

READ ME FIRST — the Generator's microSD Card

This card belongs in the **ESP32 Four Channel Generator**. The Generator reads its programs from this card every time it starts, and it will not run without it.

Leave these files as they are

- **protocols-0.txt** — the program the Generator loads every time it starts.
- **protocols-98.txt and protocols-99.txt** — spare copies of protocols-0.txt. If protocols-0.txt is ever damaged, the Generator repairs it from these by itself. Keep them.
- **All the protocols-nn.txt files stay in the top level of the card**, not in a folder, and keep their exact names, protocols-0.txt to protocols-99.txt.

The Generator ignores everything else on the card, so the folders below are safe to open, read and copy.

What's on this card

Where	What it holds	Who it's for
Top level	protocols-0.txt to protocols-99.txt, the programs the Generator plays. wifidataX.txt, a template for WiFi settings.	Everyone
Manual	The Generator PWM Manual in four formats: .pdf (easiest to read and print), .docx (Word), .md (markdown viewer), and .txt (for AI assistants). manual_images holds the pictures the .md version uses.	Everyone
Python	The three PC programs — protocol_tool_gui.py, protocol_tool.py and protocol_editor.py	Anyone moving or editing protocol files on a computer

Where	What it holds	Who it's for
	— with a guide to each, a README, and the complete protocol file format.	
firmware_update_package	Everything needed to install the Generator's firmware on it again or update it. See Chapter 7 of the manual.	Anyone updating the firmware
Firmware Source	The eight Arduino source files, in a folder ready to open in the Arduino IDE. See Chapter 8.	People changing the firmware
Documentation	The circuit schematic and circuit board drawings.	Building or repairing a Generator
PCB Design Files	The circuit board design files.	Building circuit boards
Pictures	Photos of the Generator and its prototypes.	Anyone

Where to start

- **Using the Generator for the first time:** the manual, Chapter 1.
- **You have a question:** the “How To: Questions and Answers” section at the end of the manual.
- **You'd like an AI assistant to help:** give it `Manual/Generator_PWM_Manual.txt` and ask your question.
- **Moving protocol files between a computer and the Generator:** the manual, Chapters 5 and 6, and `Python/README`.

Working with this card on a computer

- **Switch the Generator off** before taking the card out.
- **Eject the card properly** before pulling it out of the computer. Pulling it out early can leave a file you just copied or renamed unfinished.
- **Put the card back in the Generator** when you're done.
- **Back up the whole card** to your computer from time to time.

Files from the website end in .txt

The Aurorasky website publishes the firmware and the PC programs with `.txt` endings, because the web server will only send files of that kind. The copies on this card already have their proper endings — `.ino` and `.py` — so use them just as they are.

Aurorasky · contact_9@aurorasky.net

The Generator is not a medical device, and nothing on this card makes any claim about the effect of any frequency.