

«Scientific & Production Enterprise Spaitech», LLC

# SPAITECH





Scientific & production enterprise «Spaitech», LLC has been successfully operating on Ukrainian market since 2012 and now is a leading developer and producer of innovative unmanned aerial complexes from composite materials.

The company's market-oriented strategy is producing high-tech unmanned solutions, which have no analogs in the world, ongoing commitment to excellence and quality control of own products at all stages.

Which is why, unique unmanned aerial complexes of «Spaitech», LLC are recognized by Ukrainian and world designers and engineers, have proved as highly effective in a real battlefield situation, and have been successfully applied by Armed Forces of Ukraine, volunteer battalions in Anti-Terrorist Operation zone and other hot spots.

«Spaitech» products are also widely used in carrying out of civilian tasks in various spheres: agriculture and forestry, construction of objects of various types, for control of engineering structures, and also monitoring environmental conditions.

Scientific production enterprise «Spaitech» has been awarded multiple diplomas and medals as a developer of high-tech solutions and a producer of high quality unmanned aerial complexes. The company was awarded a national certificate "Leader of the year" in 2017.

The company staff consists of professionals and innovators, talented developers and highly qualified engineers, specialists and authors of numerous effective high-tech solutions, who regularly improve their skills and expand the opportunities for their products.

«Spaitech» is a scientific and production enterprise of complete cycle located in Odessa, Ukraine. However, high production scalability and possession of all technologies allow rapidly producing any capacity for production worldwide and presenting the required products quantity in the shortest possible time.

«Spaitech» unmanned aerial complexes are well-known and have proved to be good in operation not only in Ukraine but also abroad.





### **CUSTOMERS**

The Ministry of Defence of Ukraine

Ministries of Defence of foreign companies

Unmanned aerial complexes of «Spaitech» company are actively used in real combat situations and proved to be effective in modern warfare conditions.



## **SPAITECH**

## **PURPOSE**

Make to global security by the creation of unique unmanned solutions.

#### **VALUES OF THE COMPANY**

#### **LEADERSHIP**

«In the activity, we strive to leadership and see ourselves as a leader for the rest. Our partners are industry leaders».

#### **MAXIMALISM**

«We seek perfection continuously improving our products and improving ourselves without recognizing any compromises».

#### **UNIQUENESS**

«We create unique developments which have no analogs in the world. We use unique developments of our partners for our products».

#### **TECHNOLOGICAL EFFECTIVENESS**

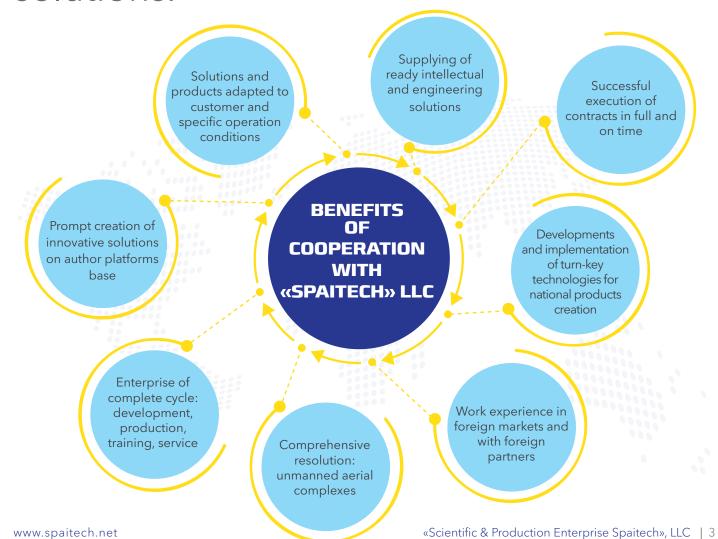
«We create unique technologies. Our developments are technologically effective in production».

#### **SAFETY**

«Our developments ensure safety and save human life. Our products usage is safe and requires no human presence».

#### **HONESTY**

«We are honest and open with our workers and partners».





### **PRODUCTS**

An unmanned aerial complexes of «Spaitech» company allows:

- conducting various intelligence and monitoring types including state borders patrolling;
- tracking immovable and moving objects, and determining their coordinates;
- carrying out automatic tracking of still and moving targets;
- target aiming and artillery fire correction;
- airborne data relay;
- conducting situation monitoring from various sensors (temperature, humidity, radiological background, wind strength and direction, etc.)
- carrying out area monitoring for military and civil operations conduct.

## DISTINCTIVE ADVANTAGES OF UNMANNED AERIAL COMPLEXES SPAITECH

## RAPID DEPLOYMENT.

Complexes rapid deployment and preparation for operation

#### MOBILITY.

The mobile package allows complexes carriage by 2 persons using no transport.



#### EASE OF USE.

No extra area for launching and landing required



#### **EFFECTIVENESS.**

Effective operation in any daytime and any weather conditions

#### UNIVERSALITY.

Integration in other management systems

#### QUALITY.

Photo and video shooting (HD format)

#### **FUNCTIONALITY.**

Analysis and reporting of received records.
Surveying with further geo-referenced panoramic pictures received

#### SELF-SUFFICIENCY.

Flight on predetermined course or coordinates

#### CONVENIENCE.

Simultaneous online data transfer to operator screen and remote video terminal



## TECHNOLOGICAL EFFECTIVENESS.

Scalability and production establishment without reference to territories

#### RELIABILITY.

Tasks performing while control and GPS signals jamming. Reliable countering electronic warfare means. Real operation experience in combat situations.

#### SAFETY.

Data management and transfer through secured digital channel according to NATO standards



## **SPARROW**

Unmanned aerial complex «SPARROW», 1st class battlefield



#### **SPECIFICATION:**



Maximum take-off weight





3,3 kg

Powerplant electrical



Endurance up to 60 min



Maximum flight altitude 2000 m



Landing by a parachute



✓ Wingspan 980 mm



Operation distance



70 km



Flight speed



from 60 to 120 km/h



Operation range



online



20 km



Launch

from the catapult

**Navigation** 

IMU, Global Navigation Satellite System

#### **Sensors**

Two-axis stabilized gimbal with 10x video camera or thermal imager Data transfer, encryption

Digital channel with key 128 bit

## **SPARROW LE**

Unmanned aerial complex «SPARROW LE», 1st class tactical, battlefield



#### **SPECIFICATION:**



Maximum take-off weight



7,5 kg



Powerplant electrical



Endurance up to 3,5 hours



Maximum flight altitude





Landing

by a parachute with air cushion system; as a plane



✓ Wingspan

3 m



Operation distance 250 km



Flight speed



from 60 to 150 km/h



Operation range online 40 km



Launch from the hand

**Navigation** 

IMU, Global Navigation Satellite System

**Sensors** 

Two-axial pairing gimbal with 10x video camera and thermal imager, or split one with 30X video camera

**Data transfer, encryption** 

Digital channel with key 128 bit



### **ANSER**

Unmanned aerial complex «ANSER»

#### **SPECIFICATION:**



Maximum take-off weight

23 kg



Powerplant internal combustion engine



Endurance

from 10 to 12 hours



Maximum flight altitude 3000 m



Landing

by a parachute & air system; as a plane



Wingspan

3,5 m



Operation distance





Flight speed

from 70 to 120 km/h



Operation range online





Launch

from the catapult; as a plane



**Navigation** 

IMU, Global Navigation Satellite System

**Sensors** 

FPV camera, two-axial gimbal with 30x video camera or thermal imager Data transfer, encryption

Digital channel with key 128 bit

#### COLUMBA

Unmanned aerial complex «COLUMBA»

#### **SPECIFICATION:**



Maximum take-off weight

7 kg



Powerplant electrical



Endurance up to 120 min



Maximum flight altitude



Landing by a parachute



Wingspan





Operation distance





Flight speed from 60 to 120 km/h





online





Launch bungee



**Navigation** 

IMU, Global Navigation Satellite System

**Sensors** 

Two-axial gimbal with 10x-32x video camera or thermal imager

Data transfer, encryption

Digital channel with key 128 bit



## **ARDEA**

Unmanned aerial complex «Ardea», 1st class tactical, battlefield



#### **SPECIFICATION:**



Maximum take-off weight

9 kg



Powerplant electrical

Endurance up to 2,5 hours



Maximum flight altitude **2500 m** 

Landing vertical; as a plane



✓ Wingspan



Operation distance



150 km



Flight speed



from 60 to 150 km/h



Operation range online



40 km



Launch

vertical; from hand

#### **Navigation**

IMU, Global Navigation Satellite System

#### Sensors

Two-axial pairing gimbal with 10x video camera and thermal imager, or split one with 30X video camera

#### **Data transfer, encryption**

Digital channel with key 128 bit





## COMPANY STRUCTURE

«Spaitech» is a scientific & production enterprise of the complete cycle that includes:

Scientific construction department

Production complex

Training center

Service

#### DEVELOPMENT

«Spaitech» S.P.E. LLC produces unmanned aerial complexes on the basis of its own developments in aerodynamics, avionics, microprocessor technologies, computer technologies, and software.

After the basic concept is approved, the scientific construction department of «Spaitech» company creates thoroughly detailed 3d-model of the further product. A huge experience in efficient developments allows developing an unmanned aerial complex from scratch successfully and modifying existing projects for specific aims and conditions. Besides the company specialists continuously seek new innovative solutions and monitor the latest developments in related areas to develop the company further, enhance the quality level and effectiveness of the products created.

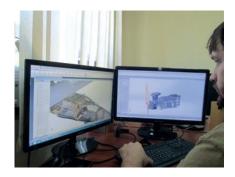
Lead engineers and programmers in unmanned aerial vehicles sphere work in the developments department, who repeatedly became participants of international exhibitions and were awarded at the international level.

Many products of «Spaitech» company are innovative and protected by appropriate patents and certificates.

The whole development process is carried out using cutting-edge technologies with unique materials and equipment. Scientific construction department of «Spaitech» company possesses own experimental production, which ensures producing and testing of the equipment and software prototypes in the shortest possible time.

In addition to development complete cycle, «Spaitech» company performs a complete preparation for production technology, a full package of documentation for production and operation of its own unmanned aerial complexes.

At present time, our company production sets a requirements bar for unmanned aerial complexes in Ukraine and continuously enhances its own possibilities conducting an analysis of the products created and improving existing developments.







## PRODUCTION COMPLEX

Cutting-edge technologies and high-tech materials, patented developments in aerospace construction sphere and huge practical experience of many high-qualified specialists are used to produce a complete spectrum of unique benefits of unmanned aerial complexes «Spaitech».

A modern production ensures a complete cycle of unmanned aerial complexes creation, including all necessary tooling and equipment. Matrices for the further creation of light and super strong frames of aerial vehicles are created from scratch in "Spaitech" production halls.





The elements for further constructions, which are arranged in a certain way in the matrix, glued and kept under pressure at the required temperature, are cut in the composite hall from many unique innovative materials certified for aviation products creation.





Certain tools and equipment, high-tech tooling and specialized skills of specialists are used in all production stages. These all serve for important tasks performing to create technological constructions, which allow aerial vehicles of «Spaitech» company demonstrating unique specifications - low weight, strength, flight time, reliability and functionality.







The company possesses modern electronic equipment that ensures implementation of modern solutions in the management and communication spheres. Components of leading world producers are used to create electronic boards for a complex, all components should pass the incoming inspection. After the management boards are arranged, a navigation system, the complex's all system calibration, communication with ground management station adjustment is completed, the ground testing of all systems are performed. The further testing is conducted in the field where it is checked if indicators assessment answer set goals.







The production capacity of "Spaitech" passes a regular certification and is complied with DSTU. Military acceptance of each production stage is also performed, in case state contracts conducting.







## SAFETY AND QUALITY

«Spaitech» company develops, produces and presents high-quality unmanned aerial complexes on the market and offers the best service.

The complex approach to quality is one of the key factors for reliability and leadership of our products and services.

All our products and services comply with international standards of safety and quality.

## SOCIAL ACTIVITY

«Spaitech» company takes part in volunteer programs in ATO zone in Ukraine, repairs unmanned aerial complexes, provides support for carrying out military tasks.

Besides, one of the important company's activities is training and preparation of young professionals for the industry.

#### SERVICE AND TRAINING

«Spaitech» company offers technical and information support, provides warranty and post-warranty maintenance of its own products:

- rapid execution of a complete cycle of repairs and replacements;
  - supporting and regular update of complexes software;
- systematization and analysis of information about complexes operation for further modernization.

Manufacturer of unmanned aerial complexes is able to offer a training course for customer's operators if required before the complexes are received.

This course is conducted on the enterprise base and includes three stages:

theoretical training

practical training with flight simulators

field training practice







