

# Flippy 101 - TCL Flip Go

\*\*DISCLAIMER\*\*

- I am not an expert. I'm just a guy that wants freedom from his smartphone, enjoys tinkering, and gets a little tunnel-visioned when I find something that interests me.
- I am not responsible for any of the links used below (I just pasted the links I have used but can't guarantee their safety)
- I am not responsible if your device gets bricked or computer gets hacked or if you trip and fall
- This guide only works on the TCL Flip Go that runs a version of AOSP, using this guide on any other model or any other TCL phone (e.g. TCL Flip 2) such as those running KaiOS may result in a hard brick!
- If you follow the steps below, you will find yourself with a baselined device which matches mine almost exactly. However, performing the following steps sets you up to customize your device in virtually any number of combinations.
- All of the below is a combination of other people's hard work, my own trial and error, and luck.
  - <https://www.apps4flip.com/>
  - <https://forums.apps4flip.com/>
  - <https://github.com/neutronscoot/flip2/wiki>

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## Why I Did This

In short, it took me a very very long time to get my TCL Flip Go to the place it is today, and I want to help people avoid the errors I made. I had to read through over 3,000 forum posts. You don't deserve that. I also want to create a record for myself in the event that I drop my phone in a river.

Also, I was an absolute beginner before doing all of this (I still am), and I didn't even understand how to use adb in the slightest. Everyone's instructions, no matter how simple, just weren't simple enough. So the below instructions are hopefully written in a way that if you've never done anything at all like this (but are willing to work hard), you can still follow along.

Time Commitment: from start to finish, I think this should take you 2-3 hours. I recommend fully reading through one section first, then actually following the steps in that section, and then moving to the next section and repeating the process. Understand before you do.

## Setup

- You'll need a computer running Windows
- Download Android Platform Tools [here](#) (scroll down and select Windows).
  - You will use this to operate Android Debugger (ADB).
  - ADB is operated using the command line. Once downloaded, open the Platform Tools folder, click in the path for File Explorer and type "cmd" and hit enter. A command line prompt should open. You will use this command line prompt for all subsequent steps.
- Download Scrcpy [here](#).
- Enable USB/ADB debugging on the phone by typing `***#DEBUG***` (`***#33284#***`). The phone should tell you it's been enabled.
- Enable developer options
  - Plug in your phone, enabling adb debugging on the device if you're prompted (a little selection menu may pop up), and then opening ADB on your computer (see steps above).
  - Type `adb devices` into the terminal and hit enter. A device code should display showing proper connectivity. If an error displays...oops.
  - Type `adb shell settings put global development_settings_enabled 1`
  - The phone should now tell you that developer options are enabled.
- Download and install [mtk drivers](#) on your computer. Restart your computer.
- Download [autoboot](#).
- Download [neutron.img](#) and drop it in the adb folder (the folder named platform-tools with all the random files).
  - Neutronscott created the recovery image file for booting the phone and has a lot of great resources on his [wiki](#) that you will utilize later. Bookmark this page.
- Download [Neutronscott's vMouse](#). You don't need to place it in the platform-tools folder.
- Download this [screen resolution changer](#) to your computer and place it into the platform-tools folder with all the other random files.
- Download this [Accessibility App](#) to your computer and place it in the platform-tools folder.
- Download [Button Mapper](#) to your computer and place in the platform-tools folder.
- I recommend buying a micro SDcard, removing the back of the phone, and installing the card.

Congrats! You should be ready to completely customize your TCL FLip 2!

## Flashing your TCL Flip Go

1. Run autoboot (see above).
2. Plug in your turned off phone. Your phone should now say fastboot mode.
3. Open adb and type in the command `fastboot flashing unlock` and on your phone press volume up to allow flashing unlock.
4. Type in the following command to adb `fastboot flash boot neutron.img`
5. Turn your phone on and using the phone's keypad, type `*##*217703##*`. Magisk should be in the list of apps. Select it and download the full version once prompted. Restart your phone. (If Magisk doesn't show up, reboot your phone and check again).
6. You should be good to go!

## Change your Launcher (Do this first)

- The "launcher" is what your phone uses to show apps. The phone's default launcher is accessed by pressing the "OK" button.
- If you don't change the launcher, apps you install will not show up in the phone's default launcher. It sucks.
- Many people use NovaLauncher, but I don't like this one. Instead, I use ListLauncher. It's clean, simple, and I have never had any issues with it.
- This will be the first apk you install. Download and install on your phone by following the next section's steps.
- Once you install the new launcher, on your phone, go to to Settings → Phone Settings → Key Shortcuts and set one of the keys to ListLauncher (I use the "up" arrow).

## Change the Screen Resolution (do this second)

- This is a game-changer for using APKs which aren't optimized for a flip phone (basically all APKs are made for a larger touchscreen phone)
- Download this [screen resolution changer](#) to your computer and place it into the platform-tools folder with all the other random files.
- Follow the steps below for side-loading APKs to put the app on your phone.
- In the app, input a resolution of **321x428** in the app (take care to put 321 width **first** and then 428 - reversing it can break your phone which then needs to be rescued by setting a valid screen resolution with adb..this is tedious)
- The app will request permissions which will allow the phone to change the resolution at any point you choose.

- A notification will populate in your notifications center (accessed by pushing the top-left button). This can be selected and it will automatically toggle back and forth between the native resolution and this new one you created.
- When you restart your phone (or it dies) the notification may disappear, but it can be added to your notifications center again simply by opening the app on your phone
- A cool feature of this app is that your phone will revert to whatever previous resolution was engaged on the phone during its use prior to a restart or battery depletion.
- I keep my phone at the 321x428 resolution at all times. It's a much better experience, and I find no need to change back to the native resolution.

## Side-loading APKs (also known as apps)

1. Plug in your turned on phone to your computer.
2. Open adb and run the command `adb devices` to ensure your phone is recognized. You can forego this in the future if you know it's connected.
3. On your computer, search for whatever app you want on your device (Ex. "ListLauncher apk download"). Find a trustworthy site (good luck) and download the most recent APK version available to your computer. Drop the .apk file into your platform-tools folder. I typically change the name from whatever long name is the default. This will make the next step easier.
4. In adb, type `adb install "apk-name.apk"`. You will keep the "" in the previous command but be sure to type the .apk name **exactly** as it appears (Ex. "ListLauncher.apk").
5. In adb, type `adb reboot`. Your phone should automatically reboot.
6. When your device restarts, open your launcher, and you should see the new app listed. From here you can open the app and login/use it/whatever.
7. Another way to check if the new apk (or "package") is on your device is to type the following into adb: `adb shell pm list packages`. Then just scroll until you find the name of your apk.
8. "But Spotify requires a touchscreen...how do I login to the app without being able to touch floating buttons?" Great question. See the next steps regarding the use of Scrcpy

## Use Scrcpy for Touchscreen Apps

- Some apps are only made for touchscreen phones and require initialization (logging in/setting up) using the Scrcpy computer app
- This app allows you to control your phone using your computer mouse and keyboard which is extremely helpful.
- 1. Download [Scrcpy](#) to your computer. This does not need to be placed in the platform-tools folder to work. Extract the folder.
- 2. Plug in your turned on phone to your computer. Leave it physically open next to you.
- 3. On your computer, open the file called "Scrcpy" inside the extracted folder and after a few seconds it should open a screen on your computer mirroring your flip phone. You can still operate your phone using the physical interface, and this process will require a combination of both.
- 4. Spotify Example:
  - Using your phone, open ListLauncher and then select the Spotify app. It will open and prompt you to login.
  - Now on your computer, just use your mouse to click the correct buttons and login.
  - You should now be able to use Spotify and should never need to login again (at least I haven't).
  - "But navigating on Spotify using the directional keypad sucks...I can't select most items." Great point. See the next steps for setting up a button mapper to turn on the phone's native mouse.

## Mapping Buttons to Engage Your Phone's Mouse

- There are two mice your phone can utilize
  1. The browser's mouse can be activated outside of using the browser. This is easy to set up but has its limitations (if you have ever used the phone's browser, it has clear upper and lower limits, so you're out of luck with certain apps like Spotify because you can't move the mouse low enough on the screen to select the "search" button. But this mouse is great for almost all situations.
  2. You can download a third-party mouse and map it using adb.
- I recommend you set up both mice and primarily utilize the browser's mouse until you *really* need the third-party-downloaded mouse.
- Setting Up Button Mapper and Browser Mouse
  1. Download this [Accessibility App](#) to your computer and place it in the platform-tools folder.
  2. Download [Button Mapper](#) to your computer and place in the platform-tools folder.

3. Using adb, add the apps to your phone.
4. Reboot your phone using adb
5. Once rebooted, type the following command into adb:
  - `pm grant com.android.cts.accessibility android.permission.WRITE_SECURE_SETTINGS`
  - It's formatted strangely above, but it's because of my many bullet points. Just copy and paste it. There's a space after accessibility.
6. On your phone, open the Accessibility App and selected the "Accessibility Service" option to engage the app
7. Within the Accessibility App, also selected "Button Mapper" which should automatically show up listed in this app.
8. Now open Button Mapper on your phone and map two buttons to activate and deactivate your phone's mouse. I mapped a long pressed *volume-up* to active the mouse and a long pressed *volume-down* to deactivate the mouse
9. In the Button Mapper App, select Volume Buttons then under Volume Up select Long Press and using Scrcpy on your computer, type in the following phone command `settings put system keyboard_pointer_enable 1`. For Volume Down select Long Press and type the following phone command `settings put system keyboard_pointer_enable 0`.
10. Now give it a try on your phone by long pressing the volume-up button! Your phone should give a quick vibrate and you can now use the keypad to move the mouse around. Once finished, long press the volume-down button.
  - Note: While using the mouse, your directional keypad is overwritten and can't be used for anything other than moving the mouse.

## Using a Third-Party Mouse

- As I said before, you'll need this for some specific applications that require the selecting of areas outside the range of the phone's built-in mouse.
- Download [Neutronscott's vMouse](#). Put this zip file somewhere on your computer, but it doesn't have to be in the platform-tools folder. I put my platform-tools folder inside of a folder called "Flip Phone," and this vMouse .zip is inside that Flip Phone folder.
- Copy the exact path to your vMouse.zip file. This can be done by right-clicking in the File Explorer's path and copying everything there.
- Oddly enough, the phone's internal storage is called sdcard (not to be confused with an external sdcard if you have one)
- Using adb, type the following command: `adb push computer-path storage/sdcard/Download` and hit enter. The highlighted portions need

to match whatever is correct for your folder names. The file should now be on your phone's internal storage. You can check this by navigating to the phone's File Explorer and checking the Download folder.

- Now open Magisk on your phone, select "Modules" at the bottom right, and select "install from storage." Navigate to your phone's Download folder and select the vMouse file. Follow the prompts to engage it.
- To activate, long press the Favorites button (big star on the keypad). To deactivate, long press the Favorites button again. Once activated, volume-up and volume-down increases and decreases the speed of the mouse respectively.
- Move the mouse using the keypad.
- Note: The mouse cursor may stay on the screen for a bit once you deactivate it, but it should disappear in a few seconds.

## Enabling Voice to Text

1. Download the apps4flip voice access app [here](#).
2. Install it on your phone using adb
3. Reboot your phone using adb
4. Type the following commands into adb one by one, each followed by hitting enter (ignore all errors):
  - a. `am startservice com.android.cts.apps.accessibility.voiceaccess/com.google.android.apps.accessibility.voiceaccess.JustSpeakService`
  - b. `settings put secure enabled_accessibility_services com.android.cts.apps.accessibility.voiceaccess/com.google.android.apps.accessibility.voiceaccess.JustSpeakService`
  - c. `settings put secure accessibility_enabled 1`
  - d. `pm uninstall -k --user 0 com.lge.voicecommand``
5. Open the voice access app on your phone. You will be prompted to enable voice access on your phone, and when you try to do so, the app will likely crash
6. Open the accessibility app you previously installed, and select the box next to the new option "voice access."
7. The voice access app should now walk you through a tutorial.
8. You should also have a new button on your screen at all times which you can click using your virtual mouse to enable voice access.

YOU DID IT!! Congrats! Enjoy your new phone and experiment as much as possible to make it your own.