



RED RING DESIGN

INDUSTRIAL DESIGN,
AND MASS PRODUCTION
FOR ELECTRONIC COMPANIES



RRD specializes in the industrial design, development, and production of electronics enclosures. For 10 years, we have gained a lot of practical experience - our hands and heads have successfully completed 300 projects

This is our job when you need to get a competitive design for your device, develop documentation for mass production, make a prototype or start mass production of cases.

10 industrial designers and engineers in Europe and factories in Asia are our capabilities. A complete cycle from an idea to the delivery of cases to your warehouse.

Let's get acquainted!

RRD, specialists
in electronics device enclosures
design and production



Desing + Prototype + Mass production

All enclosures design and manufacturing services for electronic companies in one point.

Prototypes and mass production of enclosures at factories in China, Kazakhstan and Turkey

Or, if we consider each service separately:

Development of technical specifications

Development of conceptual sketches

3D modeling and visualization

Enclosure prototyping

Research and analysis

Project documentation

Pre-production preparation

Series production

We use production technology:

Silicone injection molding of polyurethanes

Plastic injection molding

Sheet metal processing

Aluminum extrusion

Aluminum milling





Detector of radon levels

We designed the case in radio-transparent plastic - the design is classic, even a bit "old-school". According to the specification, the device had to be easy to carry. This means that the surface of the grip area should be at least ribbed. The case has two elements and three surface textures (smooth, matte, and satin). The production technology is silicone molding.



Gamma-therapeutic complex

This complex is used in oncology for radiation therapy. The shell of the complex consists of two main parts: the enclosure and the switching device. The easily removable covers of the complex are attached to a metal frame. RRD redesigned the enclosure using a different material because the acrylic stone enclosure proposed by another design lab proved impractical.

Industrial computer

The principal condition is that the enclosure must be as thin as possible (estimated dimensions – 180x180x30 mm), and the design is laconic and minimalistic. In several days RRD designers came up with more than 15 variants of the visual appearance of the device. The primary enclosure material is plastic.





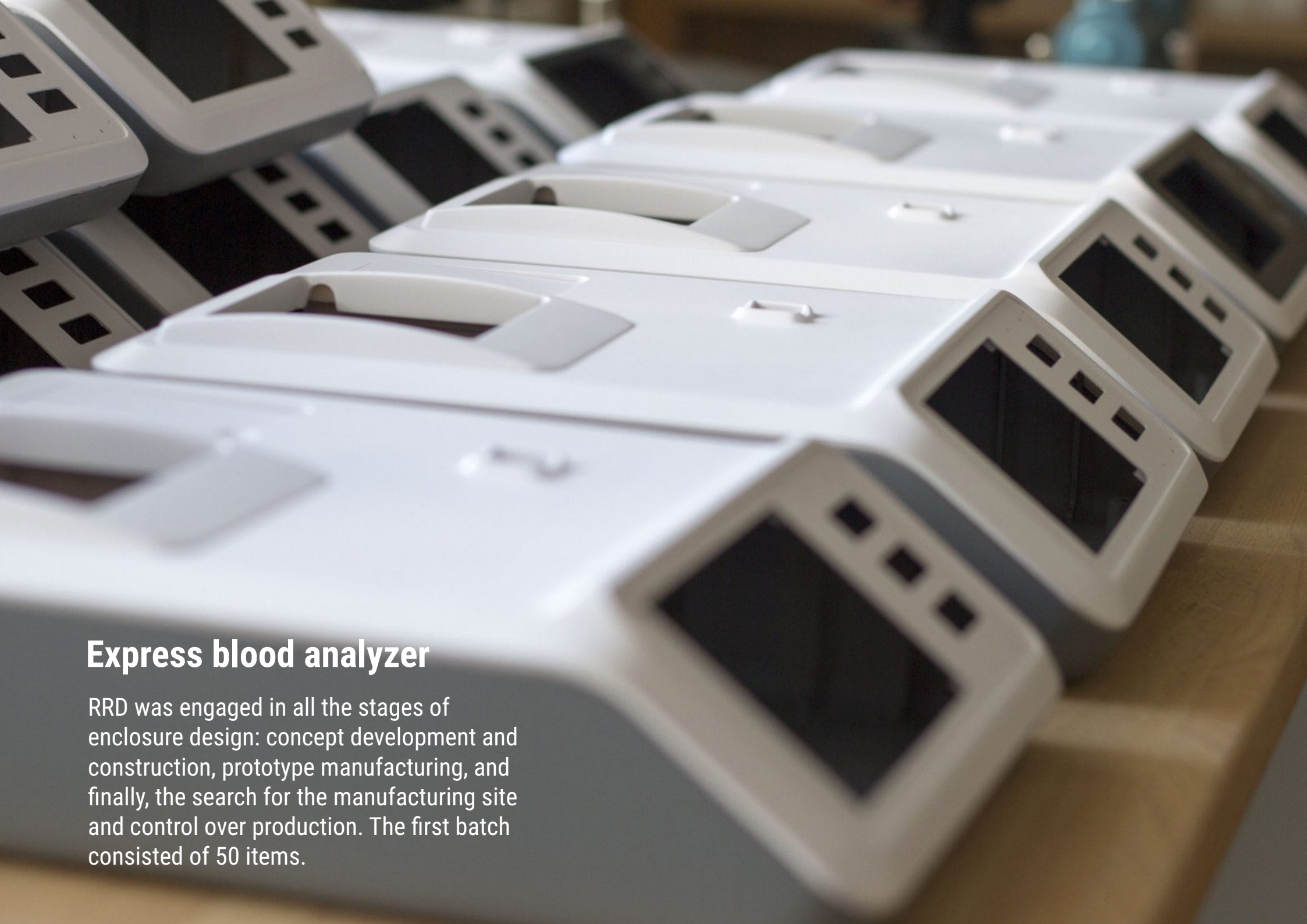
Portable biometric terminal

The main task we had to solve while developing the enclosure design was to make it comfortable to work with. It is a portable device carried around and used for field work (it is used to access the fingerprint database fully). A plastic shock-resistant enclosure, IP55, with a sensor screen stylus.

The image shows two external video card enclosures, one in silver and one in black, standing upright on a light-colored wooden desk. Both enclosures have a rectangular shape with a perforated front panel for ventilation. The silver enclosure on the left has a visible handle on top. The black enclosure on the right is slightly taller and also has a handle on top. In the background, a portion of a laptop is visible on the left, and some cables and a pen are on the right. The background is a plain, light-colored wall.

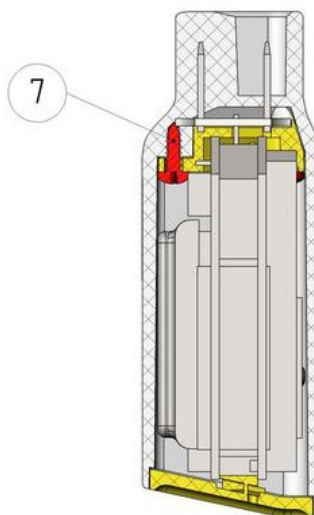
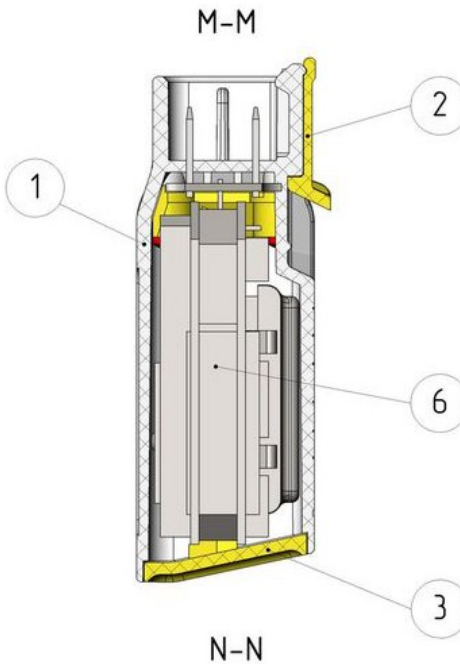
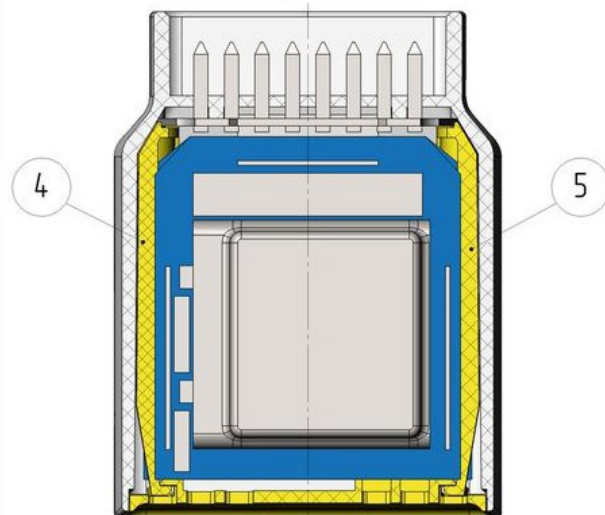
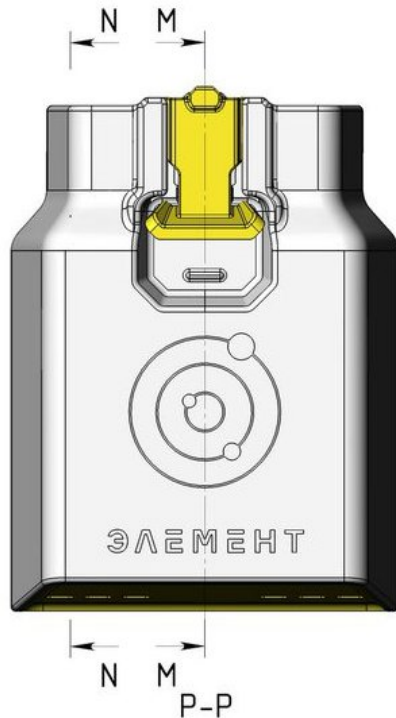
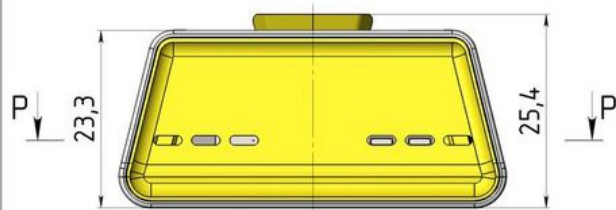
External video card

The Customer voiced apparent requirements for the enclosure design: sharp and dynamic lines and no excess curves. The enclosure cover is fixed on a steel frame and made by aluminum extrusion technology: a perfect solution that is economical and corresponds to the aesthetic and functional requirements. Prototype-tested. Mass production in China for USA sales.



Express blood analyzer

RRD was engaged in all the stages of enclosure design: concept development and construction, prototype manufacturing, and finally, the search for the manufacturing site and control over production. The first batch consisted of 50 items.



Specification for prototype									
Pos	Q-ty	Part name	Drawing	Mat.GOST	Mat.GB	Color	Surface texture	Treatment	Coating
1	1	Body	KRPVK-T-01	ПК	PC	RAL 9010	Shine glossy	Vacuum casting	Painting
2	1	Fixator	KRPVK-T-02	ПК	PC	Pantone 109c	Shine glossy	CNC	Painting
3	1	Cover	KRPVK-T-03	АБС	ABS	Pantone 109c	Shine glossy	CNC	Painting
4	1	Pressing_plates_left	KRPVK-T-04	ПК	PC	Pantone 109c	Glossy	CNC	Painting
5	1	Pressing_plates_right	KRPVK-T-05	ПК	PC	Pantone 109c	Glossy	CNC	Painting
6	1	Plates	KRPVK-T-06						
7	4	Tapping screw 2.2 x 6.5 DIN 7049							



Tracker for a telematics system

Quite often, RRD improved or modified some projects launched by other industrial design companies. Other industrial designers developed the appearance of the OBD-II adapter. RRD did the mechanical design: we developed and designed the mounting assembly (it attaches the adapter to the car connector of the OBD-II standard) and the sign's design and production of a prototype.

Dosimeter-radiometer

This project combines unique and serial solutions. This approach allows a significant decrease in the enclosure price. RRD designed the remote control enclosure with an IP67 indicator and an accumulating module connected to the detecting unit and took ready-made carries (bars). The device is launched in serial production (the production technology is silicon molding).





Industrial router

It was again the situation when we had to modify the work of other industrial design companies: the previous designers' model suggested to the Customer did not correspond to the sketches. RRD improved the documentation for prototype manufacturing and monitored its production.

Conference system

Everything is changing: the manufacturers of the microphone panel for intercom control and communication decided to update the electronic "stuffing" and the appearance of their device. RRD was involved in the design and construction of the housing. The housing is made of plastic, metal base, and anti-slip rubber feet. A characteristic feature of the case is its universal design, with one or two push-button switches.





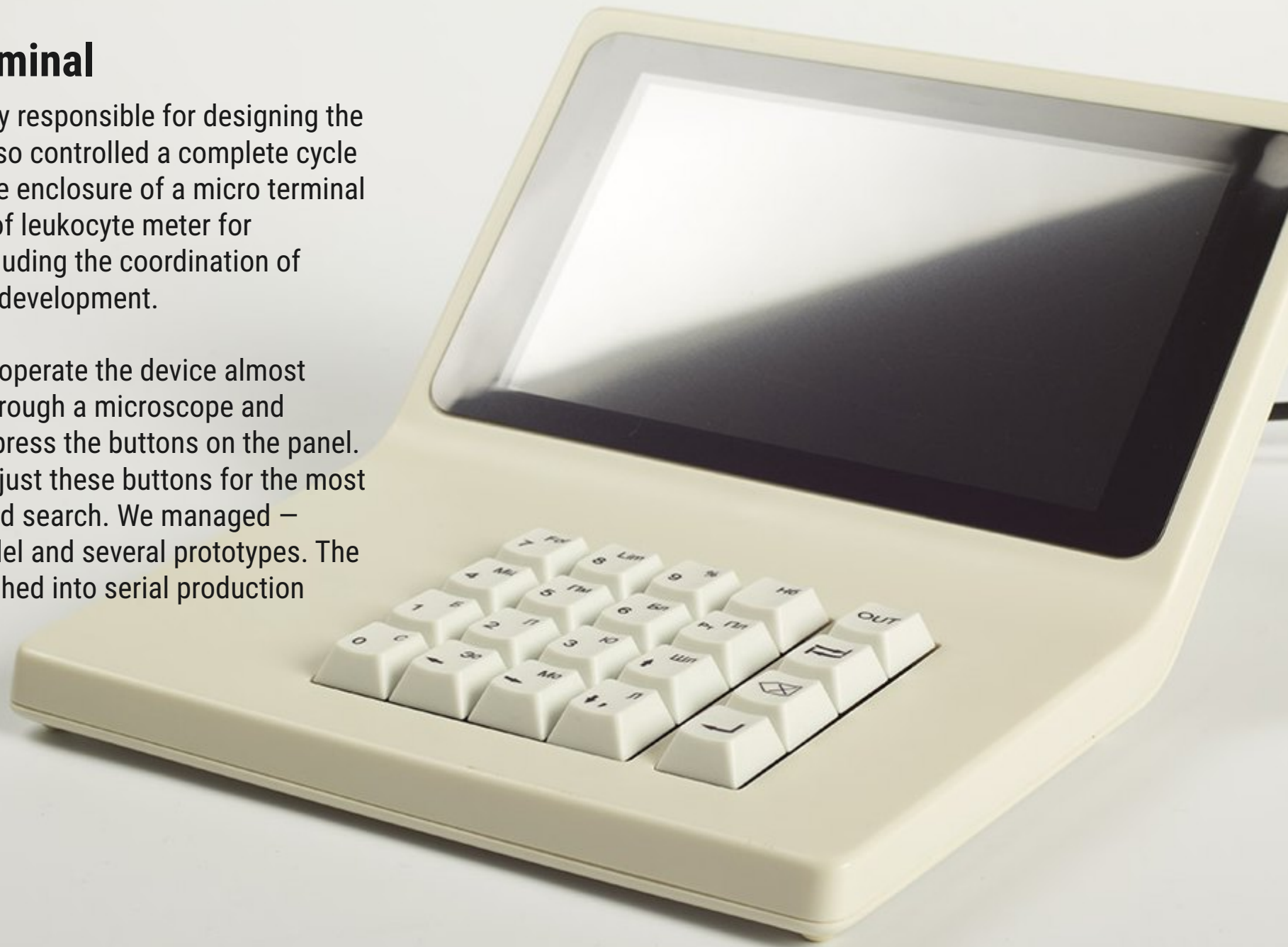
Table karaoke system

Design and ergonomics development for a new model of a karaoke player. The enclosure is made of a film-faced MDF. Prototyping the enclosure and designing the labels and inscriptions on the control panel – were also performed by RRD.

Medica terminal

RRD was not only responsible for designing the enclosure but also controlled a complete cycle of developing the enclosure of a micro terminal – a new model of leukocyte meter for laboratories, including the coordination of electronic parts development.

A physician can operate the device almost blindly – look through a microscope and simultaneously press the buttons on the panel. Our task is to adjust these buttons for the most comfortable blind search. We managed – using a test model and several prototypes. The terminal is launched into serial production



Radionuclide Diagnostic Device

Making an enclosure that emphasizes the device's value. For this project, we are designing a new model of a medical radionuclide diagnostics device for surgical use. The price of such medical devices sometimes reaches several tens of thousands of dollars. Developers aim to reduce the sale price by half at least, or even threefold, as compared to the average market price. That is exactly what we helped them do.





Neural sensor

The neural sensor is a medical device that looks more like an accessory. Before the ideal solution was found, we made many sketches. But the time and effort spent were justified - the device is mass-produced and helps professional athletes.



GPS detector of speed cameras

This time, RRD was only responsible for the design and prototyping. The task was to adapt the existing structure to the components proposed by the customer's engineer specializing in automotive electronics. The production technology was plastic molding.



Remote control

There will be no bold design in this project – too many constraints conditioned by the set of components and particularities of mounting the panel. But we managed to make the thinnest enclosure possible.



Telematics device Remoto

Telematics device that monitors the condition of an automobile via a diagnostic connector OBD II and, at the same time, functions as a router for Wi-Fi4G LTE. The main requirements of the case are visual attractiveness and compact size.



Work time management terminal

The terminal that recognizes personnel by their faces is part of the work time management system. A thick case, a corbel with fixed rotation angles, and damage protection. The production technology is plastic milling for the case and aluminum milling for the corbel.



Wireless intercom connector

A video doorbell with an intuitively comprehensible design. There are no standard buttons, but the guest understands where to push, and the host can see who came for a visit via an installed camera. The case is made of aluminum. Designed by RRD.



Stationary dosimeter

A complete redesign of the old radiometric unit. The disadvantages are obvious: too much metal, too expensive to produce, and too much weight. RRD redesigned the entire design and optimized the frame and subassemblies - the weight was reduced, and the production cost became less due to more automatic operations in production. And less human work.



Bike electrification package

A universal package for the electrification of any bicycle installed without assistance. RRD is responsible for design improvement and production of a test model.



Conference communication system

We develop a system for conference communication that includes control boards for delegates, a chairperson (plastic enclosures), and the central control unit (a metal enclosure). Design requirements are simple: it should indicate that these devices belong to the premium segment. That's it.



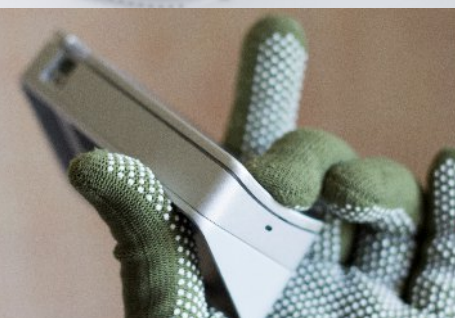
Modular intercom device

We are working on the design, prototype, and renders of a modular intercom panel for an emergency communication system with the class of protection IP 67. There must be the possibility to fix this panel everywhere: on the wall, outdoors, on a column or a pole, etc. The production technology is aluminum extrusion, plastic injection molding, milling, and aluminum casting.



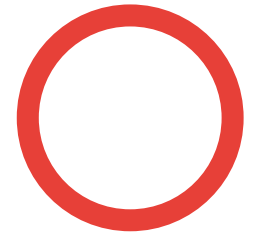


Just send a description of your device – we will find a similar project from our portfolio of +150 completed projects.



Let's get acquainted

INDUSTRIAL DESIGN FOR ELECTRONIC COMPANIES



Developers in Europe and Kazakhstan (Asia), partner factories in China and Turkey. This business format removes restrictions for us. We do not think about “where it is more convenient for us”, but we think about “how to make it profitable for the client”.



Andrey Vostrikov

CEO

Industrial design is not only about beauty but also about money. We have to stay focused on solving the critical problems of our clients – their products must sell well and be cheaper in production but better than those offered by their competitors.

Our job is to make it possible.



Alexey Benner

Industrial Designer



Eugene Arakas

CTO



Anton Romanuyk

Design engineer



Olga Smirnova

Customer manager



Nadejda Bogomolova

Support manager



Pavel Palkin

Industrial Designer



Vladimir Panchenko

3D-modeller

... and also technical writers, product engineers, technologists, 3-d modelers – Formlab is constantly growing and developing.



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