

# Devices and Open Hardware

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- [Firmware Modding Your Vintage Nokia Handset](#) [2]

These days we're spoiled for choice when it comes to smartphone software, especially games. Official repositories for the leading handsets feature hundreds of thousands of games, and sideloading adds infinite possibilities. If you were lucky enough to be sporting a Nokia handset in the late 1990s, you probably had all of three games to choose from (and only one that was actually fun). [Janus Cycle] explores the steps needed to firmware mod your vintage Nokia phone, and how to expand on that paltry games library.

Enthusiasts have been modding their Nokia handsets since the 2000s, and the tools required now are the same as they were then. The Nokia 5110 and 6110 (as featured in the video below) use a proprietary cable and connector for communicating with PCs and other devices. Nokia's official serial cable already opens up many possibilities for handset tinkering, including access to RAM and toggling Monitor Mode. This cable interfaces solely with the phone's fast FBUS protocol, however firmware flashing takes place using the slower MBUS protocol over a single wire bi-directional pin.

- [GLaDOS Voice Assistant Passive-Aggressively Automates Home](#) [3]

Using open source designs from fellow YouTube creator [Mr. Volt], [nerdaxic] 3d printed as much of the GLaDOS animatronic model as he was able to, and implemented much of the same hardware to make it work. [nerdaxic] put more Open Source Software to use and has created a functional but somewhat limited home AI that can manage his home automation, give the weather, and tell jokes among other things. GLaDOS doesn't fail to deliver some great one liners inspired by the original Portal games while heeding [nerdaxic]'s commands, either.

- [UNO-420 PoE-powered data sensing gateway Certified on Ubuntu 20.04 LTS](#) [4]

Advantech, a leading provider of intelligent IoT systems and automation technology, is pleased to announce that its UNO-420 data gateway is certified on Ubuntu 20.04 LTS and Ubuntu Core 20. UNO-420 is a PoE-powered data sensing gateway powered by an Intel Atom E3815 processor, characterized by its high compatibility with diverse data acquisition devices and Power-over-Ethernet (PoE) permitting local data processing and cloud connectivity. By certifying Advantech's UNO-420 for Ubuntu 20.04, Canonical, the publisher of Ubuntu, guarantees 5-years of maintenance updates and 5-years of extended security maintenance(ESM) software update support that give enterprises a stable and secure IoT platform for device management and service reliability.

- [Vektor Kollektor Inspector](#) [5]

The build started with an HP7475A pen plotter from the 80s, one that was DOA (or was fried during initial testing). [Niklas] and [Kati] kept the mechanism but rebuilt the controls allowing for easy integration with an Arduino Nano and to be powered with a motorcycle battery.

## [Hardware](#)

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**Source URL:** <http://www.tuxmachines.org/node/155611>

### **Links:**

[1] <http://www.tuxmachines.org/taxonomy/term/39>

[2] <https://hackaday.com/2021/09/13/firmware-modding-your-vintage-nokia-handset/>

[3] <https://hackaday.com/2021/09/13/glados-voice-assistant-passive-aggressively-automates-home/>

[4] <https://www.designworldonline.com/uno-420-poe-powered-data-sensing-gateway-ccertified-on-ubuntu-20-04-lts/>

[5] <https://hackaday.com/2021/09/13/vektor-kollektor-inspector/>