



Kruzhok movement in Russia

Communities for education in hi-tech sphere

Russian «Kruzhok» is self-organized
youth community in tech sphere

Korolev and Zhukovsky launched Kruzhoks
which grew into full-scale aerospace industry



Modern Russian Kruzhoks is a unique system of youth involvement in spheres of technology which are not yet mainstream in education: neurotech, robotech and space tech

Members of Kruzhoks launched a Sputnik (satellite) into space, won a number of international competitions and much more. They are supported by National Tech Olympics, Sirius Center, a network of 142 Quantoriums.

Synthesis

RUSSIAN ENGINEERING SCHOOL

- Korolev – he launched into space Sputnik (1st satellite in history) and Yury Gagarin (1st man in space)
- Kalashnikov (he invented Kalashnikov rifle AK-47)
- Sikorsky (1st single propeller helicopter)

PEDAGOGIC SCHOOLS

- Vygotsky (one of the most prominent psychologists of 20th century)
- Elkonin and Davydov (founders of developmental learning)
- Altshuller (author of internationally renowned TRIZ method)

«CLEVER Programmable drone kit

» Copter kit for schools, vocational colleges, universities and children's additional education institutions. A set of teaching and learning tools for teachers and students. The leader of Russian aerial robotics education market.

Course duration: 1 year

Students per kit: 1-3 persons

Recommended age: 12-25 years

Disciplines:

- Robotics
- Programming
- Copter engineering





«Eyecar» Educational Self-Driving Car

Modular kit of autonomous car based on computer vision for schools, universities and children's additional education institutions. Students learn to solve real practical tasks of self-driving car programming: detection and recognition of pedestrians, traffic lights, road signs, etc.

Course duration: 1 year

Students per kit: 1-3 persons

Recommended age: 12-25 years

Disciplines:

- Robotics
- Programming
- Computer vision
- Car engineering



BiTronicsLAB

Digital laboratory for neurotechnologies

Digital laboratory for biology, neurotech and human-machine interaction for schools and universities. It is compatible with Arduino and Raspberry Pi and consists of over 35 practical engineering and research cases including creation of bionic prosthesis, neuro arm wrestling, neuro sumo, neuro windmill and many others.

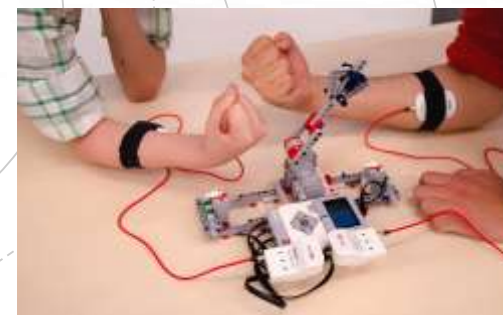
Course duration: 2 years

Students per kit: 1-3 persons

Recommended age: 12-25 years

Sensors available:

- EMG
- ECG
- EEG
- EDA
- Pulse





ORBICRAFT

Space Education Centre

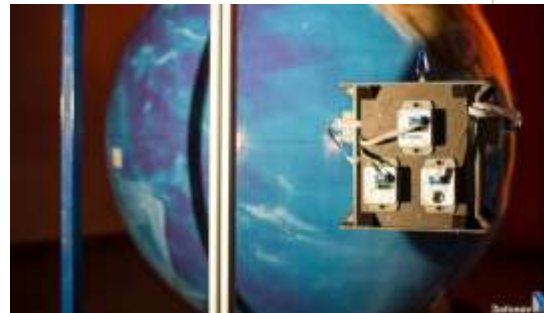
Space Career Navigation

From the basics of physics and engineering to launching real spacecraft to Earth's orbit. Educational space flight simulator and professional spacecraft simulator, school-based planetariums and hands-on training with professional tools for monitoring of Earth's surface, school and university level spacecraft based on professional microsatellite platforms.

Course duration: 2 years

Recommended age: 12-25 years

Broad range of competitions,
project schools and
university-level projects





S.T.E.M.
games

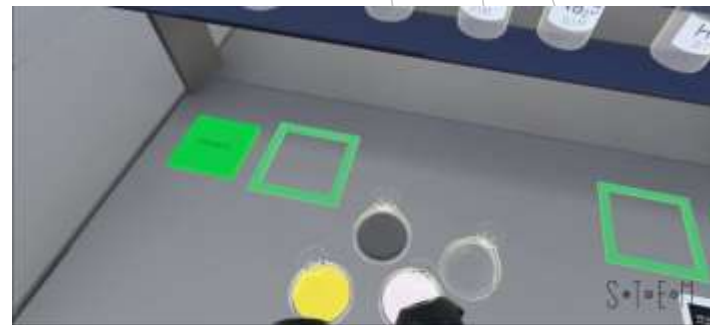
VR Chemistry Lab

VR Chemistry Lab is a software solution that provides cheaper and safer approach to creating and maintaining high-quality chemistry laboratories in schools and universities.

VR Chemistry Lab uses virtual reality headsets and manipulators for most realistic and close-to-life experience.

Key benefits:

- Freedom to make mistakes
- Complex chemical model
- Individual educational track for any student
- Detailed instructions for teachers and students
- Just switch on your PC and you're ready to go



«Intelligent power system»

MicroGrid Educational System «Intelligent power system» simulates the operation of the power system of a small city and allows to demonstrate the main stages of planning and dispatching a real power supply network.

The search for non-standard solutions for power supply networks using alternative energy sources and microGrid technologies is possible.

Key benefits:

- Systems thinking development
- Development of skills of working with complex systems combining maths, physics, programming and economics





«MUR» Underwater robot kits

Four underwater robot (AUV and ROV) kits for schools, vocational colleges, universities and children's additional education institutions. A sets of teaching and learning tools for teachers and students. The leader of Russian underwater robotics education market.

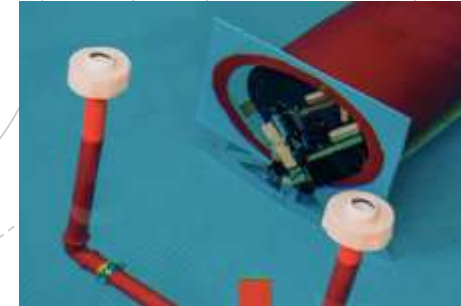
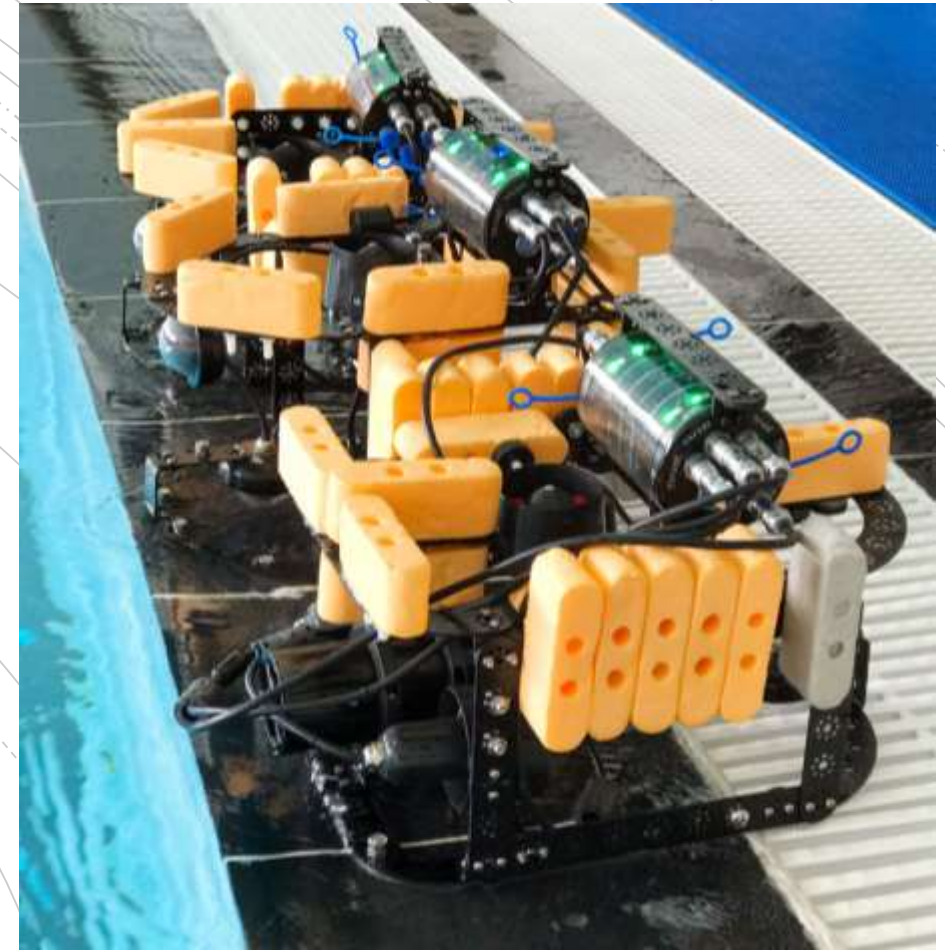
Course duration: 1-4 year

Students per kit: 2-10 persons

Recommended age: 6-25 years

Disciplines:

- Robotics
- Programming
- Computer vision
- Mechanics



Our services

Each project provides:

- Equipment supply and detailed toolkits
- Teacher and mentor trainings
- Organization of project schools
- Online support
- Development of cases from real industry to be solved by students and young specialists
- Integrational decisions in the field of technological education

A large red speech bubble graphic with a white outline, pointing downwards. The word "OFFER" is written in white, bold, sans-serif capital letters inside the bubble.

OFFER

SCHOOLS AND COLLEGES NEW LEVEL OF EDUCATION

- Career Navigation based on practical experience
- School projects closely resemble work of real engineering teams in cutting-edge industries
- High school graduates already have a complete set of professional skills

UNIVERSITIES PREPARE ENGINEERS ON DEMAND

- Cross-Uni bachelor programs connected with industry
- Student projects close to industry and real market
- Preparing for and joining the international engineering competitions

EXAMPLE

Team of 15-17 y.o. schoolchildren educated neural network on a sample of 5000+ oncological cases to forecast patient perspectives

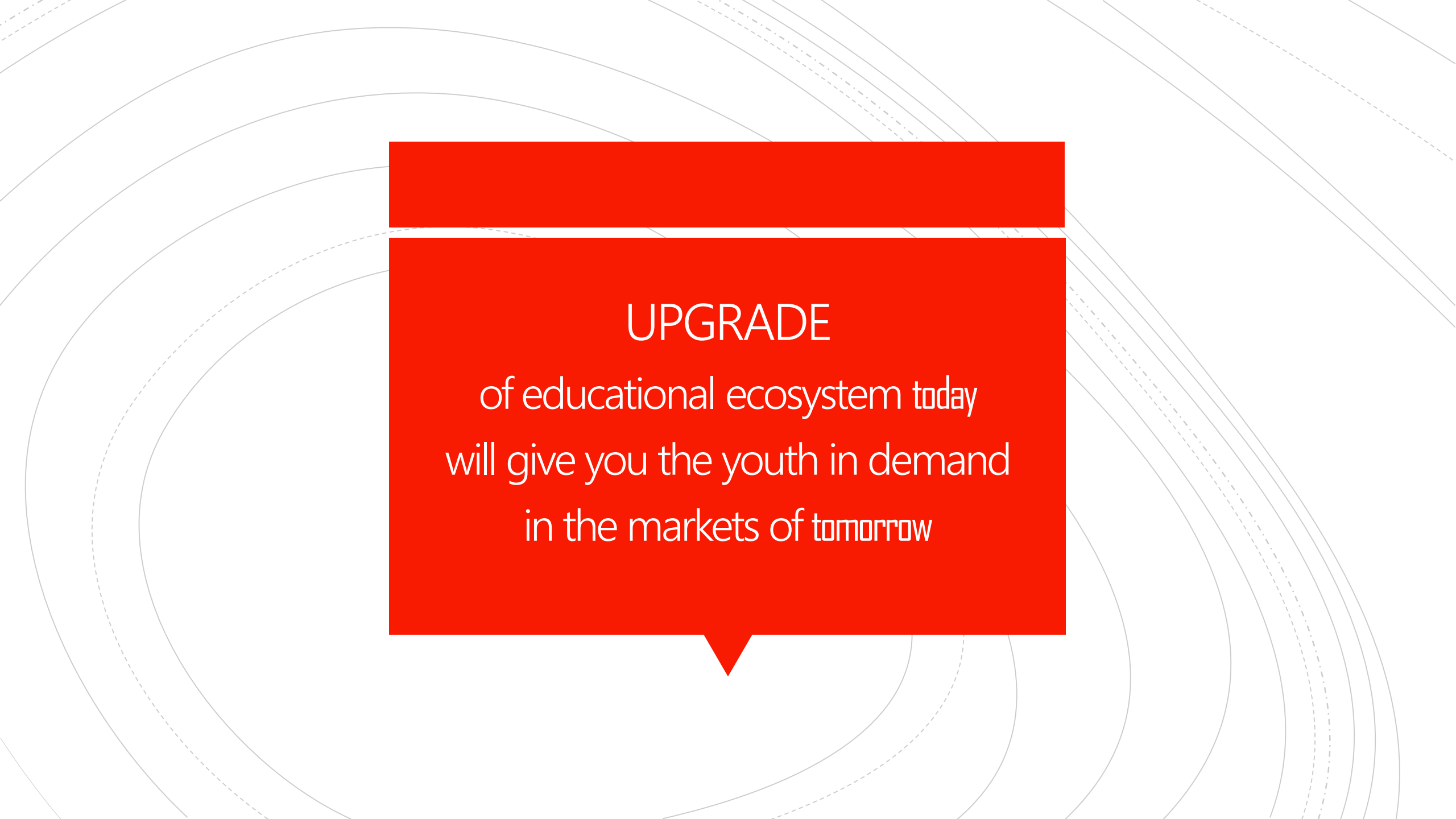
OFFER

RETAIL

- Retail market is also viable with potential sales of up to \$ 50,000,000 / year.

REGIONAL MINISTRIES

- We will implement ecosystem of practice-based education. It will prepare specialists with skills required to succeed in 4th industrial revolution.

The background features a series of concentric circles in light gray, some solid and some dashed, creating a ripple effect. In the center, there is a red speech bubble with a white outline. The text is contained within this bubble.

UPGRADE

of educational ecosystem today
will give you the youth in demand
in the markets of tomorrow

Our partners

The best Russian Universities



VEB INNOVATION



We'll be happy
to collaborate!

Let's talk!