

Android based CarPC

it's been a long time since i last had a car pc in my car.. but being disappointed with the standard car stereo that gm put in the 2007 suburban (with sat nav) i really feel the urge to try once more :) .. only now it won't run windows or linux, now i want it to run android preferably with tomtom as my nav software and among other things a dab plus tuner. this is so far only a collection of links and resources where i collect information eventually leading to building a carpc based on android.

- [android hotkeys](#)
- [joycon ex](#), translates resistance output steering wheel controls to keyboard keystrokes
- [PAC OS-4 & PAC SWI-RC combo](#) found on ebay using "radio replacement adapter gm" as search keyword. one will retain the indicator sound as well as all chimes and will allow to connect other audio sources than the original radio and the other translates the 29bit gmlan commands from the steering wheel controls to a resistance output steering wheel control signal
- [double din radio mount](#) for the suburban
- [double din lilliput touchscreen with hdmi input](#) be aware there might be [issues with the touchscreen](#) being inverted on android!
- in case the above issue is unresolvable, there is [another touchscreen controller](#) that might work
- [ioio](#) io module with android api. Connects to usb port hand has loads of analogue and digital input and output ports. Could be used to control stuff in the car or monitor things like the ignition switch.
- [nice overview over the mk802, ug802 and mk808 android tv sticks](#)
- keep screen on (do not sleep) while charging: settings → developer → stay awake
 - enable dev. menu: settings→about tablet→ click 7 times or so on revision number (countdown appears afer a few clicks)
- auto power on even when turned completely off as soon as ac power is connected - this makes the power button obsolete in an in-car installation where you have power to the device as soon as the ignition is turned on: ([source](#))\\(in order to run fastboot you need to boot your device into the bootloader first! (power + vol down on the nexus 7)

```
fastboot getvar all
(bootloader) product: herring
(bootloader) version-hardware: REV 51
(bootloader) version-baseband: I9020XXKB1
(bootloader) version-bootloader: I9020XXKA3
(bootloader) secure: yes
(bootloader) unlocked: yes
(bootloader) off-mode-charge: 1
all:
finished. total time: 0.004s
```

change off-mode-charge setting (if it was not listed before, try to set it anyway, it might still work, did so on my nexus 7 with CWM)

```
fastboot oem off-mode-charge 0
```

- [Tablet Talk](#) seems to be a nice app to control your phone from your android tablet

complete units

there are also a few complete units out there, but they all seem to have alot of proprietary hardware embedded (like the gps receiver, radio integration etc.) and run an old android version (2.2 and 2.3) without a chance of an update any time soon because of the proprietary hardware and therefore the lack of kernel module sourcecode.. anyhow, they would probably be cheaper and easier to install. things that keep me from buying such a unit

1. first and far most: more and more apps are being discontinued for android 2.x as is TomTom, my favourite navigation app. therefore alone, android 2.x drive devices became a no-go. expect more apps to disappear from the market on your 2.x devices any time soon..
 2. dab plus support: it is probably not possible to use the aux in and run a different app at the same time, so connecting the above mentioned dab plus receiver might not be possible
 3. the unit will shut down completely when the engine is turned off and will boot when the engine is started -> either no resume of the last state or only a partial resume is possible when using the built-in apps.. but continuing the audiobook where it has been left off when i start the engine is certainly not going to work without user intervention each time. the same is true for webradio, dab plus and subsonic audio streaming as well as for programmed destinations in the tomtom app i am almost certain.. in a custom built unit i would supply a little battery that keeps the system running for a few days and only shuts down when the car is standing around for longer.. by then it will not be necessary to resume anyway.
- [Ca-Fi unit, sold around \\$400 new on ebay unbranded](#)
 - [otto navi k1 etc. review here](#)

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