PROM WAD

ELECTRONICS
DESIGN

INDUSTRIAL DESIGN
FOR ELECTRONICS

PROMWAD, electronics design house

We will help you create your product – from product concept to batch production.

Industrial design with Promwad is not just enclosure design for electronics, but also construction development and technical documentation for mass production.

Our designers work closely with engineers and manufacturing specialists. We think through the style and ergonomics of a device, and take into account the engineering limitations of the manufacturing process, agreed deadlines and a project budget.

INDUSTRIAL DESIGN

— Idea and device concept generation: in-depth study of the theme and creation of drafts

— Design and enclosure development, enclosure adaptation for PCB size

— Production of enclosure prototypes by milling and 3D printing

— Production of molds for batch production

— Mass production of enclosures in:

  + The Baltics
  + China
  + Southeast Asia

# SELECTION OF MATERIALS FOR ENCLOSURES

We will help you choose optimum materials, taking into account
the electronics enclosure design needs, your preferences, and the project budget.

— **Plastics:** ABS, ABS+PC, EK, PC, PE, PVC, PMMA, polyamide plastics, etc.

— **Timber:** various wood species, including composite combinations with plastic

— **Metals and alloys:** manufacturing enclosure parts
from stainless steel, aluminum, aluminum-magnesium alloys,
using stamping, molding, milling, extrusion molding

We use any material suitable
for industrial processing, including
rubber, ceramics, and glass

ANALYSIS, 3D MODELING, SIMULATION
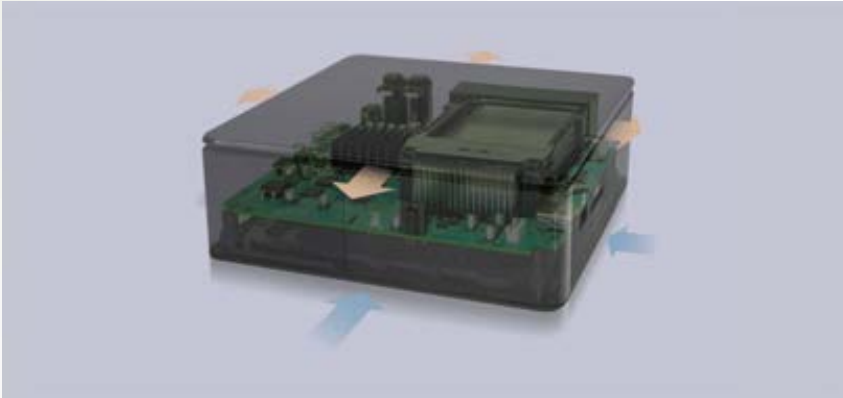
We provide a guaranteed manufacturing result through:

— Thermal simulation of a device

— Molding simulation and stress simulation of the innerparts of the enclosure

— Analysis of deformation of the enclosure parts in extreme temperatures

— Explosion and shock simulation in three dimensions
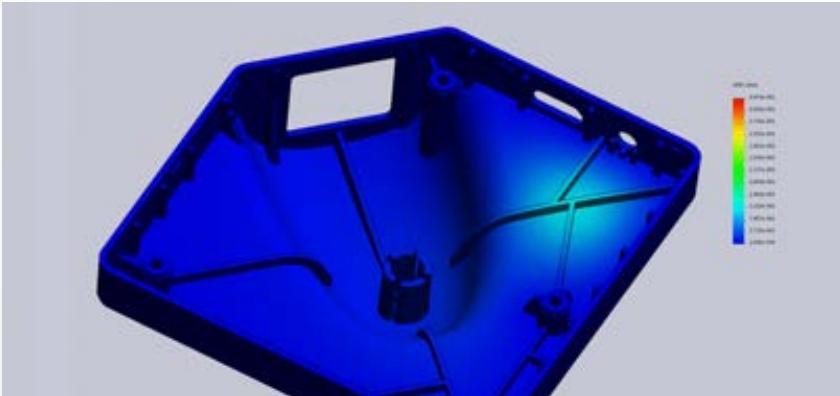
Result: no molding defects and a high durability of the enclosure.

Implemented projects
CONSUMER ELECTRONICS

PROMWAD ELECTRONICS DESIGN

GSM adapter for two SIM cards in iPhone

A gadget for simultaneous operation of two SIM cards in Apple smartphones. It is 6 cm in diameter and has soft touch coating.

The internal compartments are opened by turning the rim of the "puck": they include a micro USB connector for charging the battery, a power button, a SIM card holder and a SIM tray pin in iPhone.

Simka

nano

Assembeld in China   Model S1529
FCC ID: BCG-E2694A   IC: 579C-E2694A   IMEI: 358031058896765

Portable fish finder

Upon the order by a company from Russia, we designed a portable echo locator paired with a smartphone.

It identifies fish presence in a chosen area of the water body, creates a fishery map, and detects popular places for fishing.

Network device
for connecting Bluetooth sensors

This device is paired with Flower Power mobile gadgets and helps take care of plants. The customer is Parrot based in France.

A shockproof enclosure withstands a drop onto concrete from a height of 1 m.

Lapka, a set of sensors for iPhone

A radiometer, thermometer, nitrate meter, electromagnetic field and humidity gauges. They are connected to an iPhone and an iPad via the audio jack.

We have developed an enclosure design, chosen the materials and prepared the set for batch production.

Lapka breathalyzer

A premium-class accessory for Apple mobile devices, which measures alcohol concentration in the blood through breathing. The user's hand functions as a mouthpiece.

The enclosure is made of ceramic. It has proved to be a unique and durable device, which is also pleasant to the touch. The inner enclosure of the breathalyzer is made of polypropylene.

Irma glucometer

We have developed and launched into production a device for measuring glucose concentration in human capillary blood.

Portable glucometer
for iOS and Android smartphones

A device for measuring glucose concentration in the blood, connects via an audio connector. The test results are displayed in a mobile application.

DO-RA mobile dosimeter

It was developed for Eurasia Intersoft.

An application was sent
to the Guinness World Records book
to recognize the DO-RA dosimeter
as the smallest one in the world.

— It is paired with an iPhone
— Measurements are displayed in an iOS app

DO-RA.Chups, a dosimeter-radiometer

An apple and a popular candy were used as the prototypes for this enclosure design.

The one-piece enclosure has no battery. Inside the device, there is SBM-21, a miniature Geiger-Muller radiation counter made in Russia.

DO-RA.uni,
a multi-purpose cross-platform device

A miniature device for measuring radiation. It is connected to any mobile phone, tablet or laptop with a standard audio jack.

Polimaster electronic dosimeter

A professional dosimeter with a Geiger-Muller radiation counter.
It works without battery replacement for up to two years.

The device comes in various enclosure colors for a variety of users:
amateurs, law enforcement agencies and emergency services.

Personal GPS navigator
with an electronic compass

A device for tourists, mushroom pickers, and retired people. It brings the user back to the starting point or to a specified point in a coordinate system.

Implemented projects
MEDIA AND ENTERTAINMENT

Full HD transmitter for a studio

A device for reporters: it sends reports to studios from any point in the world. We created a metal enclosure with a mount for a battery pack.

IPTV digital set-top box

A set-top box with OTT and PVR (3D\HD video).

Russia's largest communications operator Rostelecom and the MTS mobile operator use this device to provide IPTV services all over the country.

The project was commissioned by SmartLabs.

— Cooling
   without enclosure perforation

— HDD replacement
   without disassembling the device

— An output of over a million STBs
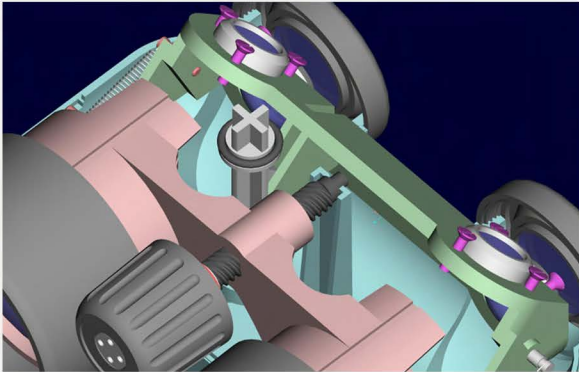
Binoculars with a discrete magnification power of 2.5:5

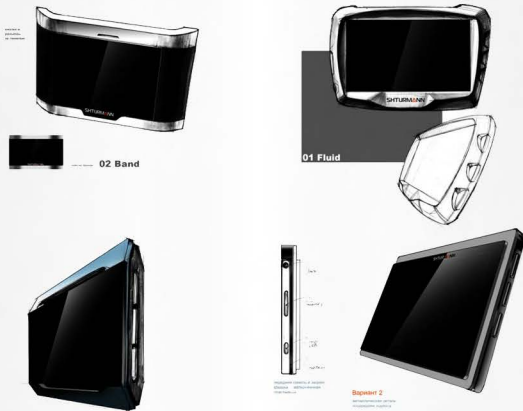to watch sporting events during the day and at dusk.
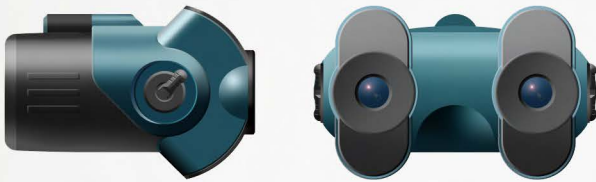
— Protection against splashes

— Assembling without screws

— Compact enclosure

— Variable multiplicity of switching

Implemented projects
AUTOMOTIVE ELECTRONICS
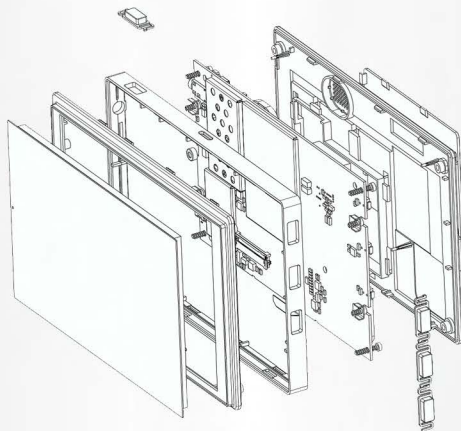
Automotive GPS\GLONASS device for communication and navigation

A dual-system navigator with mobile support and 3G.
Control: 5-inch touch screen and Android OS.

— Slim size: 16 mm thick
— Convenience: buttons with spring elements
— Durability: aluminum chassis inside the enclosure, protective glass on the screen

Onboard automobile data logger

A portable scanner to control the vehicle condition. It is installed into the OBD-II connector, resistant to shock, vibration and temperature extremes.

The project was commissioned by an American customer.

Key chain for car alarms

The project was commissioned by a Russian electronics manufacturer.

We focused on the dimensions of the finished PCB.

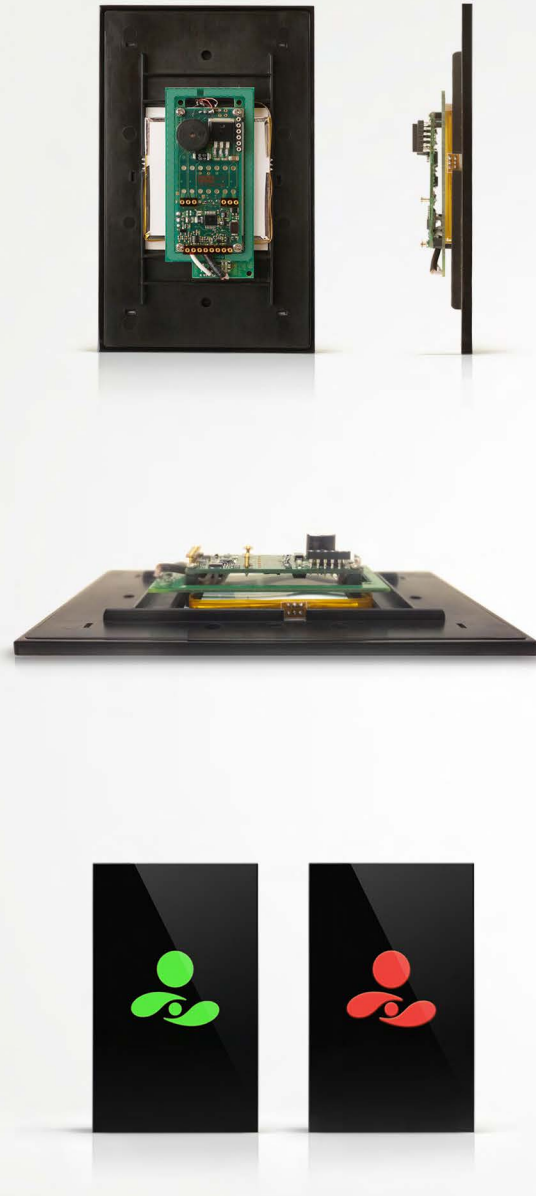At the stage of preliminary research, we created 8 3D enclosure versions

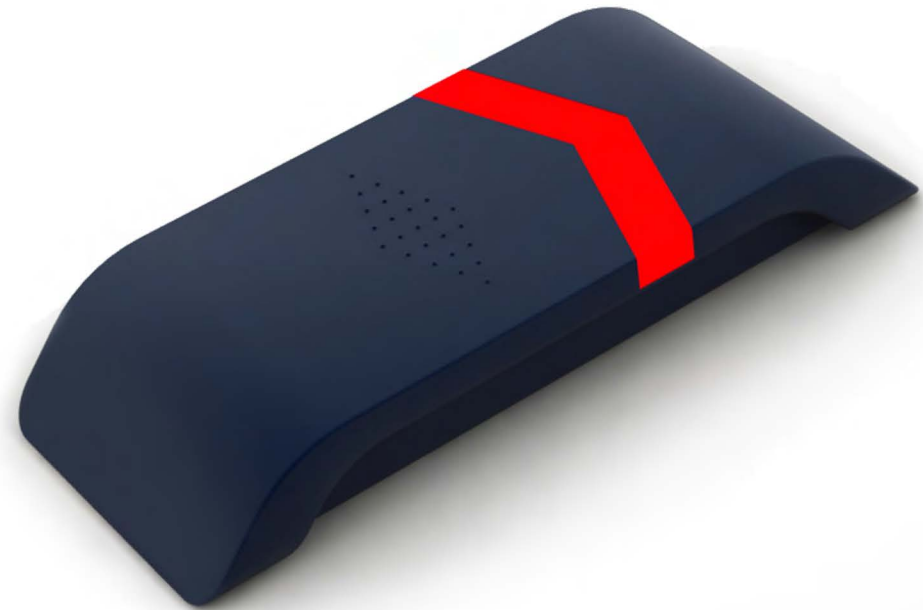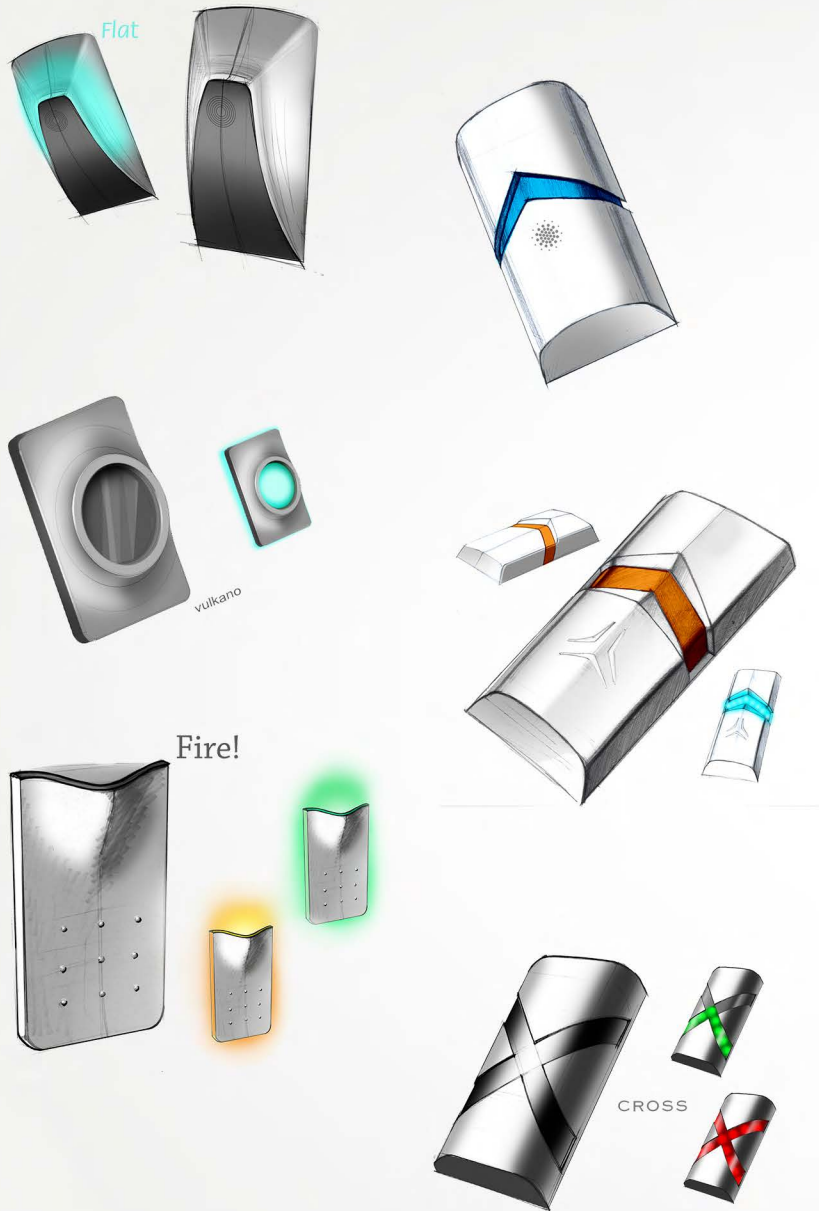Implemented projects
AUTOMATION AND SECURITY

Access control reader

The device controls entrance into the building of the State Oil Fund of the Republic of Azerbaijan (SOFAZ).

Contactless access card reader

A device that controls entrance into offices.

Flat

vulkano

Fire!

CROSS

Implemented projects
TELECOMMUNICATIONS

Navigator + phone + walkie-talkie

A shockproof enclosure with water and dust protection.

Low production costs through optimizing the bill of materials and choosing standard manufacturing technologies.

Smart Station

All-in-one solution: internet + telephony.
Commissioned by Emzior.

— Low production cost was ensured

— IMB (in-mold decoration) was used

VoIP + WLAN network router

A modern car served
as a prototype for this design.

— Optimum cost in batch production
— Easy to assemble

A multi-purpose LAN/WAN/Wi-Fi router.

The enclosure design was developed based
on temperature testing.

Digital TV set-top box

— A simple and compact enclosure at low cost

— The device features the customer's corporate colors
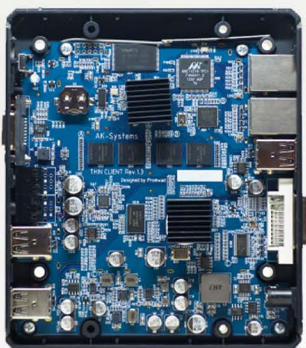
— A slot for a smart card

Intel Atom-based thin client

A device for use in networks with a client-server architecture or terminal. Designed to replace expensive personal PCs in offices, banks and call centers.

"Modest" design
for inconspicuous operation
in the office

AK1100 thin client

A device for use in networks with a client-server architecture or terminal. Designed to replace expensive personal PCs in offices, banks and call centers.

Based on the temperature testing, we designed a case with passive cooling of electronic components.

Mounting on the back panel in compliance with VESA

IP-Plug mini server

We developed the first commercial plug computer in Russia.
It can be used as a multi-purpose gateway for smart home sensors.
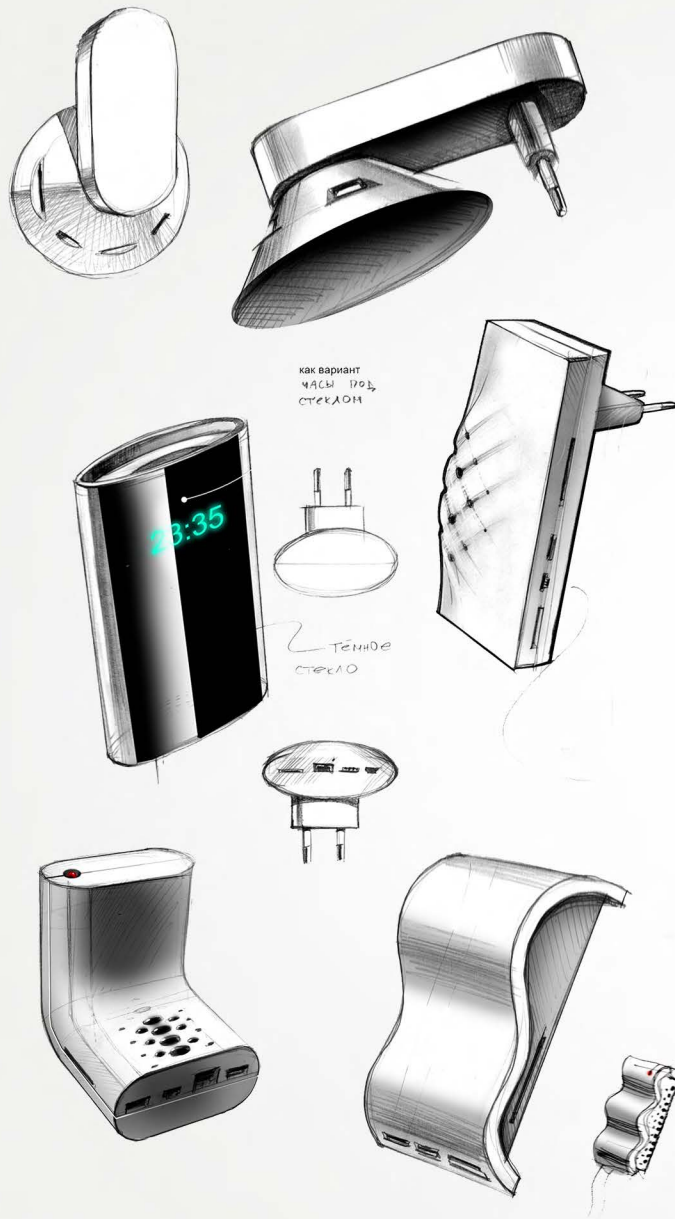
WHY PROMWAD?

Field supervision: our designers control the entire process up to the start of production.

15 years of experience: we have completed 325+ projects, with over a million batch devices produced.

Well-coordinated team: industrial designers, design engineers, and manufacturing engineers work together at all stages of the project.

Workability: we do not generate product ideas that cannot be realized; our designers work in new-generation CAD CREO (formerly Pro / Engineer).

Contract manufacturing: we choose an optimum production site for manufacturing prototypes and batch production.

We will design, manufacture and deliver your enclosure worldwide, controlling quality, costs and adhering to the agreed deadlines with any batch size.

PROMWAD, innovation company

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electronics design house
in Eastern Europe.

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