



BESSARABIA SOFTWARE TECHNOLOGY

Founded in 2021 we are **one of the fastest growing** Software Development company focused on Embedded Systems, Automotive and IoT industry in Moldova.

We're **the 1'st Local** Automotive, IoT and Product Design software development company.





IT PARK RESIDENT
simplified tax compliance



BOARD MEMBER of
association of electronics companies in Moldova

MEMBER OF ASOCIATION



Deutsch-Rumänische
Industrie- und Handelskammer
Camera de Comerț și Industrie
Româno-Germană

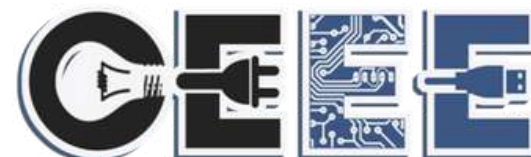


Moldovas Deutschsprachiger
Wirtschaftsverband

In partnership with the support of the "Strong Businesses and Communities for Moldova" project, financed by the German Federal Ministry for Economic Cooperation and Development (#BMZ) and Swiss Government, **we implemented Embedded School in**



CPB
COLEGIUL POLITEHNIC
DIN BĂLȚI



**BESSARABIA
SOFTWARE
TECHNOLOGY**

DNA

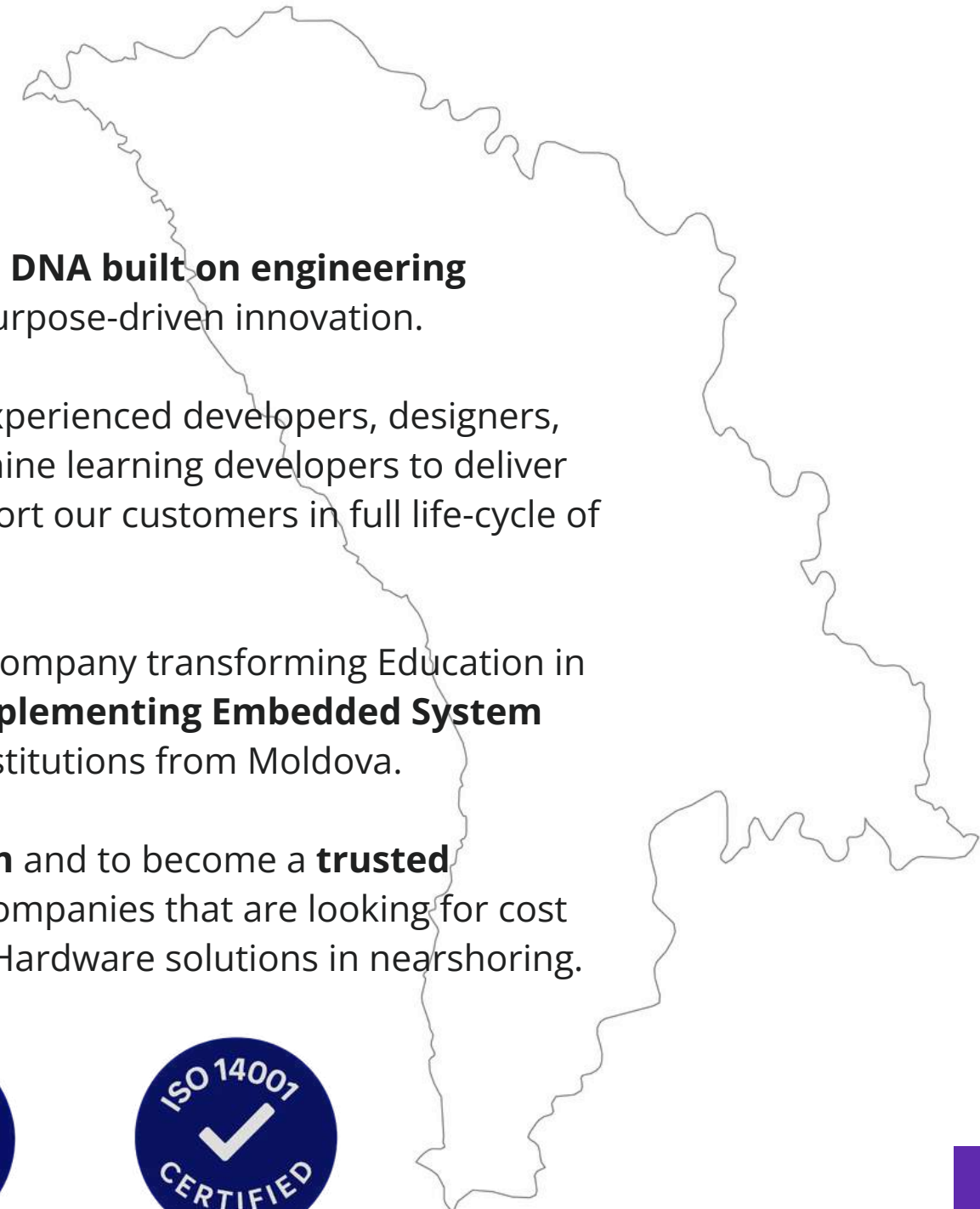
11 - 11 - 2021

At the core of **BSW TECH** lies a **DNA built on engineering** excellence, adaptability, and purpose-driven innovation.

We bring together a team of experienced developers, designers, hardware engineers, and machine learning developers to deliver innovative solutions, and support our customers in full life-cycle of the product.

We are one of the pioneering company transforming Education in the Republic of Moldova by **implementing Embedded System** Courses **in 3 Technical VET** Institutions from Moldova.

Our Scope is **to play long-term** and to become a **trusted nearshoring partner** for EU companies that are looking for cost optimizations and Software & Hardware solutions in nearshoring.



WHAT WE DO

01

Hardware Design

- Schematic design
- PCB Layout and Manufacturing
- Testing
- BOM optimization
- Toolset: Altium, Spice, CAD

02

Embedded Systems

- C / C++ for microcontrollers (STM32, ESP32, NXP, TI, Renesas, PIC)
- Board Support Package (BSP) development
- RTOS integration and development, experience with Zephyr OS, FreeRTOS,
- Driver development from scratch for interfaces like I2C, SPI, I2C, USART

03

WEB and MOBILE development

- Web Application Development
- Mobile App Development (iOS/Android)
- Cross-platform Development (React Native, Flutter)
- UI/UX Design & Optimization

04

Data & System Services

- Data Analysis, Engineering, Visualization, Migration
- Data Science (Statistical Modelling, Predictive Analytics, Data Mining)
- System Architecture Design & Database Optimization Code Performance Optimization & QA Testing Third-party Integrations & APIs

05

Machine Learning & AI

- Model Deployment & Management
- Automated Model Testing & Resource Orchestration
- Model Monitoring & Drift Detection

06

Cloud and DevOps

- Cloud Solutions, Migration & Management
- DevOps Automation & CI/CD
- Infrastructure as Code (IaC) (Terraform, Ansible)
- Containerization & Orchestration (Docker, Kubernetes)

WHAT WE KNOW

01

Programming Languages

C / C++
Embedded C
JavaScript
TypeScript
Python
Go(Golang)
Swift
Kotlin
Java
PHP

02

Frameworks

Next.js
React.js
Vue.js
Node.js
Express.js
React Native
Flutter
Django
Flask
Spring Boot

03

Data & System Services

PostgreSQL
MonoDB
MySQL
Firebase
ElasticSearch
Redis

04

ML and Data

PyTorch
Keras
NumPy
TensorFlow
Ploty
SciPy
Pandas

05

Automotive

AUTOSAR Classic & Adaptive
Flash Bootloaders
BMW SIP
Functional Safety ISO 26262
Davinci Configurator MCAL and BSW
Elektrobit MCAL
Davinci Developer ASW, RTE, CDD
Linux Env
DEM/DCM, COM, MEM Stack
CANoe config, WinIDEA iSystem, Trace 32
Rhapsody, DNG, Jenkins, Polarion

06

IoT

Espressif ESP32
STM32 Cortex Mx
LoRaWan, 0G Sigfox, ZigBee
Bluetooth 5.0, WIFI
MQTT, COAP, Java Core
Nordic NRF, Mesh Network



INDUSTRIES WE HANDS ON

01

AUTOMOTIVE

We have dedicated teams that are experts in AUTOSAR and Automotive standards. We've been outsourcing and out staffing for Tier 1 companies like **Marquardt**, **Preh**, and **Osram Continental**, implementing Automotive Software in Engine System, Door Control Unit, Infotainment and AUTOSAR Platform. We see cars on the roads that we've put our hands on like BMW iX, Peugeot 3008, Porsche Taycan and Alfa Romeo Stelvio.

02

IoT

Part of the Software of next generation of **Daikin Europe Air Conditioners** is developed in our office.

We've developed the Board Support Package for the **ROWENTA** Air Purifier and **TEFAL** Multicook devices through Randstad Digital company.

We've developed from hardware to Software the Pulse Counter meters on LoRaWan and 0G (Sigfox) newtrot.

03

WEB AND MOBILE

We've designed and developed the UI/UX design, Backend, WEB and cross platform Mobile Application for **ELECTRA Interphones**, **Fyrqom AB for Volvo Trucks** Tire Pressure Monitoring System (TPMS) and **EBS Electronics small consumers** like intelligent Lightning systems

04

Product Design

From concept to mass production

From **Hardware development** to **Embedded Software** to **Cross Platform Mobile App** implementation - we support our clients with the full life-cycle of a product. We already helped ELECTRA SA and EBS Electronics do develop their products from scratch.

R&D Experience in **Battery Management System BMS up to 4 KWh storage** building the hardware & Software with experience on Texas Instrument's **BQ series** solutions, provided with all required test like overcurrent, short circuit, over and under temperature, over and under voltage. We can customize your hardware according to your requirements.

MEET OUR TEAM



Gheorghe Ghirjev

CEO, Business & Process, Setting the vector and giving the speed.



Igor Railean

CTO - Automotive Team Lead



Grigore Ciobanu

Backend and Mobile Team Lead



Vladislav Molcuza

Hardware and PCB Layout Team Lead



Daniel Vrabii

ML & AI Team Lead



All the images on this slide are NFTs created by BSW TECH showcasing our expertise in Blockchain and WEB3. Each employee holds an NFT & internal ID in the company is the HASH of NFT



HOW WE WORK



01

Out Staffing & Augmented Team

We seamlessly integrate our team of 15+ engineers and developers with your inhouse talent, empowering your team with additional skills and expertise while staying aligned with your leadership and vision.

02

Dedicated Teams

We provide a full, dedicated team that is exclusively assigned to your project, managing the entire technical implementation process and ensuring that your vision is executed with precision.

03

Full Outsourcing of IT Department

We become your external IT partner, offering expert-driven solutions, scalability, and cost efficiency, so you can focus on what matters most-your core business operations.

04

Support & Product Design

We provide full support in the life-cycle of a product design. From Schematic design, PCB Layout, Manufacturing, testing, BOM optimization, to Embedded Software, UI/UX, Backend, Frontend Mobile Application and WEB Platform. Also we are capable to develop the product for you from scratch.



WE HELP EMS & PCBA COMPANIES

Digital Twin Philosophy - We build it **virtually** before we build it **physically**

01

Hardware Design PCB LAYOUT

We build the Schematic, PCB Layout, 3D Design - No production starts without visual and automated inspection.

02

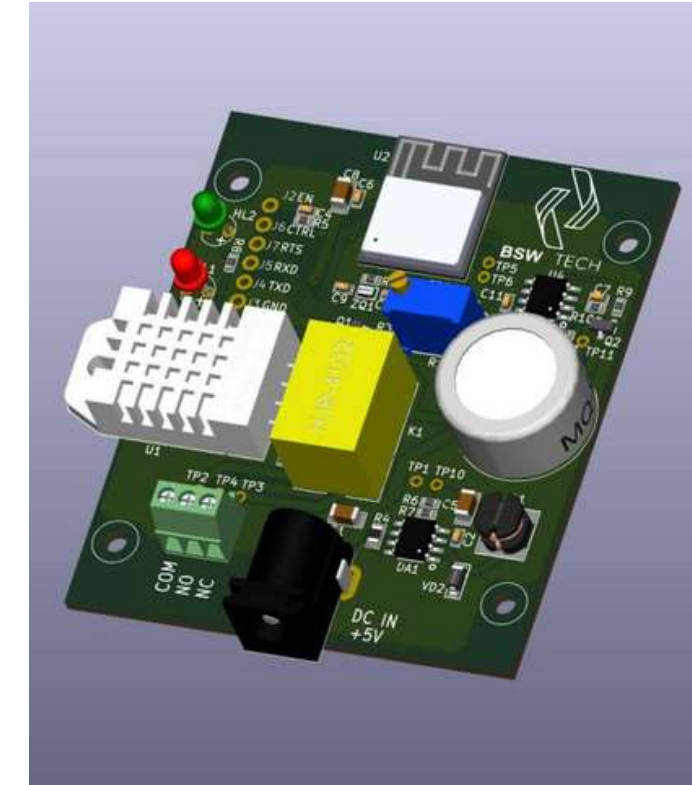
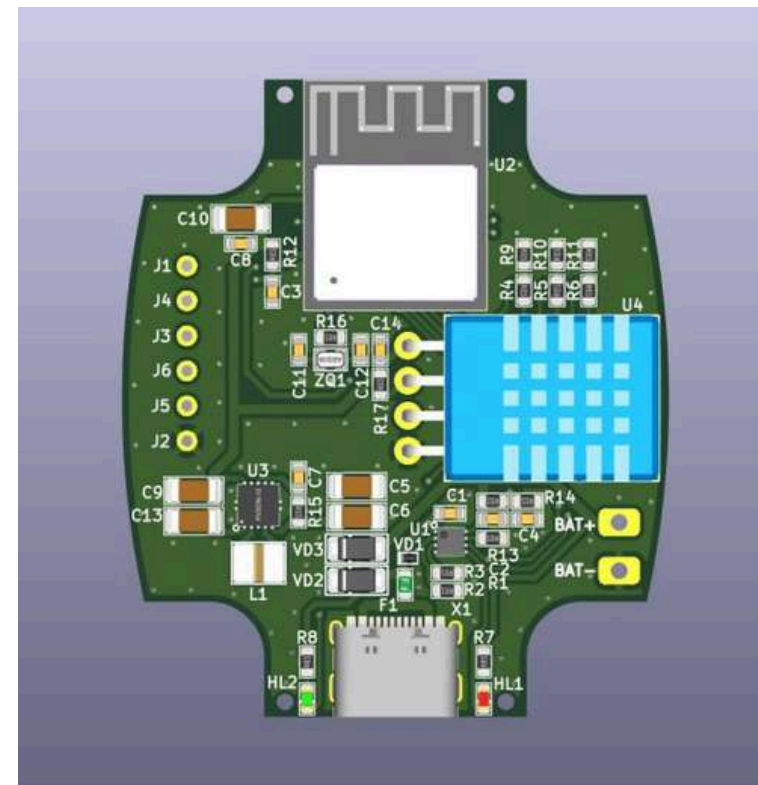
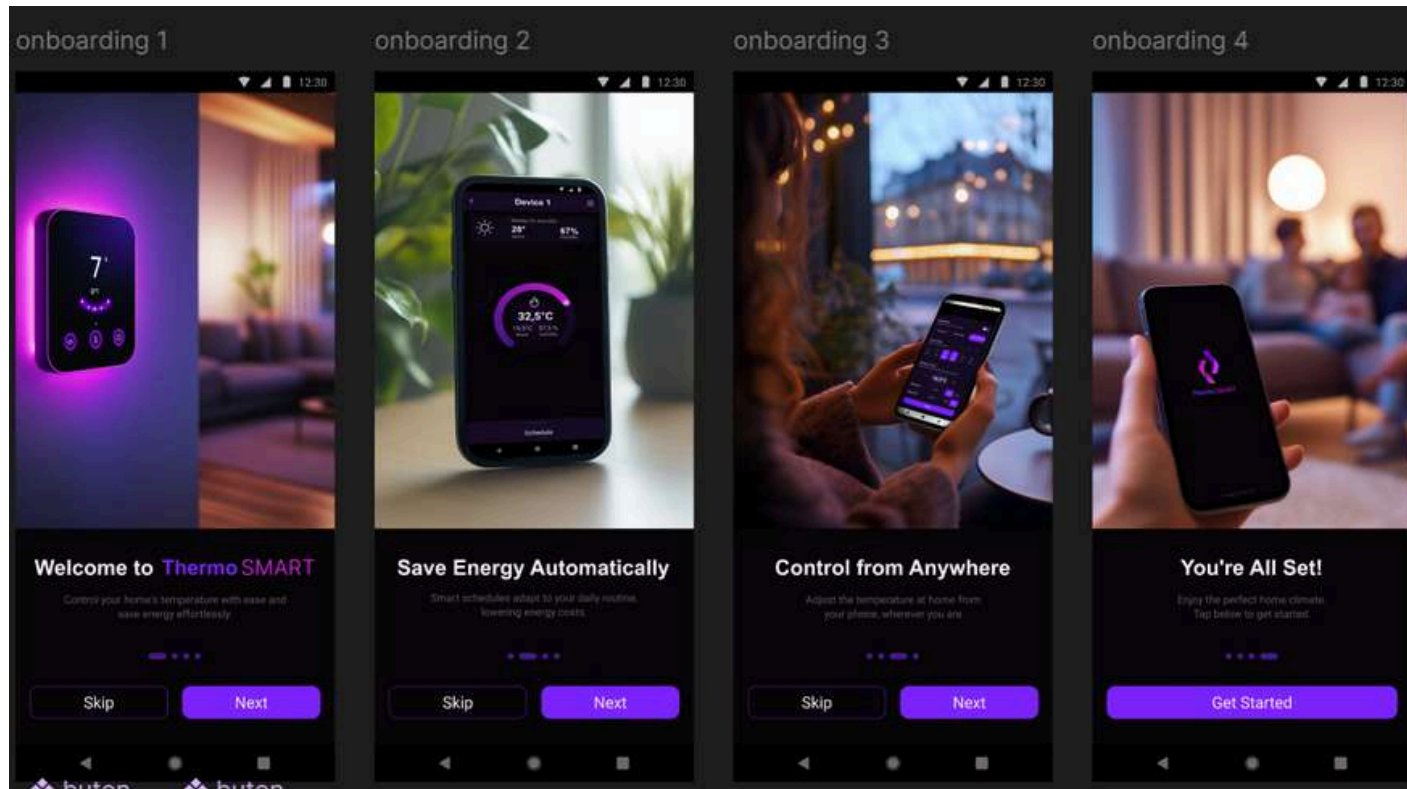
Figma Design

We provide full UI/UX Design for Mobile and WEB App. Full flow simulation of the Mobile app before it is implemented.

03

Test Verification & Validation, Embedded Software, Requirement and Documentation

Hardware validation and verification by Software test application, External manipulation of the pins, ADC, Clocks, Voltage Monitoring.



CLIENTS AND PARTNERS

VivaFem

Appsfactory

Germany



ELECTRA



fyrqom



Sweden & Denmark



Mihai Darzan
CEO GeFEE TECH

The outsourcing service was exceptional, and the team was incredibly helpful throughout the entire process. Highly recommend!

Romania



Christoph Hiltl
Project Team Lead at Appsfactory

BSW-Tech brought great motivation and innovative ideas to the project. A fantastic collaboration!

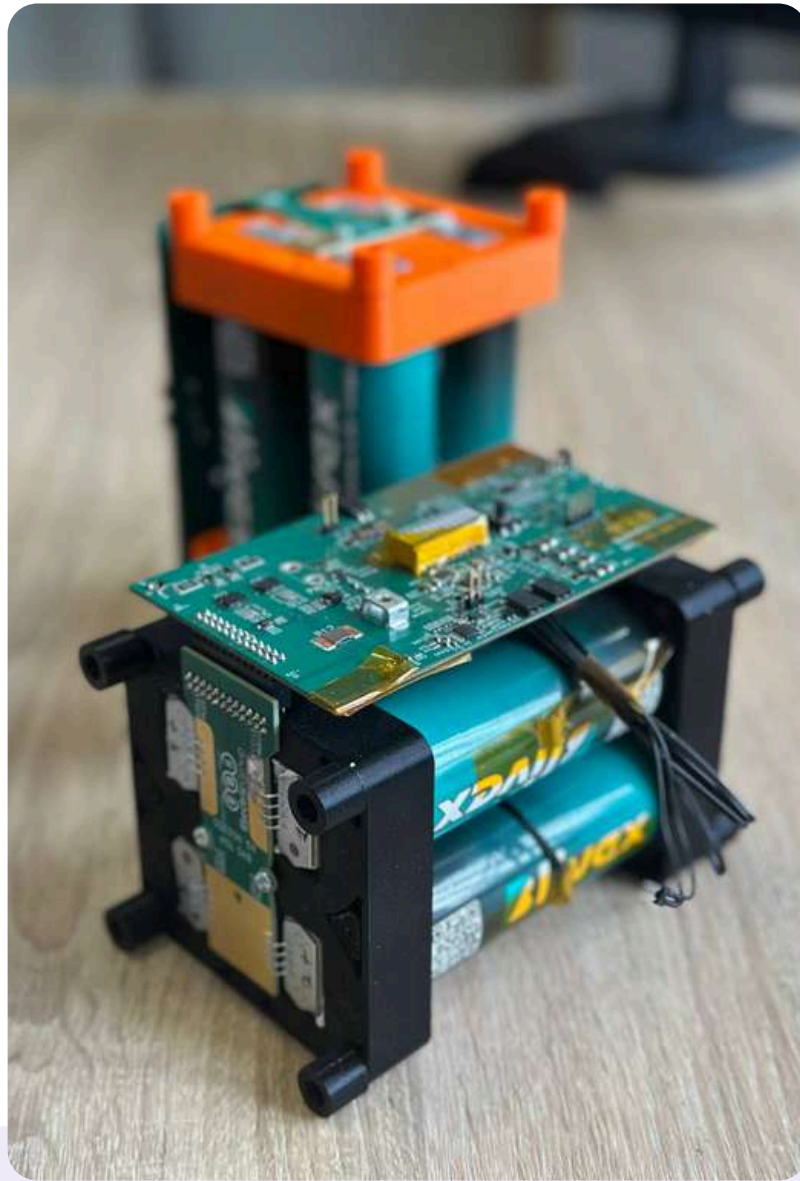
Germany



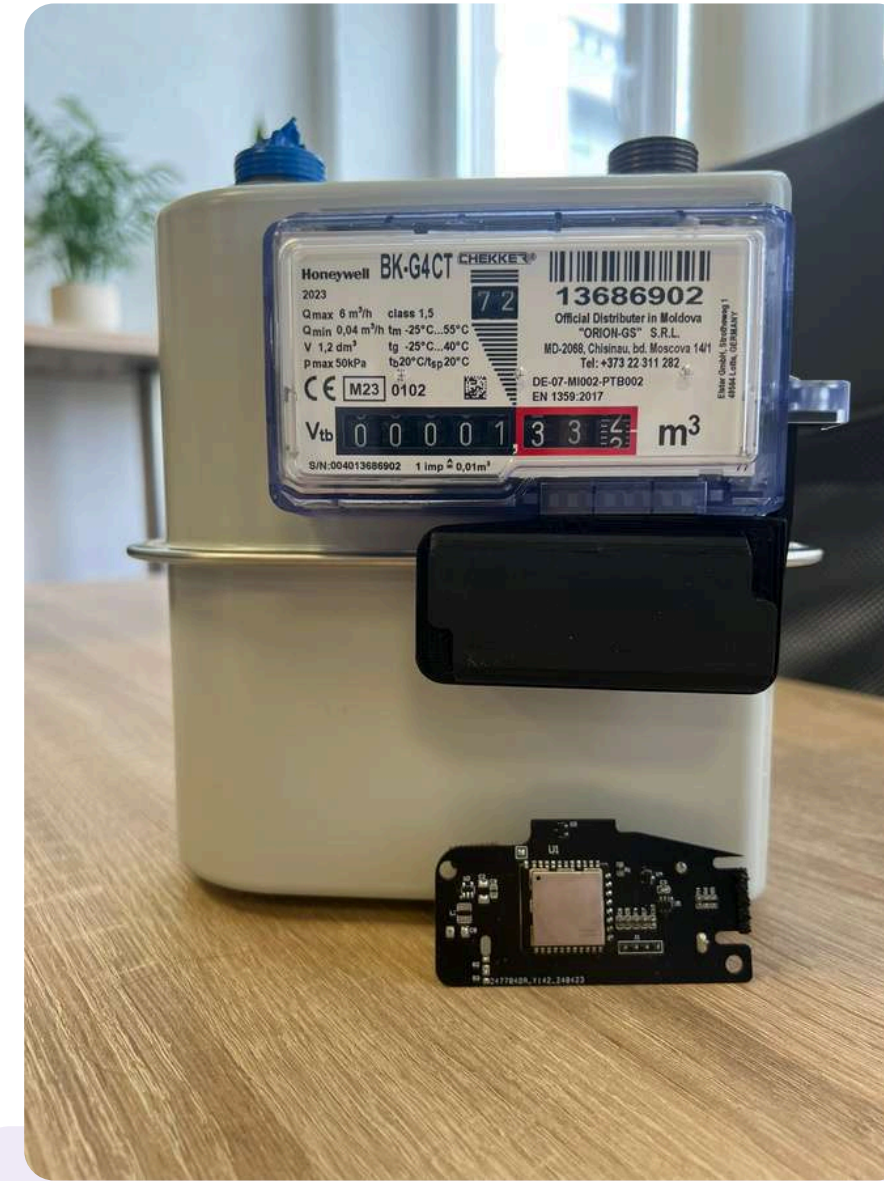
Roman Iustin
CEO Fyrqom AB

Highly recommend BSW-Tech for full outsourcing IT Department. We've built our product inside BSW-Tech team.

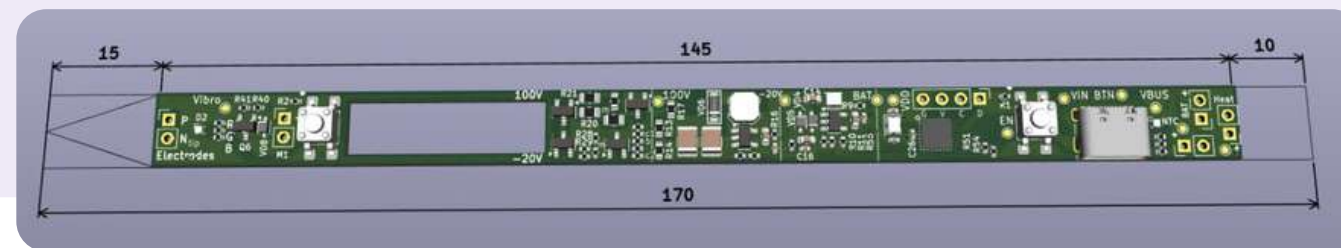
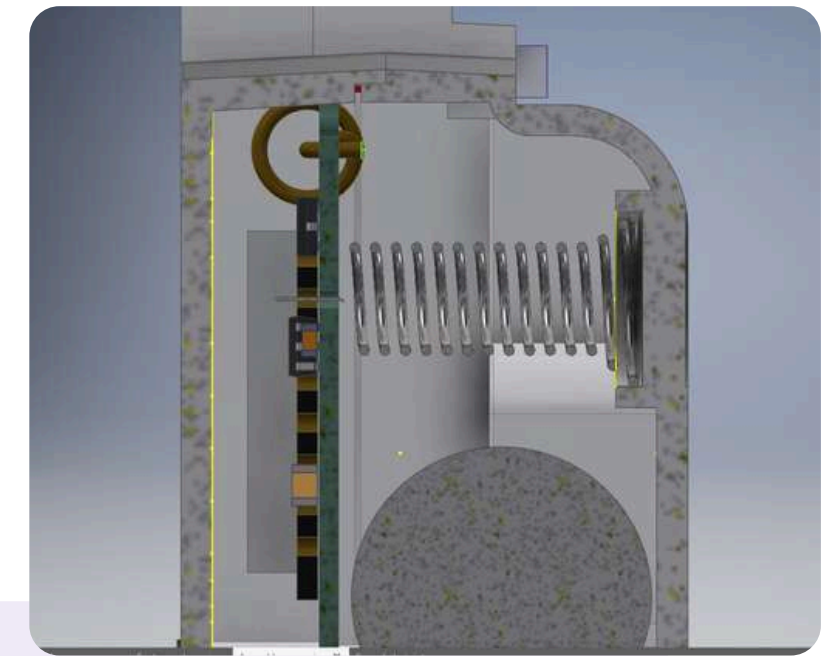
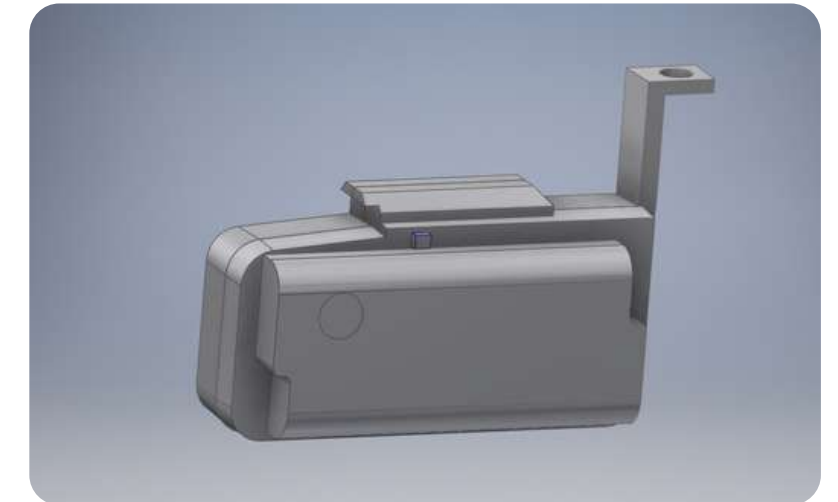
Sweden



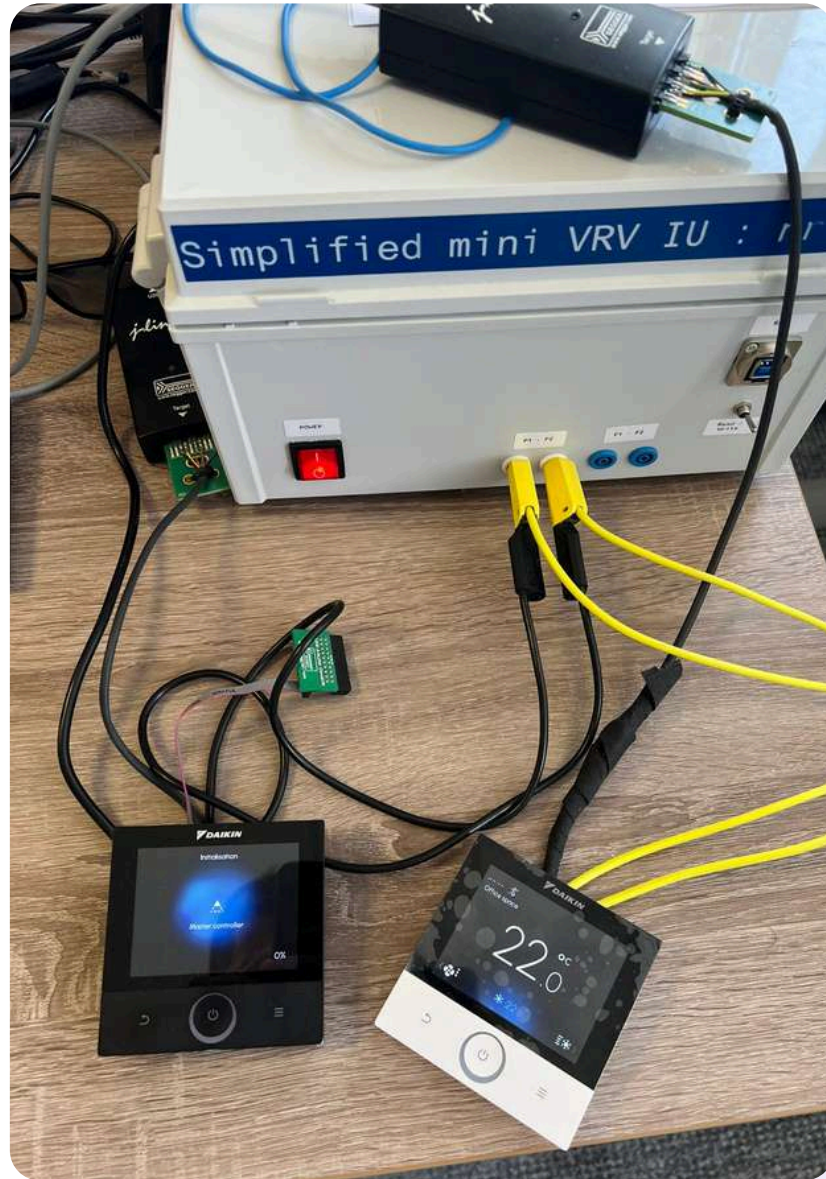
Full Development of the product
Customer development of a Battery Management System up to 1 KWh.



Internal project from hardware to plastic molding to Desktop Application
LoRaWan pulse counter, will be used for Moldova Gas provider.



Biomedical Device Acu-Pen
Full life-cycle development of the device for the customer.



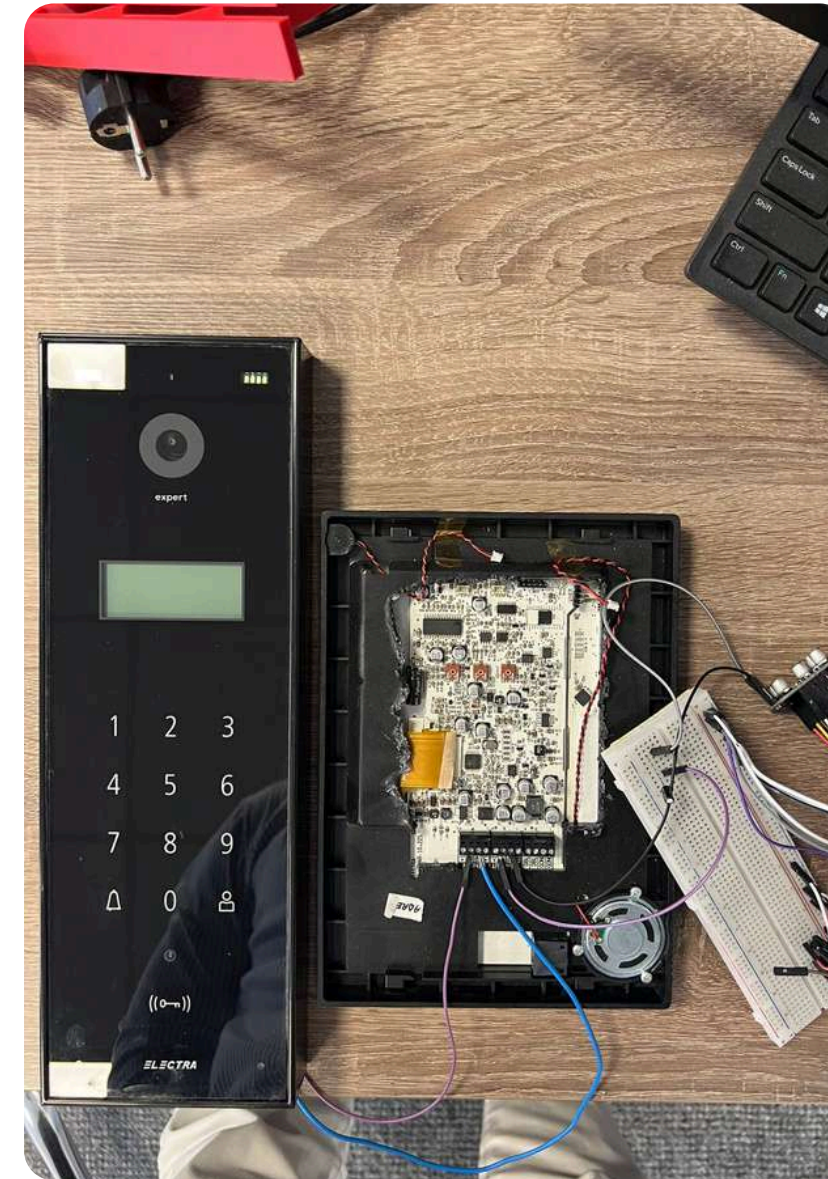
Daikin Europe Air Conditioners

Responsible by Embedded Software implementation, Mobile and Cloud application development. Unit and Functional testing.



Fridge Chambers IoT

We've developed the Software part especially OTA Update and draw the GUI interface in Touch GFX.



ELECTRA Interphones

Full life-cycle of the product. Hardware & Software development. UI/UX, Backend and cross platform mobile app development.



Fuse control (BMW)

Flash Bootloader implementation, BMW BAC and Vector SIP integration. DID implementation, maintenance.

OUR CONTACT



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For any inquiries send a message to
gheorghe.ghirjev@bsw-tech.com

All times have had their ups and downs - But we stay committed for an **organic grow**, for **long-term partnerships**, a stable and **healthy environment**.

