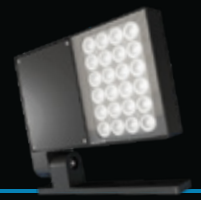
VITRULUX
group

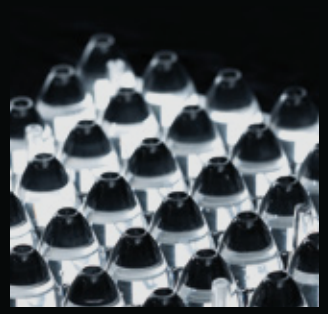
The company overview

Innovative lighting systems



Founded in 2004

- Vitrulux Group is a leading domestic developer and manufacturer of the entire range of lighting equipment.
- With its in-house research unit, R&D department and full-cycle production facilities, Vitrulux creates lighting systems of any degree of complexity.
- The company uses its own patented technologies and unique developments in the field of optical light distribution systems, electronic component modules, and a flexible manufacturing platform.
- Advanced technologies and equipment and a science-based approach to production allow the company to guarantee the highest quality and long service life of its products.



Vitrulux site

https://lighting.vitrulux.com/

Vitrulux has participated in many large-scale projects in Russia. Among our projects are the following landmarks: the Luzhniki Sports Complex, Zaryadye Park , Skolkovo Innovation Center, My Street Project [Moscow], the Karpovka River Embankment in St. Petersburg, Nizami Ganjavi Park [Derbent], design of public spaces in a number of cities in Tatarstan, and others.

For more than 10 years VITRULUX has been working together with Gazprom Neft company, being an exclusive manufacturer of lighting equipment for more than 2,000 fuel filling stations of the Gazprom Neft network.

Smart City

The exponential growth of disconnected subsystems of urban infrastructure requires a substantially new approach to their organization.
The smart city of the future – Smart City – must be comfortable, safe, and beautiful.

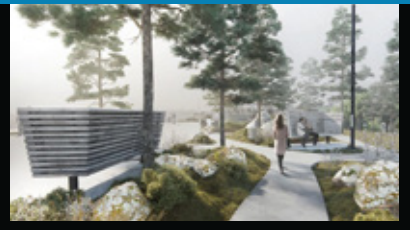
Public spaces of cities of the future

Vitrulux Group focuses much of its intellectual and production capabilities on the implementation of the Smart City concept.

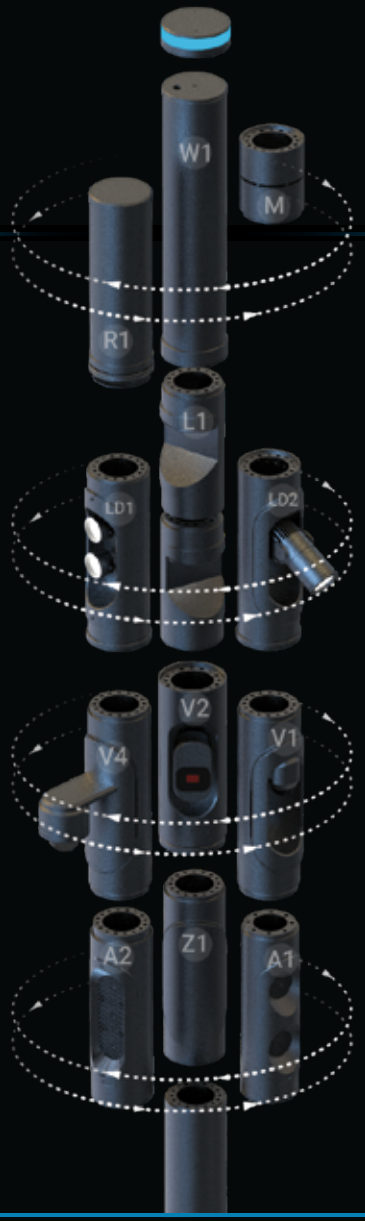
- The concept involves upgrading the city's lighting network to a decentralized, stress-resistant infrastructure network that serves as the basis for supporting superimposed services, from street lighting and communication services, to the control and navigation of urban unmanned vehicles and UAVs.
- Vitrulux developed the Smart-pole and Smart-lite series of multi-functional modular supports that are visually indistinguishable from conventional lighting poles and can be flexibly configured for lighting, information, video surveillance, navigation, notification, communications (WiFi, 4G–5G, IoT), etc.
- Our solutions not only optimize the process of urban development but also, through the standardization of protocols and components, facilitate the subsequent operation of the installed products and interaction with operators of information and telecommunication services.
- Smart and light poles by Vitrulux, which have become the embodiment of the new progressive trend of industrial design and technology, are approved by the city planning committees in many Russian cities.

Intelligent Solutions for Smart City.

https://www.youtube.com/watch?v=cVyYI2QzYg0



Smart Pole



The smart pole technology by Vitrulux is a synthesis of ergonomics and modern technology; it combines a modular approach with flexibility and a variety of technical solutions contained in a refined elegant form.

The main feature is the modular multifunctional support that allows its functions to be easily modified and supplemented according to the tasks to be carried out, during the design and the decades of operation. This makes it possible to optimize both the process of urban development and the future use of the built projects, including in interaction with various operators of information and telecommunications services.

Due to the availability of a unique set of antennas installed in the modular multifunctional support, it can perform the functions of a cellular base station.

Multifunction modular lighting Pole.

https://www.youtube.com/watch?v=0G3L9CUjX6o

Commercial delivery for VimpelCom JSC, Rostelecom JSC and Skolkovo International Medical Cluster was performed. An agreement on strategic cooperation with Rublevo-Arkhangelskoye JSC was signed.

Modules can be turned to a desired angle without disassembling the pole

Wi-Fi

Cellular service

Highway lighting

Meteorological module

Pedestrian lighting

Architectural lighting

Video

Audio

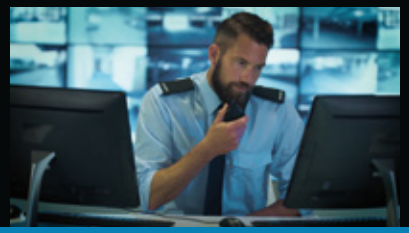
Charging

Video analysis

Information display

Lighting control

Open&flexible architecture



Aero Systems

Drones are controlled by the Smart Pole System

Integrated into Smart Cluster

Drones are controlled by the Smart Pole System. Vitrulux Aero Systems coaxial drones are being produced and integrated into the urban environment. Five types of compact coaxial drones with fully automatic takeoff and landing are being designed by the company for mass production.

The Aero System will help add a host of additional services to the city's infrastructure: site monitoring, remote video surveillance, delivery of medicines and rescue equipment, etc. The system will identify and record incidents, and even tackle some offenses.

The development is at the testing stage

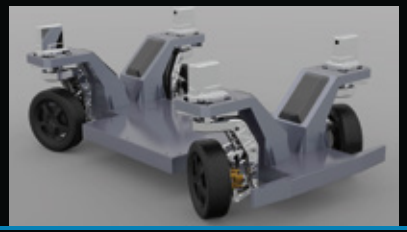
Vitrulux Aero Systems

https://www.youtube.com/watch?v=aFi6Vp10PwA

Drone integration module

City Shuttle

Interchangeable body for various purposes



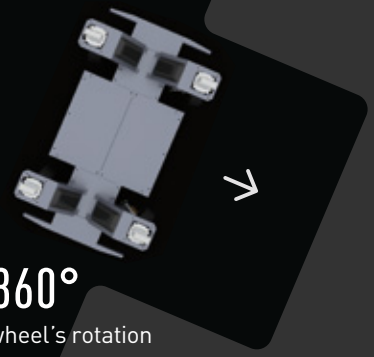
Ultra Precise Real Time Positioning System (UPRTPS)

An uniform transport platform for Smart City

Implementation of the idea of future freedom of movement

One of the major problems of any modern metropolis is the growing traffic, which leads to traffic collapses, complicates logistics, and degrades the environment. Modern urbanism sees a possible solution in the abandonment of private cars in favor of automated public transport. Coordination of traffic consisting of numerous passenger and freight shuttles is performed by the ultra-precise real time positioning system (UPRTPS) based on low-powered radio beacons mounted on light poles. Geo-positioning is determined by triangulating signals from multiple transmitters and provides accuracy up to a centimeter.

Adding GPS, GLONASS, RTK and other systems can improve the efficiency of basic UWB several times. This structure of traffic control and management will help public transport to replace private cars, without compromising the comfort of metropolis residents.



360°

Each wheel's rotation

2011 R&D — 03.2021 UPRTPS testing — Shuttle development: 09.2021 — 03.2024

Vitrulux VITRUBUS teaser

https://www.youtube.com/watch?v=9HvdyssUm1I

The R&D project was launched in November 2011. To date, the UPRTPS system has been created and tested. Since August 2021, Vitrulux has been developing a passenger and freight shuttle with an integrated control system and an ultra-maneuverable chassis, capable of turning 360 degrees on the spot.

Research and development

Vitrulux Research Institute

The new level of solutions and capabilities

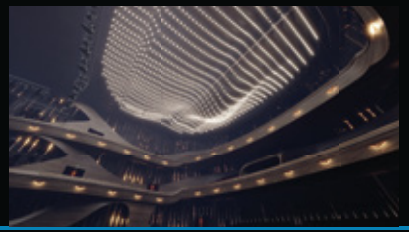
The rapid growth in the number and complexity of scientific and applied tasks, as well as research and development activities, led to the spinoff of the development department into a separate enterprise focused on solving scientific and engineering problems related both to the creation of new products and technologies and to the general organization of infrastructure and living environments of cities of the future.

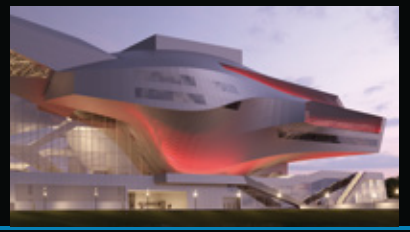
The activity of the enterprise covers a wide range of tasks: development of dialogue and exchange of competences with the research community, development and management of implementation of new solutions, registration of results of scientific and development activities, and protection of intellectual rights.

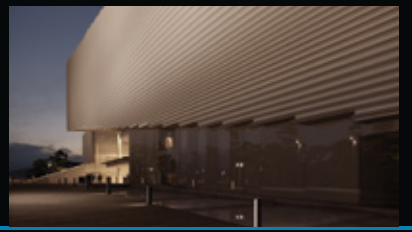
Within the institution, specialists are involved in the development of products and subsystems of communications infrastructure and antenna-feeder devices, light sources, lighting control systems, power supply and energy storage devices, security, artificial intelligence elements, etc.

The young and ambitious team of Vitrulux Research Institute aim to be at the cutting edge of scientific and technological progress and make a significant contribution to solving the problems of urbanization.

Construction design

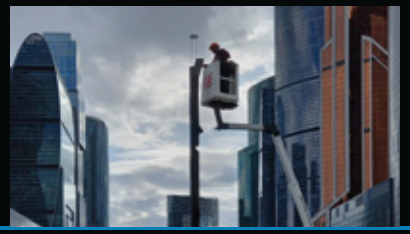






- Full range of design works for construction of lighting systems of different purposes and complexity.
- Development of concepts of architectural and artistic lighting, visualizations, preparation of design and working documentation.
- Interior lighting systems for buildings, exterior lighting, architectural and artistic lighting, architectural illumination.
- Obtaining approvals of design documentation from supervision bodies and resource supplying organizations. Author's supervision of construction works.

Lighting concept Museum and Theatre-Educational Complex. Vladivostok



Construction

Vitrulux

Construction design services

Vitrulux provides a full range of design works on lighting systems of different purposes and any degree of complexity.

We offer both comprehensive and individual solutions: from development and production of interior and exterior lighting of buildings, architectural and artistic lighting, visual effects, to creation and implementation of original lighting concepts.

We prepare all design and working documentation, obtain approvals of design packages at the supervision bodies and utility companies, and provide author's supervision at the construction stage.
The company has the required number of high-quality specialists for installation of:
– indoor, technical, office, design and exclusive lighting
– exterior lighting of buildings and structures
– street lighting.

GASPROMNEFT by VITRULUX

https://www.youtube.com/watch?v=Exz4dKj-kXU

VITRULUX employees have all necessary permits and authorizations for successful work in projects of any degree of complexity, from underground tunnels to stadiums, and have experience in working at public and private facilities.

Startups

Sound laboratory

Lab

Music analog recording and playback

VitruVox

In recent years, there has been a growing interest in analog sound recording worldwide. The "back to the future" trend (from digital to tape) is gaining more and more fans among professionals and amateurs alike.Vitrulux has created a whole line of products, including unique developments in magnetic recording and playback, for studios and audio enthusiasts. The company is now completing the construction of its own analog recording studio and sound laboratory. There are plans to open museums of vintage equipment in Russia and Cyprus.

Stage: Construction

Mobile app

AR

Fashion and fitness industry

wear.me

A mobile app that determines the body parameters by photo opens up a fundamentally new approach to shopping. The virtual fitting room on the smartphone screen allows you to instantly determine your size, find out online whether the selected clothes or accessory fit perfectly, without physically visiting the stores. You can also use the app to track changes in your figure.

Stage: Testing

Mobile app

AR

Medicine, pediatric orthopedics

Orto-Care

Mobile 3D laser scanning of the foot will make it possible to provide individual orthopedic footwear for children anywhere in the world without visiting a doctor or special institutions. Thanks to the use of remote diagnostics and virtual technologies, the methodology can be used to create special models for the prevention and treatment of foot pathologies, as well as other medical indications.

Stage: Testing

Bronislav V. Gorlinsky
the founder of the Company

Specialty: wave physics, automated control systems, economics and finance.

External consultant to the Ministry of Digital Economy; he was part of the development team with the All-Russian Naval Academy for the implementation of LED lighting on ships and vessels of the Russian Navy.

Consultant to the Ministry of Digital Development, Communications and Mass Media of the Russian Federation, member of the expert council on the implementation of smart poles.

Author of patents for inventions and technologies in lighting solution optics, including international patents.

At present he is the owner and manager of Vitrulux group of companies, which includes both production and research and development facilities.

Member of the Russian-Chinese Business Council.
www.rcbc.ru

Vitrulux

RUSSIA, 195030
St Petersburg
ul. Kommuni, 67 BO

Sales department
Laboratory
Production

tel +7 800 3338385

info@vitrulux.com

vitrulux.com