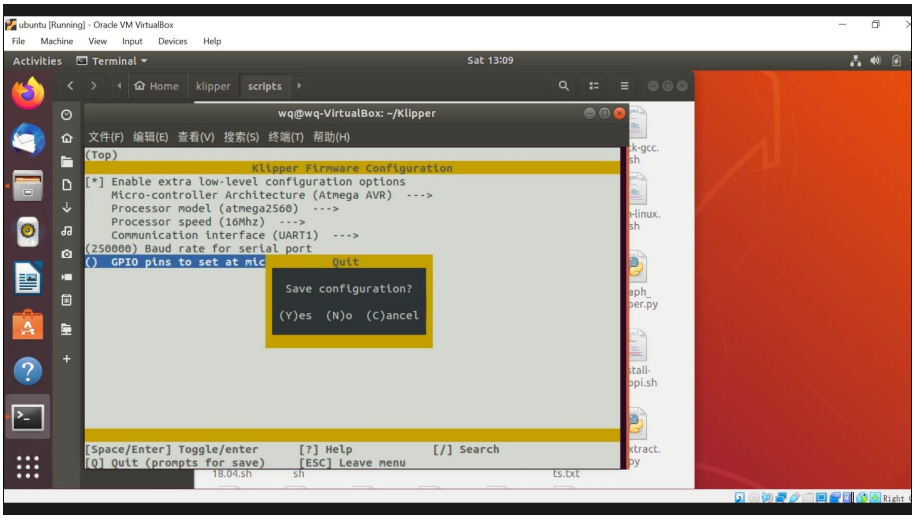
Refer to the previous video to enter the configuration motherboard interface
(Example, please configure it according to the motherboard)
Select the Micro-controller Architecture、Processor model、
Clock Reference、Communication interface

etc. parameters

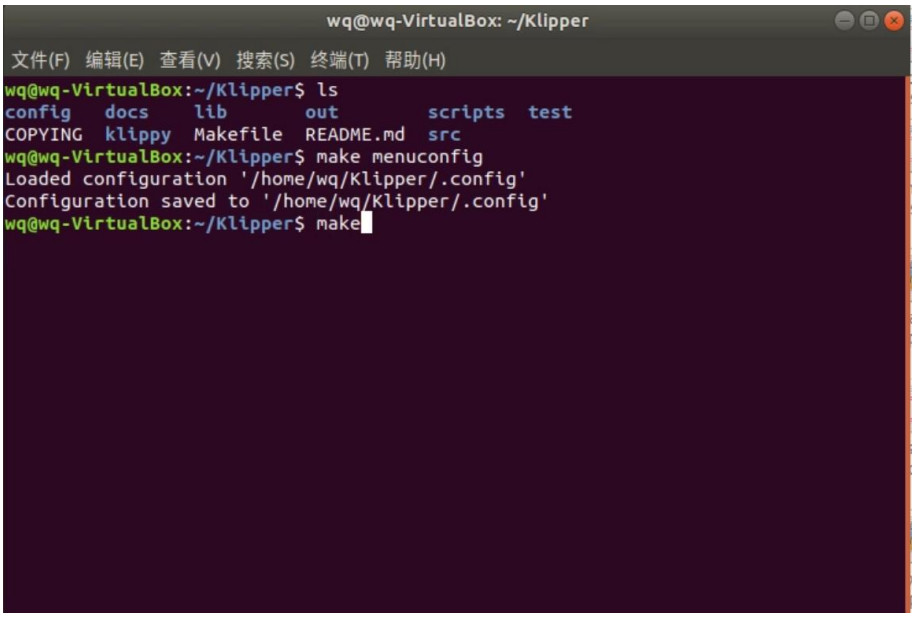


After the parameter configuration is completed, press "Q" to save,

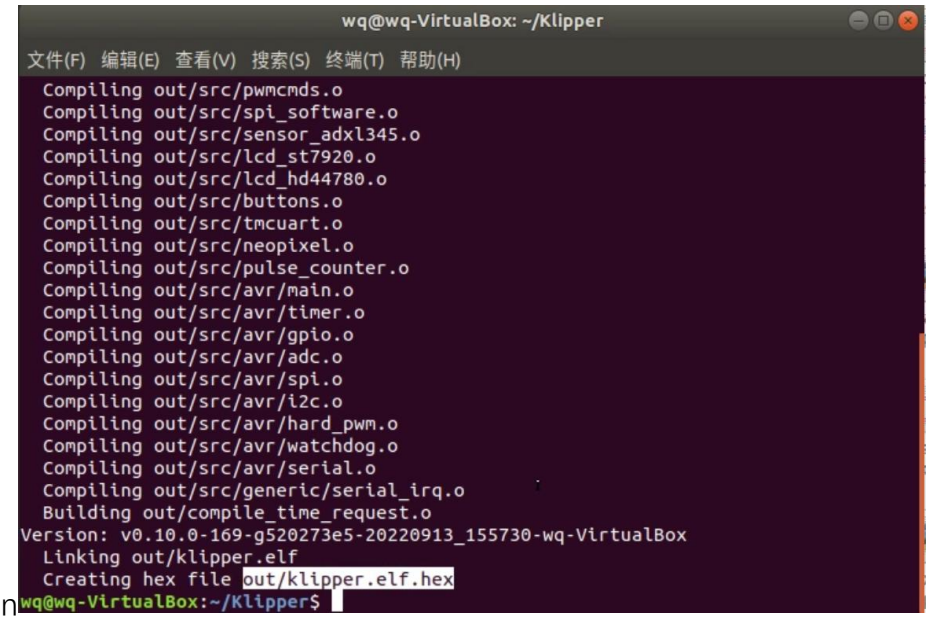
Press "Y" to confirm



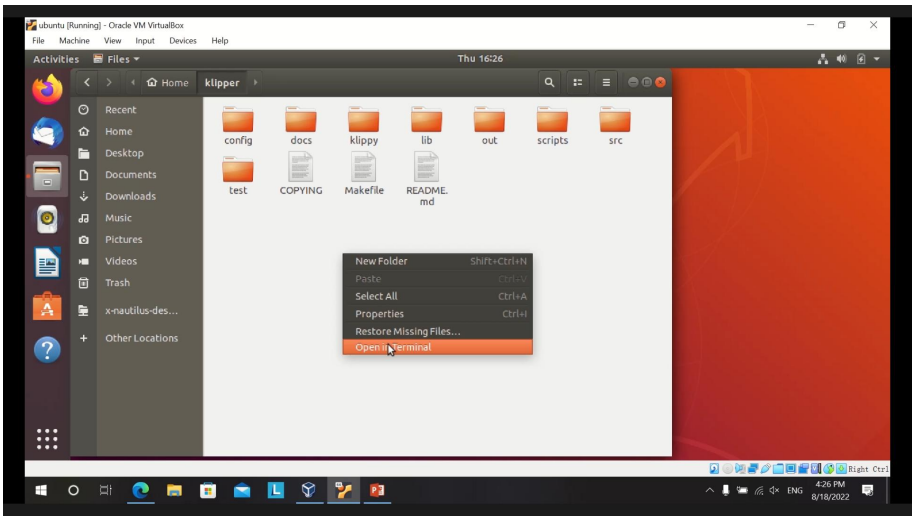
Enter "make" and press Enter（generate firmware）



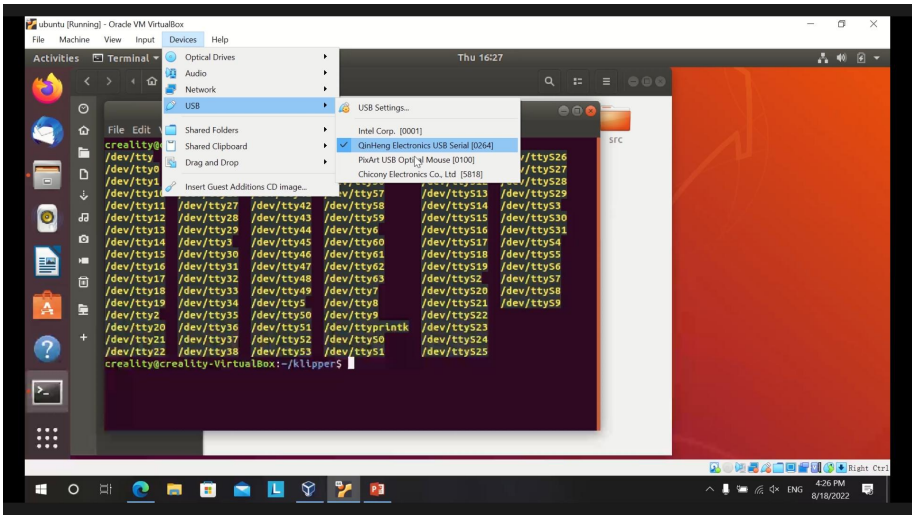
Find the firmware storage

location 

File Manager--Klipper Folder--Right click-open in terminal



Device--USB--Tick the USB option for connection to the printer



Enter "ls /dev/tty*" and press Enter

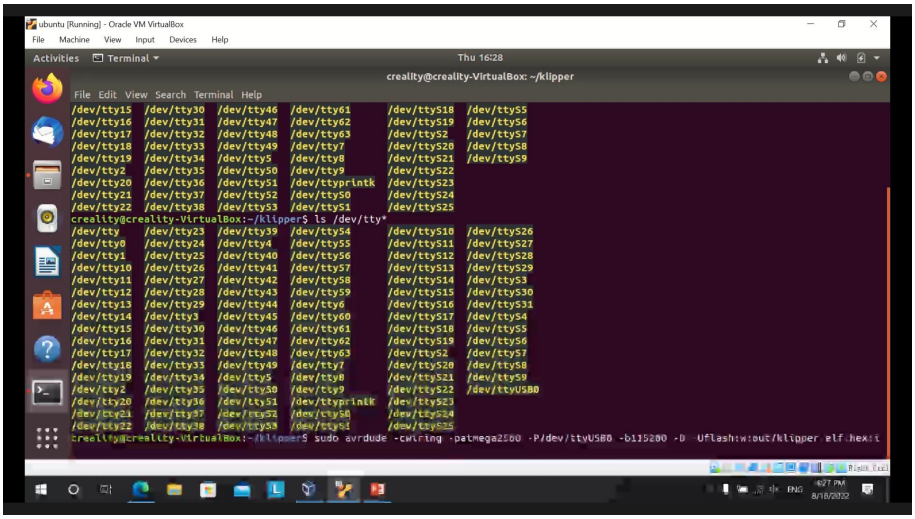
(Confirm that /dev/ttyUSB0 appears in the directory)

Enter “sudo avrdude -cwiring -patmega2560 -P/dev/ttyUSB0 -b115200 -D

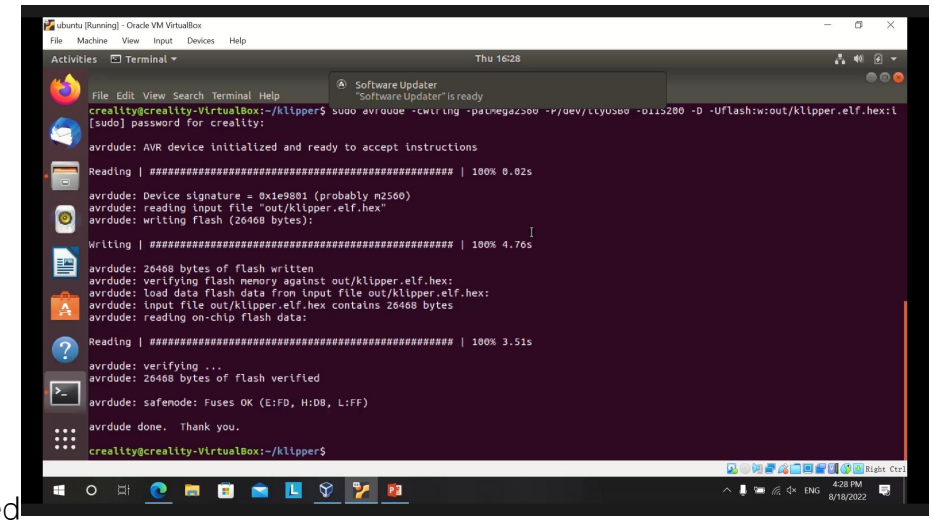
-Uflash:w:out/klipper.elf.hex:i”and press Enter

(Transfer the klipper firmware to the printer for upgrade,

Note the space before the "-" in the command)



Update



completed