

# How to build Android TV Box with Raspberry Pi 4

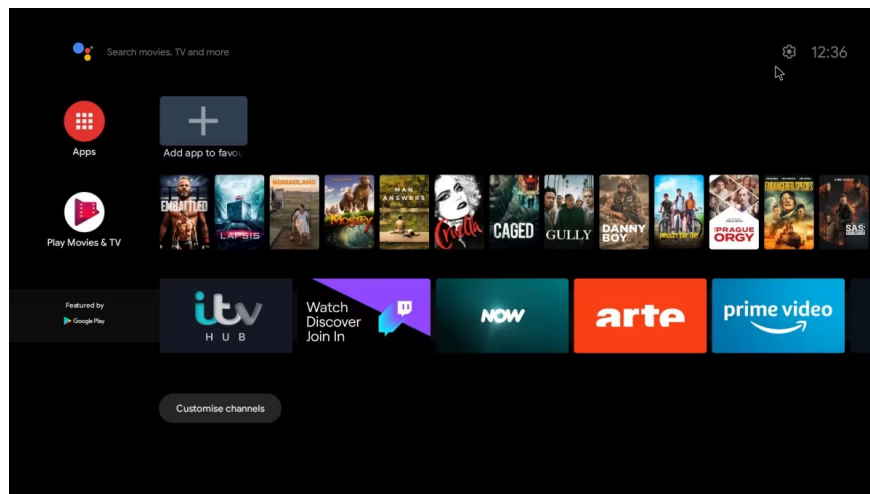
You can build an Android TV box using a Raspberry Pi for a fraction of the cost of buying a new TV and can configure it exactly the way you want.

You don't need to spend thousands of dollars on a new TV to get Android TV. In fact, all you need is a small computer worth about \$50 and a microSD card. You can build an Android TV box using a Raspberry Pi for a fraction of the cost of a new TV, and you can configure it exactly the way you want.

Learn how to install Android TV on Raspberry Pi 4 and 400 computers through the following article!

## Android TV on Raspberry Pi

Before we begin, it is important to understand that the versions of Android and Android TV used in this project are beta versions. As such, they have certain shortcomings that you may not encounter with an actual Android TV device.



The two Raspberry Pi models suitable for running Android TV are:

1. Raspberry Pi 400

You will get the best results with a Raspberry Pi 4 with 8GB of RAM.

If you want to build a smart TV using Raspberry Pi without spending money on a new Android TV, here's what you need to do.

**Note :** It is possible to install Android on the Raspberry Pi 3 or 3B+, but installing apps will slow things down considerably. Additionally, there is no user interface suitable for creating an Android TV-like experience. As such, the Raspberry Pi 4 is the best choice for Android TV.

## Install Android TV on Raspberry Pi 4 or 400

To build Android TV on Raspberry Pi 4, you will need:

1. Raspberry Pi 4 (4GB or 8GB model is best)
2. Good quality microSD card (16GB or more)
3. Raspberry Pi 4 PSU
4. USB keyboard and mouse (or a combination remote control)
5. USB
6. (optional)

### Step 1: Download and install Android TV

To install Android TV on your Raspberry Pi 4, start by downloading the LineageOS 20 Android TV build.

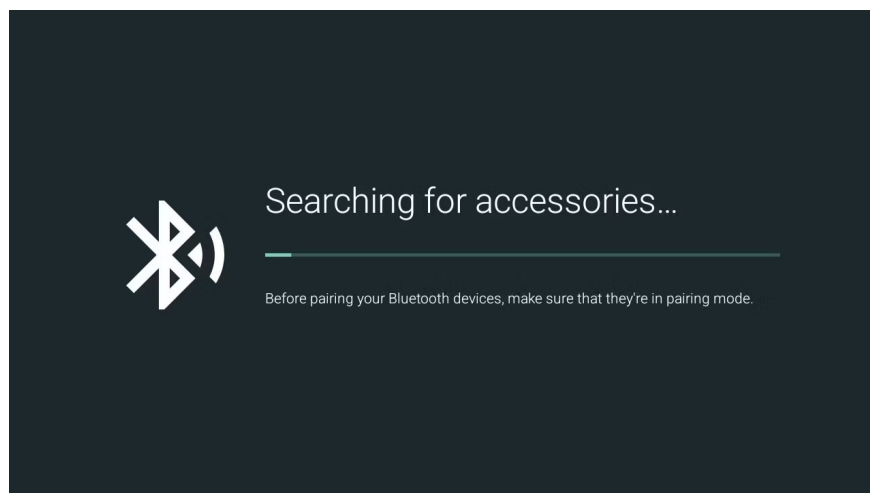
Then you should install LineageOS to your SD card using Etcher.

When finished, eject the SD card, place it in the Raspberry Pi 4 or 400, and boot up your computer.

### Step 2: Pair the Bluetooth controller

If you have a Bluetooth remote (or a spare gamepad), you can use it with your Raspberry Pi Android TV.

After the first boot, you will be prompted to pair the controller, so first make sure it is in pairing mode. Follow the on-screen instructions to pair. Note that you can also use wired and wireless USB controllers with a mouse and/or keyboard.



Once this is done, click **Start** > **Accept** to accept the EULA. Select your location, then if using WiFi, connect to the best network (click **Skip** if you are using Ethernet or want to set up WiFi later). Uncheck the telemetry option (LineageOS Features) then click **Start** to begin using the Android TV environment.

### Step 3: Learn how to use Android TV on Raspberry Pi

Before you start installing any apps, it's a good time to familiarize yourself with the controls. This is an especially smart idea if you're using a keyboard.

The control functions are as follows:

1. F1 = Home
2. F2 = Back
3. F3 = View open applications
4. F4 = Menu
5. F5 = Source
6. F11 = Volume down
7. F12 = Volume up

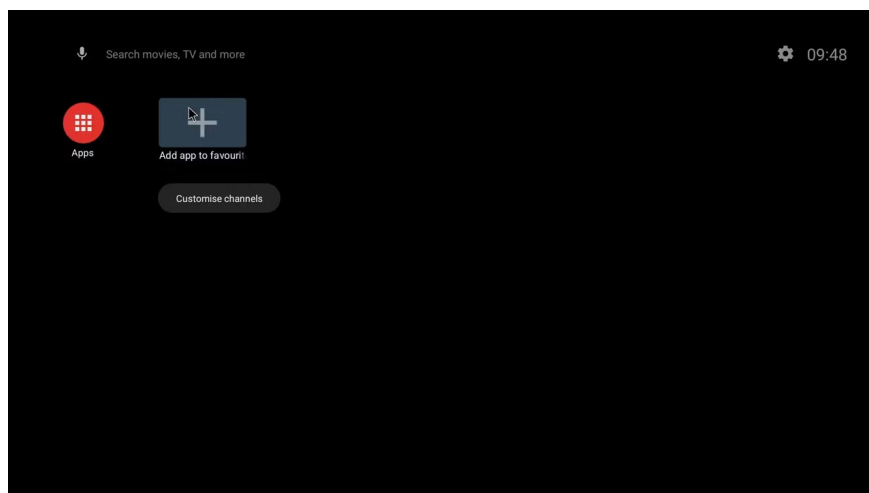
Note that pressing F5 will put the device into standby mode. To turn it off completely, hold F5. Other power options are available in the **Settings** > **System** menu .

### Step 4: Update Android TV

To make sure you're running the latest and most secure version of Android TV, check for updates. Go to **Settings** > **System** > **Updater** . If there's an update available, tap **Update** and wait for the package to download. When it's done, tap **Install** and wait.

**Note** : Use the **Preferences** button to determine how often the system checks for updates.

### Step 5: Install the streaming app



This version of Android TV does not currently support Google Apps. As such, you will need to sideload APK files. APKs are Android installers, the equivalent of EXE files on Windows.

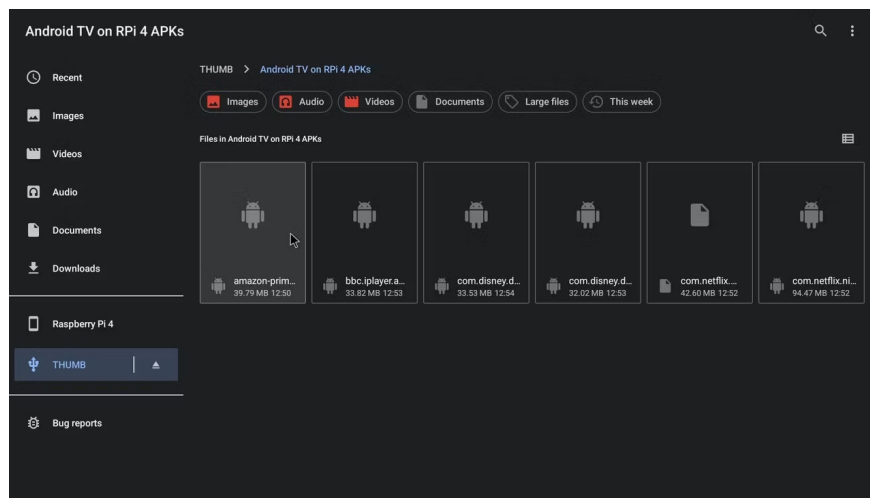
The best way to do this is to download a bunch of suitable apps from a safe APK download site.

Some application suggestions:

1. Browser
2. VLC Player
3. Common media streaming applications
4. VPN

Once you've done this, copy them to a USB storage device. Then take the USB out, connect it to your Raspberry Pi, and open the File Manager app in Android TV. To install the APK:

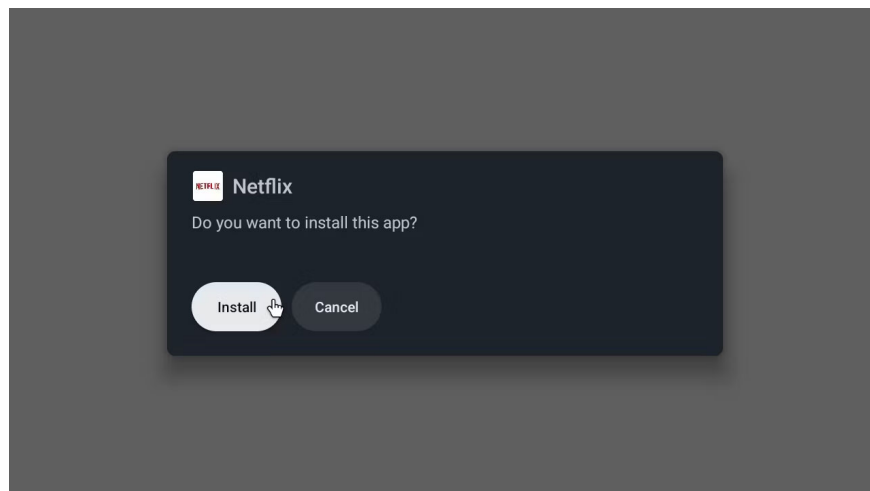
1. Browse to APK files



2. Select a file to install

3. Click **Continue** on the notification.

4. When you want to install the application, click **Install**.



5. Click **Open** to use or **Done** to install another one

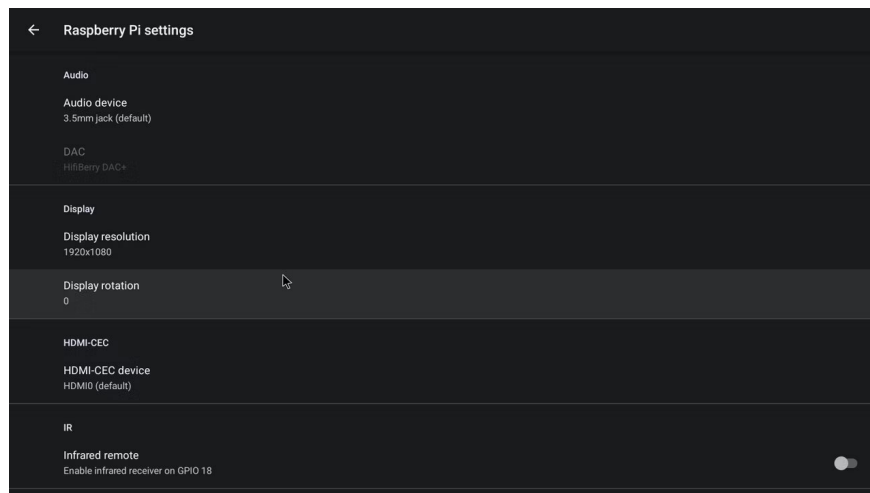
**Note** : Some versions of popular apps may not work. In this case, try older releases.

## Step 6: Restart Raspberry Pi 4 to use Android TV

With Google apps installed, you can start using Android TV. Sign in to your account, download media streamers, or connect your own media to the system.

If you want to get more configurable, this Android TV build for Raspberry Pi 4 has a number of tweaks you can make to the setup process. This includes everything from setting up a hardware power button to configuring SSH. You can also enable IR remote control functionality and send audio over the 3.5mm jack instead of HDMI.

You'll find Raspberry Pi 4 specific options under **Settings > System > Raspberry Pi settings** .



You can find tweaks and troubleshooting tips on the download page at the KostaKANG website and any tweaks can still be done in the **/boot/ partition**.

If you feel that Android TV is not achieving the best results, consider the list of the best Android TV Boxes that **TipsMake.com** has suggested.

Hope you find the right choice for you!

You finished reading the article "**How to build Android TV Box with Raspberry Pi 4**" edited by the [TipsMake](#) team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.