

<https://www.drive2.ru/l/599889696897655748/?fbclid=IwAR3PJ7pNJ1SpXjF3ufUm2kdpbPUro1Tfpi3eQG46tswWsmEC6NfXyH2u1lc>

We start looking for how to get to the operating system in order to install third-party applications. Having experience of similar work on the previous car (Geely Coolray), I decided to proceed in a similar way.

Well, let's go. I will tell you in detail what and how I did.

First, we need to get into the engineering menu. On the main screen (on any of the shells) in the lower left corner, press your left hand on the screen and hold with the other hand quickly "tap" several times (about 15-20 approximately) in the same corner of the screen, only on the right.

We get into the engineering menu, it is in English. The item "Launch Debug App" is required

Then "Setting"

The settings menu of Android 8.1 itself opens. Find the android version and build number.

15 times quickly press on the screen, where the build number, we get the message "Congratulations, you have become a developer." Another menu item "For Developers" appears

In the submenu of the general settings of the android "USB Role" set the USB mode to USB Device (there was Host by default)

Then I took a USB flash drive (in Fat32 format), wrote down the APK file of the manager, inserted it into the USB port under the wireless charging tunnel. I went to the "Storage" item in the same android settings of the engineering menu, a flash drive was displayed there, went into its contents, found the APK file of the file manager, which recorded and started the installation of the application. The application was installed in just half a minute. Where is his label now? And here - if you swipe up from the main screen - application shortcuts will appear (like on phones). What we got. Having installed the file manager, we can now install third-party applications from a flash drive through it, view the contents of the internal memory of the GU and a number of other actions (Attention!

It is better not to climb into the internal memory of the device and not delete, move or rename anything there without a clear knowledge of what you are doing . - you can get a "brick", instead of GU later).

Further in the search bar settings.

we drive in "installation from unknown sources" by search, we find this option and enable it (by default, for security reasons, installation from unknown sources is disabled). Now we can start the installation of applications from the file manager by going directly to the contents of the flash drive.

What did I do next. Then I installed the "Back Button" application, it is in the form of a small button on the screen, the size, color and shape can be set at your discretion. In the settings of this program, I set it to Single Press (i.e. one click on the button) - Back, i.e. action "back", will work in any program, it is very convenient, tk. we do not have a back button in many applications. Activate Long Press - i.e. long press, there you can program any action according to your desire, I chose the launch program for myself (as it was called) and from the list I chose "Engineer Mode" for myself from the list of programs, ie a long press on this button will call up the engineering menu so that you do not have to hold and press two dots on the screen again from the main screen with both hands. In the settings, you can change the location of the button on the screen. All applications that I used here at the end of the recording will send a link to the Yandex disk for download.

Further. The GU has a built-in Wi-Fi module, but you can't get to it without an engineering menu. I installed the Wi-Fi manager program from a USB flash drive (also through the file manager that I installed earlier). This program, when launched, searches for Wi-Fi networks and can connect to them, i.e. we turn on the distribution of the Internet from a smartphone, launch this program, connect and get the Internet on our GU. In the settings, it will be possible to enable automatic connection to a specific network as soon as it becomes available. The indication of the connected Internet via wi-fi will appear on the top line of the status, next to all the icons.

I also installed the Set Orientation program - in order to "keep" the screen orientation always horizontal, tk. I know from old memory that some applications may try to rotate the screen vertically (remember from Geely Coolray).

Now Navigation. There is a nuance here. The Yandex Navigator assemblies that I installed on my previous car were not installed, a message popped up - the application was not installed. It was necessary to find out on what architecture the processor on the GU works for us, if it does not coincide with the application, then the application will not be installed. In general, I found out that we have an "x86" processor architecture, i.e. applications that are compatible with this architecture are required.

For navigation to work normally in a car, a GPS signal receiver is naturally required. I did not know at all whether we had it or not, if not, I would have to take an external GPS antenna and somehow connect it to the GU. I remember how one of the ways to find out if we have a GPS internal chip is to install the GNSS commander program. Having started it, you can select "GPS internal" as a source of GPS, look at the map of satellites and at the data transmitted by the chip, if there is one of course. Installed GNSS. chose the signal - GPS internal and checked.

Wonderful! There is a GPS chip in the car, which transmits geodata to the GU. Now you can install Yandex Navigator. I chose version 4.71 for the x86 architecture, installed it. With the Internet connected, I downloaded a map of my area, everything works! Alice is called both by voice and by a button, the speech recognizes, the address is found, the route is built. Fine! The card rotates smoothly, nothing slows down. By the way, if the navigation is minimized, a message pops up periodically on the GU "Left" "Right", plus it leads in a voice even if you switch to the music on the screen. Very comfortably.

What can I say in the end? I'm happy, everything works as it should. There are plans to put ViperFX to drastically improve the sound, but it requires Root rights. I don't know how to get Root on our device, I can find a way. There was just an "unplowed field" with the ability to install various applications from a USB flash drive.

Online Radio, YouTube, Online movies, much more ...

Again, I repeat, everything that you install yourself is at your own peril and risk. But for ordinary applications that do not touch system files, there should be no problems. The main thing is to support the "x86" processor architecture and android .8.1.0. In any case, you can always return everything to the factory state (if you do not screw up the GU, of course) - do a reset to the factory settings, and everything will be like from the factory.

Used programs:

BackButton - [disk.yandex.ru/d/pMo0luQr6z79sA](https://disk.yandex.ru/d/pMo0luQr6z79sA)  
File Manager- [disk.yandex.ru/d/17tJ\\_k805DBxZw](https://disk.yandex.ru/d/17tJ_k805DBxZw)  
Wi-fi Manager- [disk.yandex.ru/d/anEq7E6Xn1VyQ](https://disk.yandex.ru/d/anEq7E6Xn1VyQ)  
Set Orientation - [disk.yandex.ru/d/ZNITgX3GvD0jRg](https://disk.yandex.ru/d/ZNITgX3GvD0jRg)  
Yandex Navigator 4.71 - [disk.yandex.ru/d/8kuOaTKlXrp7vg](https://disk.yandex.ru/d/8kuOaTKlXrp7vg)

For those who have read to the end - the full video, from entering the engineer and activating Wi-Fi to installing Yandex Navigator with settings -

UPD. 10/06/2021: How to remove installed applications? Already several people have asked, it is necessary to clarify. In general, there are several ways: 1) go to the engineering menu, select Launch Debug Settings - Settings - Applications, find the application there (installed by the user and press the "uninstall" button, 2) or, if the File Manager was installed, wipe the shutter from the main screen from bottom to top, open the "File Manager", in the "Programs" list, select the one you want to delete, hold down on its name and then at the bottom of the screen on "delete". Here is a video for an example -

Good luck to everyone on the road! Peace for everyone!