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# Wiki EN



## Welcome on my personal Wiki!

This space was created to organize and share my experiences and materials, but it is also my creative space, which I treat as a bag for my ideas. For many years, I had a problem with organizing all the materials I had created as an IT specialist and educator. I searched for a long time for a simple "Wiki"-style system that would be easy to use and did not use a database. I chose the DokuWiki package, which I think is ideal for a small personal wiki. On this Wiki, you can find my studies and works that I have created for the purpose of teaching others. You will also find recordings of the training courses I conduct. You can also see programs, scripts, and technical advice useful in IT work. Sometimes I also publish interesting facts from the world of physics or mathematics. I like to see the visual effect of something I have created, which is why most of my work contains descriptions, graphical user interfaces, large colorful charts, code usually has comments, and the results of programs are presented graphically.

There are a few sections that don't have proper descriptions yet, but they will be added soon. I work on this wiki in my spare time, so I sometimes post something here with the thought, "I'll finish this later." Please treat this wiki as a drawer where I put whatever interested me at the time. You will also find notes from tutoring sessions, publications, tutorials, and documentation of original solutions. I also invite you to visit the [Blog](#) section, where I publish posts about what interests me at the moment. All posts from my old blog have also been migrated there.

Translations are also done manually by me so sorry if not everything is translated yet

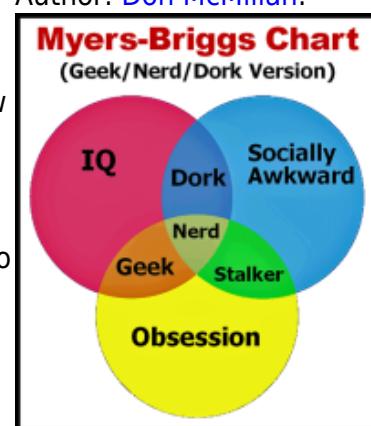
## The origin of the name ArduGeek

Arduino + Geek = ArduGeek

Why Geek and not [Nerd](#)? You will find the answer in the diagram on the right. The idea for the name "ArduGeek" came to me out of pure affection for the Arduino platform. And to be honest, that affection continues to this day. Arduino is one of those tools that can really draw you in. You don't have to be a professional electronics engineer to make something work and, importantly, see it work right away. A flashing LED, a moving servo, a sensor displaying data — all of this gives you enormous satisfaction, especially when you're just starting to learn. You feel like you're actually creating something.

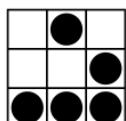
Arduino was created to help students learn microcontroller programming and work with electronics. It is easy to use, well documented, and open source – anyone can create their own add-ons, called shields, which plug directly into the board. There are lots of them – from those that add displays to those with Wi-Fi, Bluetooth, or Ethernet. On this wiki, you will find several of my projects – for example, using an Ethernet shield that allows you to connect Arduino to the network. Because, as we all know, if something has access to the Internet, it immediately makes a bigger impression ;)

Personality diagram  
Author: [Don McMillan](#)



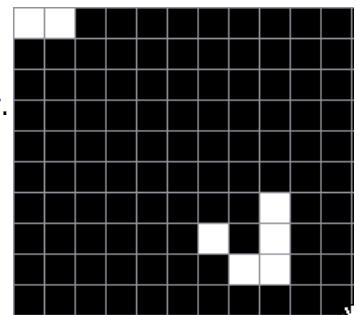
[source](#)

## The origin of the logo



My logo contains the emblem of the [hacker community](#). I am surprised that despite all the efforts of hackers, many people still do not understand the difference between a [cracker](#) and a [hacker](#).

Source: [Wikimedia.org](#)  
I identify myself a little with hacker culture, so when my graphic designer friend suggested that the logo would look better with some symmetrical element in the middle of the letter G, it came to my mind. For me, hacking is a clever and useful solution to a problem related to computer science, and it should not have a negative connotation for anyone. In Poland, there are many [hakerspaces](#) that bring together everyone involved in this field.



source: [dinesh-GDK/Game-Of-Life](#)

Hacker culture is guided by values such as:

Logo itself is really a [glider](#) from [Conway's](#)

\* **Freedom of information** - knowledge should be accessible to everyone; [IGame of Life](#) am not in favor of [hiding knowledge behind paywalls](#) or other mechanisms that exclude others. That is why the materials on this wiki are published under the [GNU FDL](#) license.

- **Share knowledge** - hackers love to talk about their projects and share them, which is why I created this wiki.
- **Don't trust authority** - decentralization.
- **Judge by skill** - what matters is what you can do.
- **The Art of Code** - programming and technology are not only science, but also a form of creativity and expression.
- **Technology changes lives for the better** - don't be afraid of new technologies, check, test, and experiment.
- **Break the system, but don't cause harm** - "hacking" is not cracking; it's not necessarily about destroying and breaking security measures, it's about exploring and improving them ([White hat](#)).
- Have fun and be curious about technology.

The wiki you are currently reading was created with precisely this in mind. The materials published here are not intended to enable anyone to hack into certain systems or steal software, but rather to raise awareness and teach how certain security measures and technologies work so that they can be properly implemented or experimented with.

The most well-known representatives of hacker culture who actually started it all include: [Richard Stallman](#), [Linus Torvalds](#) and [Eric S. Raymond](#). The most famous hacker publishing in Polish is [Gynvael Coldwind](#).

## Who am I?

I am IT engineer that is a nerdy passionate about stuff that he does. More info on my home page: [ostrowski.net.pl](#)

## What i am using

Type of software/program	Name	Why this?
Web browser	Firefox	Lightweight, habits, I use several profiles, etc. (maybe someday I'll write a blog post about some useful Firefox add-ons).
Text editor and hex editor	Notepad++ (in the past) now it is mostly Jedit or xed (default editor in linux mint)	Lightweight and it has plugins for virtually anything
Binary debugger for windows	X64dbg	I don't have a huge preference towards, i know how to use it and that's why i am using it
IDE python	Spyder, IDLE but nowadays mostly Jupyter	Graphs, good jupyter's interactivity where i don't have jupyter i use spyder

Type of software/program	Name	Why this?
IDE C++	Dev-CPP (nowaday i use CPP IDE very ocassionaly i just compile source in terminal)	I used it in highschool and i hate <a href="#">bloat</a> in VisualStudio
Database	Favorite MSSQL, but as frequent is MySQL	MySQL is free and compatible with most of the programs I use at work, while MSSQL is supported by some more commercial programs.
Office	OnlyOffice	Just got used to it
Diagrams	Visio at work, Draw.io at home	Visio because everyone uses it and I have a license, and draw.io because I integrate with Dokuwiki.
Electronics simulations	Tina-TI or <a href="#">falstad</a>	A very easy-to-use program, and one of the few that allows for “live” simulation.
Operating System	PC Linux Mint, servers it depends	I am a supporter of free software, but it is not always possible to avoid using something else.
Cloud	Used to use OneDrive Now i use SyncThing	<a href="#">You can read here why i stopped using cloud in general</a>
Terminal	MobaXterm (nowadays more Gnome Terminal)	I bought a license once, it integrates with WSL1 and 2, but I don't use it anymore.
Password manager	KeepassXC	I've had passwords in it for a long time now, and I like this program.
VPN and Hosting	<a href="#">Selfhost</a>	<a href="#">Read more herej</a>

## Configuration of this wiki

The entire system is based on the open source [DokuWiki](#) package. I have many plugins installed, but the ones worth mentioning are: [MathJax](#) and [Draw.io](#). DokuWiki integrates very well with these two packages, which allows me to conveniently format mathematical equations and create diagrams.

I also use this wiki as my personal notebook, which may explain the cloudflared tunnel security and retention backups.

If you want to use my mathjax and drawio installations, don't be shy, here are the links:

<https://wiki.ostrowski.net.pl/drawio/>

<https://wiki.ostrowski.net.pl/mathjax/MathJax.js>

[PRead: How to change DokuWiki config so that it uses your own instances of Draw.io and Mathjax](#)

Example use of mathjax:

$$\lim_{K \rightarrow \infty} \frac{a \cdot \cos(\pi \cdot p)}{e^r} = \text{[]}$$

Przykład zastosowania draw.io:

diagram1.png

Inne wtyczki zainstalowane na tej Wiki:

- [Add New Page plugin](#) 2025-04-22 by [Damien Regad](#), [Benjamin Santalucia](#), [Sam Wilson](#) and other contributors  
Adds a "new page form" to any wiki page.
- [Blog](#) 2023-10-24 by [Michael Hamann](#), [Michael Klier](#), [Gina Haeussge](#)  
Use DokuWiki as blogging tool. (previous authors: Esther Brunner)
- [Bookcreator Plugin](#) 2024-02-07 by [Gerrit Uitslag](#) (previous: [Luigi Micco](#))  
Allow to make a book (PDF, ODT, HTML or text) from selected pages
- [Button Plugin](#) 2025-03-29 by [Remi Peyronnet](#)  
Add button links syntax
- [color syntax plugin](#) 2022-10-19 by [Harald Hanche-Olsen](#)  
Write colored text in DokuWiki.
- [Diagrams plugin](#) 2025-10-15 by [Innovakom + CosmoCode](#)  
Embed diagrams.net editor (formerly draw.io)
- [discussion plugin](#) 2021-12-31 by [Michael Hamann](#), [Gerrit Uitslag](#), [Gina Häussge](#), [Christopher Smith](#), [Michael Klier](#), [Esther Brunner](#), [Matthias Schulte](#)  
Provides discussion functionality for wiki pages
- [Dw2Pdf plugin](#) 2023-11-25 by [Andreas Gohr](#) and [Luigi Micco](#)  
DokuWiki to PDF converter
- [Editor Plugin](#) 2020-12-13 by [Gina Häußge](#), [Michael Klier](#), [Esther Brunner](#)  
Displays a list of recently changed wiki pages by a given author
- [Encrypted Passwords Plugin](#) 2023-12-20 by [Andreas Gohr](#)  
This plugin let you store 256 bit AES encrypted passwords in your DokuWiki pages. The password can be decrypted by clicking them (Javascript must be enabled).
- [Gallery Plugin](#) 2024-04-30 by [Andreas Gohr](#)  
Creates a gallery of images from a namespace or RSS/ATOM feed
- [htmllok plugin](#) 2023-05-10 by [saggi](#), [glen](#)  
Allows embed HTML and PHP
- [iframe plugin](#) 2023-08-17 by [Christopher Smith](#)  
Allows external URLs to be loaded into an iframe in your DokuWiki page.
- [include plugin](#) 2023-09-22 by [Michael Hamann](#), [Gina Häussge](#), [Christopher Smith](#), [Michael Klier](#), [Esther Brunner](#)  
Functions to include another page in a wiki page
- [Info Plugin](#) 2020-06-04 by [Andreas Gohr](#)  
Displays information about various DokuWiki internals
- [MathJax plugin](#) 2021-11-20 by [Mark Liffiton](#)  
Enables MathJax (<https://www.mathjax.org/>) parsing of TeX math expressions in wiki pages
- [nosidebar plugin](#) 2013-07-14 by [Matthias Schulte](#)  
Disables DokuWikis internal sidebar for individual pages
- [Note Plugin](#) 2024-04-15 by [Anael Mobilia](#)  
Add Note/Important/Tip/Warning Capability (DIV+CSS box)
- [nspages plugin](#) 2024-11-22 by [Guillaume Turri](#)  
Presents a toc of the selected namespace using <nspages>
- [Open Document Plugin](#) 2023-03-03 by [Andreas Gohr](#), [Aurelien Bompard](#), [Florian Lamml](#), [LarsDW223](#)  
Export the current Wiki page to a OpenOffice ODT file
- [Pagelist Plugin](#) 2023-08-27 by [Matthias Schulte](#), [Michael Hamann](#), [Michael Klier](#), [Gina Haeussge](#)  
Lists pages in a nice formatted way
- [simplenavi plugin](#) 2025-04-03 by [Andreas Gohr](#)  
Create a simple navigation tree based on namespaces
- [slider plugin](#) 2020-07-08 by [Andreas Gohr](#)  
Add a slider element to any DokuWiki page

- [Tag Plugin 2023-10-17](#) by [Michael Hamann, Gina Häussge, Christopher Smith, Michael Klier, Esther Brunner](#)  
tag wiki pages
- [ToDo 2024-05-10](#) by [Leo Eibler, Christian Marg, Markus Gschwendt, Robert Weinmeister](#)  
Create a checkbox based todo list with optional user assignment (basic syntax: <todo>This is a ToDo</todo>). It can also be used as a lightweight task list management system.
- [Translation Plugin 2025-05-20](#) by [Andreas Gohr](#)  
Supports the easy setup of a multi-language wiki.
- [Video Sharing Site Plugin 2025-02-21](#) by [Andreas Gohr](#)  
Easily embed videos from various Video Sharing sites. Example: {{youtube>XXXXXX}}
- [Wrap Plugin 2023-08-13](#) by [Anika Henke](#)  
Universal plugin which combines functionalities of many other plugins. Wrap wiki text inside containers (divs or spans) and give them a class (choose from a variety of preset classes), a width and/or a language with its associated text direction.
- [Yearbox Plugin 2021-03-19](#) by [Michael Große \(formerly: Symon Bent\)](#)  
Builds a complete HTML calendar for the given year, with a link to create a new page for each day of the year. Existing pages will have a tooltip showing a preview of the page content.

## Contact

If you want to contact me or have any questions, please visit the [contact page](#).

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This wiki is constantly being developed and updated. Feel free to explore!