



Łukasz Błaszczyk

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About Me

Hi, I'm Łukasz, an automation enthusiast focused on building efficient and reliable systems. I enjoy solving technical challenges, optimizing processes, and working on projects that push my skills further. If you're looking for someone proactive and committed — I'm ready for the next challenge! 😊

Work Experience

12.2025 – now 🏢 **DCX Liquid Cooling Systems** | *R&D Automation Engineer*

Developing server cooling solutions - such as FDU v1, v2, and RDHX units. Integration with facility systems using BMS via Profinet.

- Creating electrical schematics (EPLAN, SW Electrical)
- PLC Programming (Siemens TIA Portal, Beckhoff in CodeSys)
- Designing HMI (WinCC, Web HTML)
- Working with CAD SolidWorks
- Work scheduling, supervision of commissioning and hardware assembly (automation/electrical side)
- Migration of existing automation systems to other manufacturers' solutions at the lowest cost

06.2024 – 11.2025 🏢 **Fabryka Urządzeń Dźwigowych S.A.** | *R&D Electrical/Automation Engineer*
Mińsk Mazowiecki, Poland

Working with devices from leading manufacturers of industrial automation, electrical installations, and remote control equipment, such as Siemens, ABB, Danfoss, Schneider Electric, IDEC, SEW, Ditel, Stego, Akerstroms, HBC-Radiomatic, Pepperl+Fuchs, Telemecanique, Wieland, Igus, and Kübler.

- Creating electrical schematics (SEE Electrical Expert)
- PLC Programming (Siemens TIA Portal, ABB Automation Builder)
- Configuration of inverters (Danfoss, Schneider Electric, and ABB)
- Working with CAD Solid Edge
- Compiling full technical documentation for various types of cranes and delivering it to clients
- Preparing and submitting technical documentation to UDT/TDT for certification processes

07.2023 – 08.2023 🏢 **MEDCOM Sp. z o.o.** | *Production Support Worker*

09.2022 – 10.2022 🏢 **MEDCOM Sp. z o.o.** | *Production Support Worker*

06.2022 – 07.2022 🏢 **MEDCOM Sp. z o.o.** | *Production Support Worker*

- 01.2022** 🏢 **MEDCOM Sp. z o.o.** | *Production Support Worker*
Warsaw, Poland Technologically advanced domestic company specializing in the production of electrical cabinets for public transport vehicles, including trains and Solaris buses.
- Cable preparation, soldering, and cabinet wiring
 - Reading electrical schematics and diagrams
 - Protecting printed circuit boards (PCBs) at the lacquering station

- 04.2023** 🌐 **Erasmus+** | *Foreign Internship*
Italy
- Improving English language skills
 - Working with mechatronic devices
 - Expanding knowledge of electronic systems and programming
 - Working with Arduino-based platforms

Education

- 10.2024 – now** 🏢 **Warsaw University of Technology** | *Mechatronics of Vehicles and Construction Machinery*
Warsaw, Poland
Engineer (B.Eng.)
- After completing three semesters of this demanding course, I can confidently state that I have significantly deepened my knowledge of mechatronics.
- Developed skills in reading, analyzing, and interpreting complex technical drawings and engineering schematics, which are the foundation of effective mechanical and electrical design.
 - Expanded knowledge of mechanical engineering by studying key theoretical issues such as dynamics, materials science, and structural analysis, while applying these principles in lab work and projects.
 - Co-authored the open-source project [dynpy](#), collaborating with other programmers on code improvement and solving complex issues (one of my assigned tasks available [here](#)).
 - Gained practical experience using MATLAB for technical calculations and data analysis.
 - Demonstrated CAD proficiency, basing on previous Solid Edge experience while exploring SolidWorks.
 - Played an active leadership role as co-owner and co-author in the student scientific circle [Studenckie Koło Naukowe Pojazdów Niekonwencjonalnych "Admiral"](#), engaging in innovative projects and research concerning, among others, a water bike with a safety cage.

- 09.2019 – 05.2024** 🏢 **Technical High School No. 2 (ZSZ nr 2)** | *Mechatronics*
Mińsk Mazowiecki, Poland
- Technical high school with a mechatronics profile, providing solid foundations in automation, robotics, and electronics. During my education, I acquired a wide range of practical skills and theoretical knowledge, finishing with positive results in vocational qualifications and the Matura exam, confirming readiness for higher education or professional work.
- Graduated with distinction, reflecting commitment, high academic results, and proficiency in key subjects.
 - Completed vocational module 'ELM.03 – Assembly and operation of mechatronic systems', gaining practical experience in building, testing, and diagnosing mechatronic assemblies.
 - Completed module 'ELM.06 – Programming and operation of mechatronic devices', which equipped me with skills in programming and operating various mechatronic devices, including embedded control systems.

Courses

- 06.2025** 🇵🇱 **Polish PLC Programming Championships | [Edition VII](#)**
Wrocław, Poland The PLC Championships is a prestigious national competition promoting excellence in PLC programming, connecting academic and industrial environments, and identifying top talents in industrial automation. I competed in OPEN and Expert categories, working on Siemens PLCSpace (TIA Portal), LOGO!, and Finder/Arduino platforms with OPTA and Fatek controllers. The competition allowed me to develop and refine industrial automation programming skills in a demanding, competitive environment.
- 03.2025** 🤖 **Hackathon (Econverse) | [Link](#) | [Our solution](#)**
Warsaw, Poland
Łódź, Poland Participated in a hackathon challenge organized by Kozminski University, focusing on automation and optimization of recruitment processes using intelligent systems. Our team developed an innovative solution named *LockIn AI-Based*, utilizing AI techniques to increase recruitment efficiency. Our approach stood out for creativity and practical application, winning first place. This experience strengthened my competencies in programming, teamwork, and applying AI to real-world problems.
- 10.2024** 🛠️ **4Better Automation Course | [Certificate](#)**
Brenna, Poland Comprehensive course aimed at deepening technical knowledge and practical skills in industrial automation. Topics included drive systems and motors by SEW-Eurodrive, sensor technologies and communication solutions by Pepperl+Fuchs, as well as high-performance polymer components and cable carrier systems by Igus. The course provided valuable information on modern automation elements and their integration in industrial processes.
- 06.2024** 🇵🇱 **Polish PLC Programming Championships | [Edition VI](#) | [Group photo](#)**
Wrocław, Poland Competed in OPEN and Master categories using Siemens Horizon (TIA Portal), LOGO!, and Finder/Arduino with OPTA controllers. The event was a valuable learning opportunity and a platform for networking with other participants and industry professionals.
- 2023** 🇬🇧 **English Proficiency Certificate (C1) | [Certificate](#)**
Achieved an advanced level of English proficiency, confirmed by a C1 certificate according to the Cambridge English Scale methodology. This document attests to my ability to communicate effectively in professional and academic contexts, demonstrating a high level of fluency and comprehension.

Skills

🌐 Languages

Native 🇵🇱 Polish with full fluency, complemented by advanced knowledge of 🇬🇧 English at C1 level. My bilingual skills allow for effective communication in an international environment, both in speech and writing, supporting collaboration and professional contacts.

08.2023 🚗 **Driving License: Category B**

Beyond the formal document, I am passionate about vehicles, which increases my mobility and flexibility in private and professional life.

🔧 Industrial Automation

Experience in creating automation solutions using tools from companies like Siemens (TIA Portal), ABB (Automation Builder), WAGO (in CodeSys), Arduino (PlatformIO and PLC IDE), and Fatek (WinProLadder). Designing and programming HMI interfaces on Siemens WinCC, IDEC, and ABB platforms, utilizing HTML for web control, remote access, and diagnostics.

Electrical Design

Proficiency in SEE Electrical Expert (IGE+XAO) and EPLAN. I seamlessly create schematics, connection drawings, and BOMs.

Embedded Systems Programming

Execution of projects on microcontroller platforms ESP, Arduino, and STM32. Programming in embedded C/C++, peripheral integration, and real-time system design with a focus on reliable and efficient solutions.




PCB Design

Used KiCad to create printed circuit boards (PCBs), covering schematics, layout, and generating production BOMs. Knowledge of the full design process, from concept to production documentation.

Microsoft Software

Fluent operation of Microsoft Word, Excel, and PowerPoint, backed by experience gained in various projects and workplaces. I comfortably use the Office suite for document creation, data analysis, presentation preparation, and project support. Additionally, knowledge of PowerApps software and experience creating applications in this environment during collaboration with [SpinBit](#).

Programming

Knowledge of several programming languages, mainly  Python and  C++. Experience in software development processes, including version control using  Git. I create web and mobile applications, integrate software with hardware, and solve algorithmic tasks. Additionally, good knowledge of Linux family systems and containerization software (e.g., Docker).

Projects

2023 – now **Website** | [Link](#)

Created my own website serving various functions, including hosting my services and tools. The platform also supports firmware update distribution for several of my hardware projects, ensuring a central place on the web.

12.2024 – now **SmartPrzyczepka** | [Closed Source](#) | [Summary](#)

Project based on ESP32C3 microcontroller and ESP-IDF framework, used for controlling outputs in a camping trailer via buttons. The system improves interaction with the electrical installation, enabling automation and remote control.

10.2024 **Video Encoder** | [Code](#)

Video encoder project aimed at standardizing codecs and formats, and additionally reducing file sizes. Users can fork the repository, run the GitHub Actions workflow, provide a video link, select settings, and automatically execute encoding using ffmpeg.

03.2023 – now **AlphaLED** | [Project: Old - ESP8266 / New - ESP32C3](#) | [Summary](#)

Wi-Fi controlled LED matrix project based on ESP microcontrollers, with an 8x8 diode grid and multiple functions available via a web interface. Combines advanced hardware with user-friendly control, offering practical and interactive lighting solutions.

02.2024 **AI Radio** | [Code](#) | *discontinued*

Automated MP3 radio that selects and plays music using algorithms. Project concluded, but allowed for developing skills in integrating calculations with playback and server management.