

# Android Flash Tool

[Android Flash Tool](#) allows you to flash an Android build to your device for development and testing. To get started, you need a development machine and an Android device.

## [Minimum requirements to run the flashing tool]

Your development machine must meet these requirements:

- Browser: Any browser supporting [WebUSB](#), such as [Chrome](#) or Edge 79+.
- Platforms:
  - Linux
  - macOS
  - Chrome OS
  - Windows (requires an additional USB driver)

## [Installing Windows drivers]

To work with fastboot and flash devices on a Windows machine, you need a customized USB driver from the Android SDK. For more details, see [Install OEM USB drivers](#) on the Android Developers site.

**Caution:** If you have [Android Debug Bridge \(adb\)](#) installed on your machine, stop the adb service with the command below before proceeding as the service interferes with the flashing process.

```
adb kill-server
```

## [Device requirements]

You can flash a new version of Android to these supported devices:

- [DragonBoard 845c \(db845c\)](#)
- [HiKey 960](#)
- [HiKey](#)
- [Glass Enterprise Edition 2 builds](#)
- Pixel 2 and newer

## [Preparing your device]

Before you can flash a build to your device, you must prepare your device:

1. Enable [Developer options and USB debugging](#).
2. Enable **OEM Unlocking** in the **Developer options** menu. If your bootloader is already unlocked, this option is grayed out with **Bootloader is already unlocked**.
3. If you're having trouble enabling OEM Unlocking, make sure:
  1. Your device is connected to the internet.
  2. Your device has checked in with Google, which may not be the case just because your device recently connected to the internet. To force a check in, enter **\*\*\*CHECKIN\*\*\*** (**\*\*\*2432546\*\*\***) in the Dialer (no SIM required). After entering the number (no need to press call), the text disappears and a success notification appears.

**Note:** Some devices require carrier intervention to be unlocked. Contact your carrier for more details.

## [Flashing your device]

1. Connect your device directly to your development machine (no hubs, adapters, extenders, or monitors).
2. Open [flash.android.com](https://flash.android.com) in a browser on your development machine. It opens to the Welcome page.
3. Allow the flash tool to communicate with your test device through adb by accepting the popup that says **Allow site access to your ADB keys in order to communicate with devices.**
4. Click **Add new device.**
5. Select your device from the list and click **Connect.** This list may not contain the full device name.
6. On your device's screen, select **Always allow from this computer** and click **OK** to accept the USB debugging connection.
7. Select the connected device in your browser.
8. Search for and select your desired build from the list. You can also select options, such as wiping the device or force flashing all partitions.
9. Click **Install** to start the process. The device reboots and enters fastboot mode.
10. After **Flash Complete** appears, disconnect the device from the USB cable.

**Note:** If this is the first time you're flashing this device on this machine, your machine loses the connection to the device and asks you to find it again. The next time you flash the same device on that same machine, you won't see the request to re-find the device. After reconnecting, the flashing resumes and starts downloading the images and performing all the required steps.

### [USB transfer errors]

Sometimes Android devices have trouble communicating through certain USB ports or hubs due to the high throughput of data. To improve reliability:

- Don't use USB hubs. This includes connections through monitors.
- Don't use USB extension cables or adapters if possible.
- Try a different USB port. Rear ports are often more reliable than front ones.
- If you're using a USB C port, try a USB A port instead.

### [Back to latest public build]

If you want to return your Pixel device to the public build you can flash back to the latest factory image and lock your device [here](#).