

# Virtual Machine (VMware)

This is a generic guide to installing CubeOS on VMware, the host can be an old PC, or a MCU.

## 1. Preparation:

### 1 Download the CubeOS image

Visit this [repo](#) to download the latest image. Please extract the image after downloading.

### 2 Install VMware

Download and install a virtual machine manager, with [VMware Workstation](#) being recommended.


- Have other virtual machine managers? The following steps can theoretically be used as well.
- Unfamiliar with virtual machines and owning a Raspberry Pi? You can choose to install CubeOS on a [Raspberry Pi](#).
- If none of these options are viable, you can purchase an iHost with built-in CubeOS from the SONOFF official website or platforms like Amazon.

### 3 Zigbee Adapter (Optional)


If you need to add Zigbee devices, prepare a Zigbee Dongle. Tested Zigbee Dongles include:

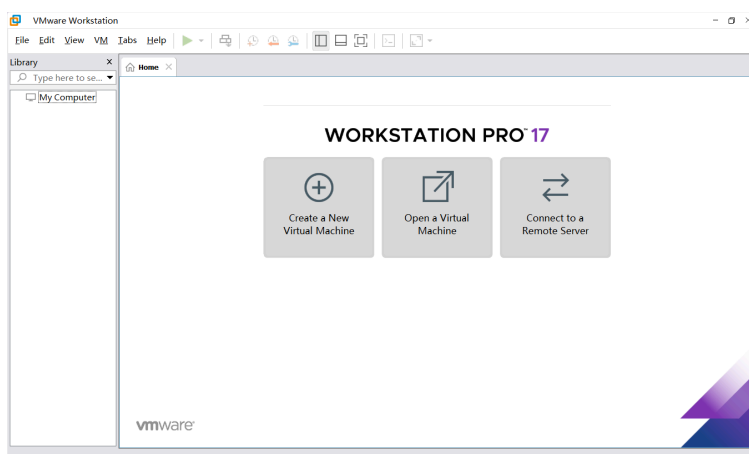
- SONOFF ZBDongle-E(Recommended)
- Easyiot ZB-GW04
- SMLIGHT SLZB-07
- SMLIGHT SLZB-06M

 Visit [How to Flash Dongle Firmware](#) ↗ for more details.

 For more information on Zigbee configurations and compatibility, please refer to this [guide](#).

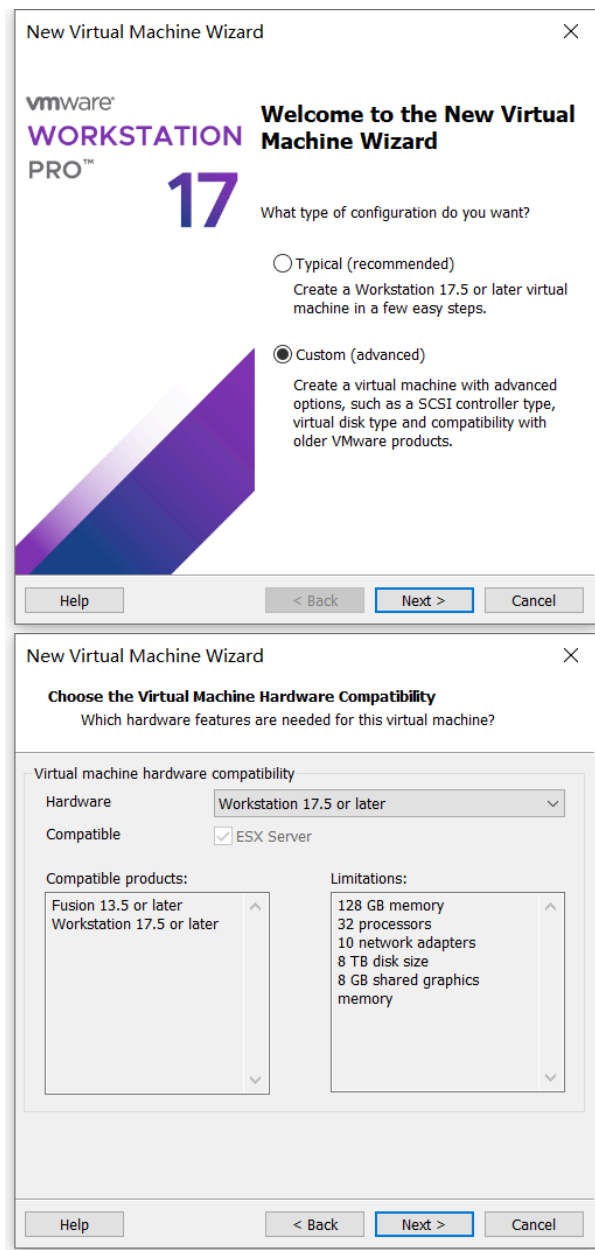
## 2. Create a Virtual Machine

- 1 Launch VMware, Select “Create a New Virtual Machine” .

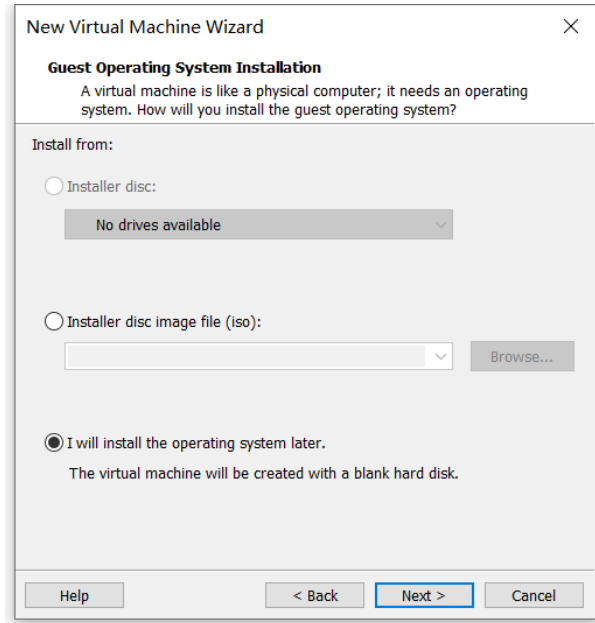


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Choose **Custom**, click **Next**. Hardware-**Workstation 17.5 or later**, click **Next**.

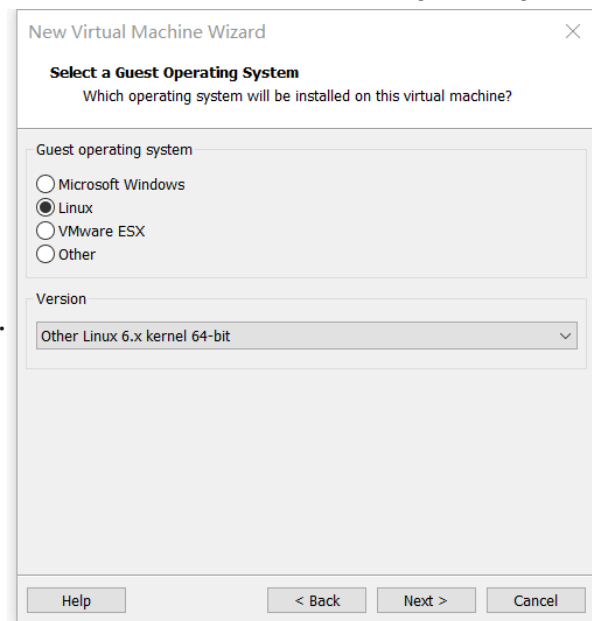


### 3 Choose **I will install the operating system later**, click **Next**.



### 4 Select **Linux > Other Linux 6.x kernel (64-bit)** as the guest operating system type.

system type.



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Name the VM as **CUBE OS** and choose a storage location.

New Virtual Machine Wizard

**Name the Virtual Machine**  
What name would you like to use for this virtual machine?

Virtual machine name:  
CUBE OS

Location:  
C:\Users\coolkit\Documents\Virtual Machines\CUBE OS Browse...

The default location can be changed at Edit > Preferences.

< Back Next > Cancel

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## System Resources:

- **Processors:** 2 cores
- **Memory:** 4096MB (4GB) or more

The image displays two sequential screenshots of the 'New Virtual Machine Wizard' interface.

**Top Screenshot: Processor Configuration**

**Processor Configuration**  
Specify the number of processors for this virtual machine.

**Processors**

Number of processors: 2 (selected in dropdown)

Number of cores per processor: 1 (selected in dropdown)

Total processor cores: 2

Buttons: Help, < Back, Next >, Cancel

**Bottom Screenshot: Memory for the Virtual Machine**

**Memory for the Virtual Machine**  
How much memory would you like to use for this virtual machine?

Specify the amount of memory allocated to this virtual machine. The memory size must be a multiple of 4 MB.

Memory for this virtual machine: 4096 MB (entered in text box)

Memory scale (left): 4 MB, 8 MB, 16 MB, 32 MB, 64 MB, 128 MB, 256 MB, 512 MB, 1 GB, 2 GB, 4 GB, 8 GB, 16 GB, 32 GB, 64 GB, 128 GB

Recommendations:

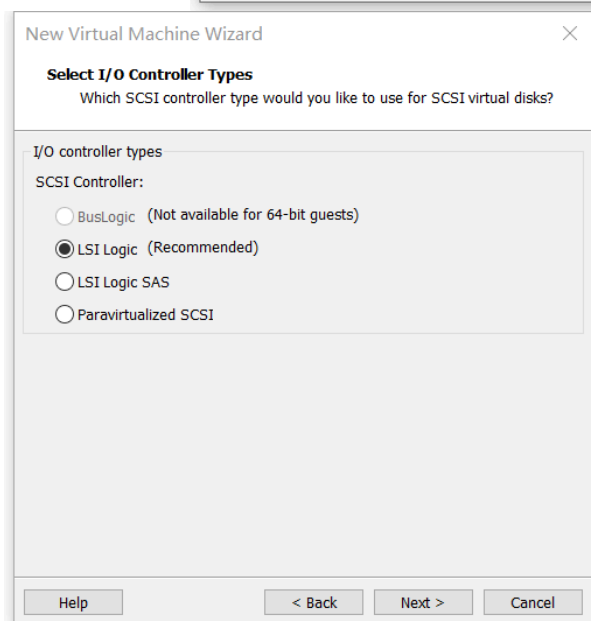
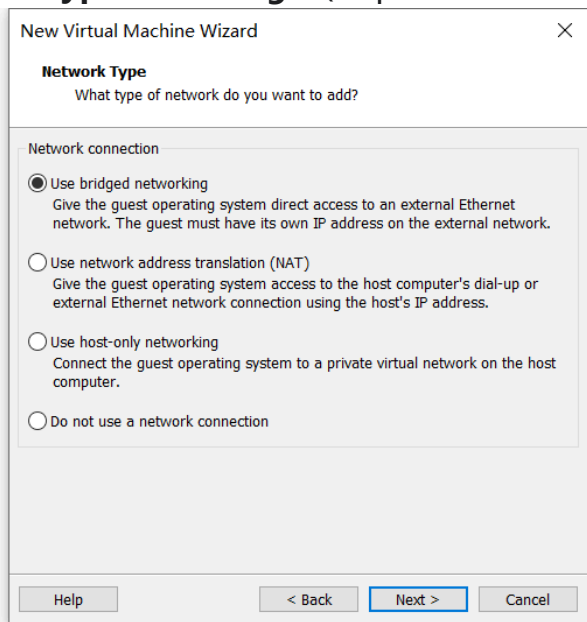
- Maximum recommended memory: 13.0 GB (indicated by a blue arrow pointing to 4 GB)
- Recommended memory: 768 MB (indicated by a green arrow pointing to 512 MB)
- Guest OS recommended minimum: 32 MB (indicated by a yellow arrow pointing to 16 MB)

Buttons: Help, < Back, Next >, Cancel

## 7 Network / I/O Controller Types:

- Set **Network Adapter** to **Bridged** mode (important for LAN access and discovery).
- Set **Controller Type** to **LSI Logic** (required for compatibility with the

virtual disk).



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**Select a Disk Type SCSI(Recommended), Use an existing virtual disk.**

The image displays two sequential screenshots of the 'New Virtual Machine Wizard' dialog box, specifically the 'Select a Disk' steps.

**Top Screenshot: Select a Disk Type**

**Select a Disk Type**  
What kind of disk do you want to create?

Virtual disk type

- ☐ IDE
- ☒ SCSI (Recommended)
- ☐ SATA
- ☐ NVMe

Buttons: Help, < Back, Next >, Cancel

**Bottom Screenshot: Select a Disk**

**Select a Disk**  
Which disk do you want to use?

Disk

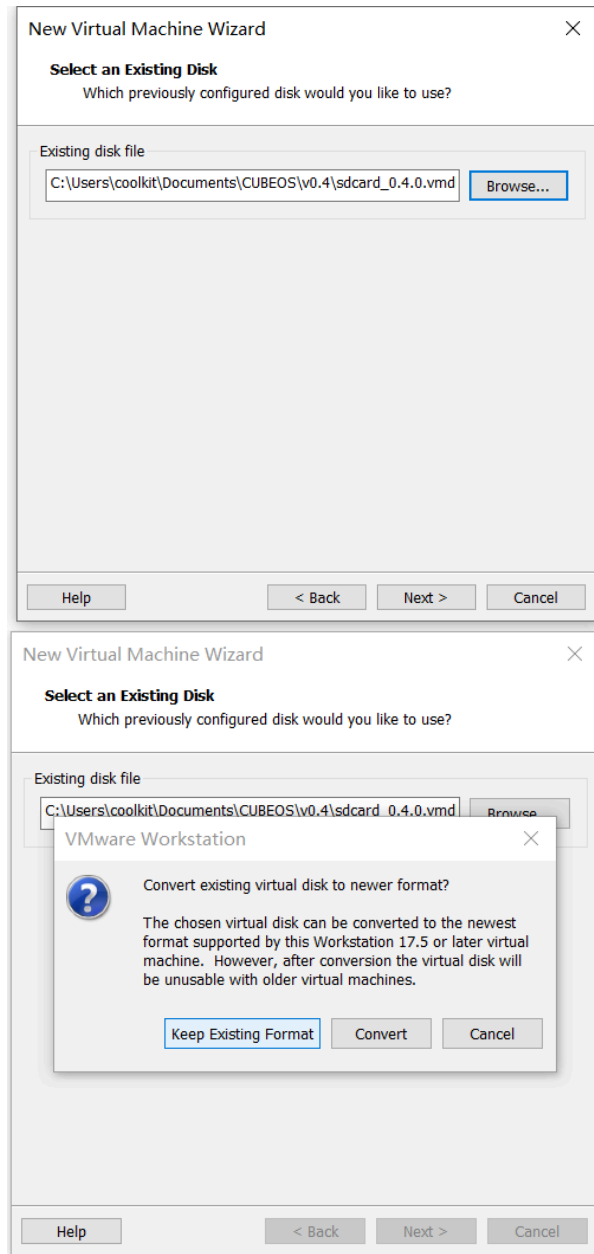
- ☐ Create a new virtual disk  
A virtual disk is composed of one or more files on the host file system, which will appear as a single hard disk to the guest operating system. Virtual disks can easily be copied or moved on the same host or between hosts.
- ☒ Use an existing virtual disk  
Choose this option to reuse a previously configured disk.
- ☐ Use a physical disk (for advanced users)  
Choose this option to give the virtual machine direct access to a local hard disk. Requires administrator privileges.

Buttons: Help, < Back, Next >, Cancel



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Click **Browse**, then select the CUBE OS .vmdk and **Keep Existing Format**.

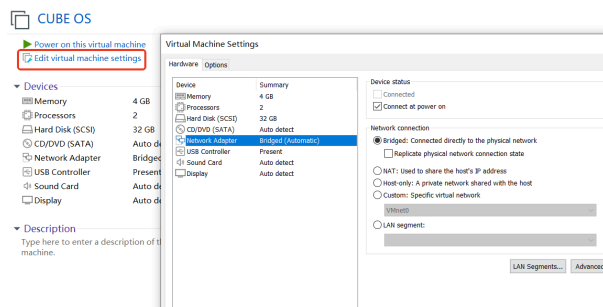


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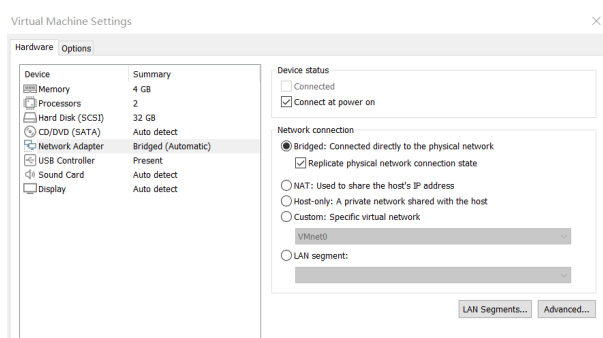
Click "Finish" to create the virtual machine.

### 3. Configure the Virtual Machine

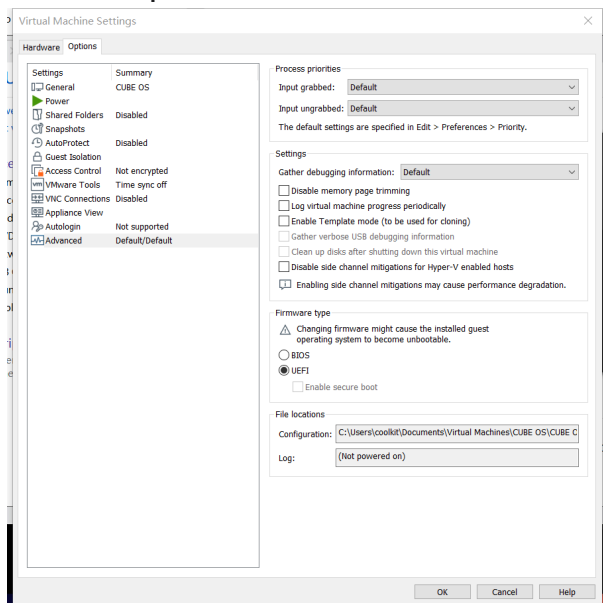
- 1 Select the created virtual machine and click the “Settings”  button.



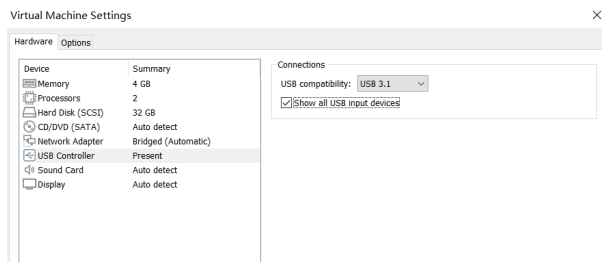
- 2 Under the “Network” tab, confirm the network connection as “**Bridged**” and select **Replicate physical network connection state**.



- 3 Under “Options”-“Advanced” tab, set **Firmware type** to **UEFI**.



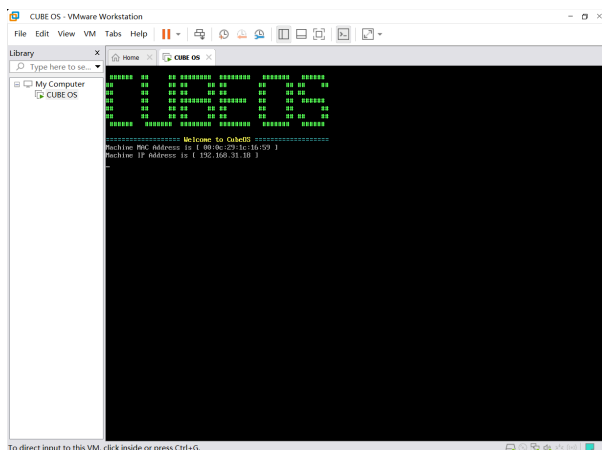
- 4 **Optional:** If using a Zigbee USB dongle, ensure **USB Controller** is added. Under **USB Controller**, enable **Show all USB input devices**.



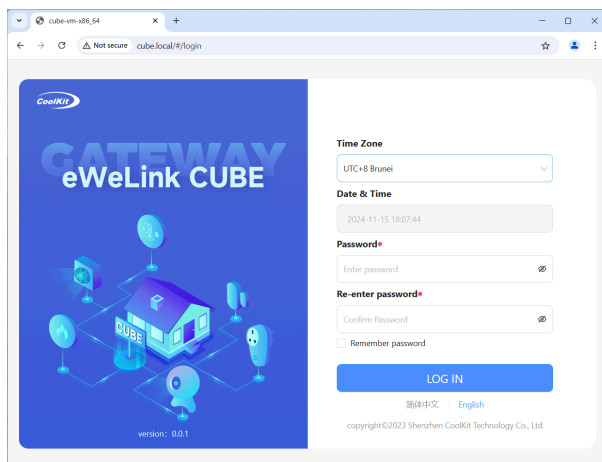
- 5 Click "OK" to save the configuration.

## 4. Boot CubeOS

- 1 Start the virtual machine.
- 2 Wait a few moments for CUBE OS to initialize. Monitor the boot screen until the boot is complete.



- 3 Once completed, you will hear a series of chimes and see the CubeOS' IP displayed on the screen. Use this IP address or [cube.local](http://cube.local) to access the CubeOS Web management page.



- 4 Upon successful access, a short ID can be viewed on the settings page. Subsequently, access the CubeOS Web management page using `cube-{short id}.local`, which is useful for differentiating multiple CubeOS instances on the same local network.

